

An Enterprise Project Management Model for the Transformation
of a Telecommunication Operator Organization
(Volume 1: Thesis)

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Abstract

This research study contributes to the knowledge through the development and implementation of an Enterprise Project Management Model (EPMM). The EPMM was designed to link the strategic formation and planning with implementation using project management tools and techniques. The EPMM was based on the concept that strategies are broken down into corporate objectives, which then are translated into strategic functional objectives. The functional objectives are further translated into projects, and programs.

The research methodology that was adopted in this study was action research utilizing different data collection methods quantitative and qualitative. The data collection methods were: survey questionnaire, document analysis, and interviews. The action research took place in a large International Telecommunications Operator located in the Arabian Gulf.

The new EPMM contains two parts, namely: the deliberate strategies and emergent strategies. There are two main phases for the deliberate part: strategic planning and projects implementation. And the emergent strategies part is mainly designed to account to any emergent ideas that might come after the regular planning cycle completed.

The implementation of the EPMM in the sponsor organization has improved the execution of strategies through better control and planning over the execution of project and programs. Also, the maturity model of project management for the sponsor organization has improved. After the implementation of the EPMM, the strategic planning part phase was modified from being detailed in identifying the tools and techniques to more high level steps defining the themes of each phase and allowing the specific techniques and tools to the organization to select, because the selection of tools and techniques for strategic planning depends on conditions such as: the structure, the culture, the industry and the market.

Dedications

To: my wife and children with love.

Declaration

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Glossary of Terms

Term	Meaning
AT & T	American Telephone & Telegraph Company
EPMM	Enterprise Project Management Model
GSM	Global System for Mobile communications
INTL Ops.	International Telecommunication Operators
MSC	Mobile Switching Center
Sohar	A city in the north part of Oman
Sponsor organization	Oman Telecommunications Company (Omantel)
TRAU	Transcoders Rate Adapter Unit
Vendors	The telecommunications equipment and services providers in Oman.

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Chapter One: Introduction

1.1 Introduction

This chapter provides an overview of the research journey by presenting the context and rationale, the aim and objectives, the research questions, the research design, the research findings, and lastly the structure of the thesis.

1.2 Context and Rationale

For any organization regardless of its industrial location, the implementation of strategies is an important, if not ‘the’ most important aspect of its business. This is because it defines its position in the market by identifying the customers, the products and the method or way these products will be offered. According to Markides (2000: 1), *‘strategy is all about making tough choices in these three dimensions: Who should I target as customers? What products or services should I offer them? How should I do this?’* In order for an organization to successfully define its position, it requires a thorough process that links its strategic choices with their implementation. It is asserted that such a process is required to map the translation of organizational corporate strategies into project strategies. Archibald (1987) developed a model that explained the relationships between the objectives at the corporate level, at the functional level, and at the operational level. However, this model had no detail emphasise on the ways and tools of translating these objectives at the various levels in an organization.

The literature review on corporate strategy revealed that it only addressed those elements related to the planning and formulation of strategy at the corporate level; and little has been written about how corporate strategy gets translated down into the implementation levels of organizations (Morris & Jamieson, 2004).

Also, several sources in the literature have written about the use of project management approaches as general management tools in organizations (White *et al*, 2000; PMI, 2000; Kerzner, 2001; Dinsmore, 1999; Turner, 1999). However, none of these sources have developed a process or a model that links project implementation to the overall strategies of the company. For example, the Project Management

Institute Body of Knowledge, PMI-BOK, 2000, though it is widely accepted as a guide for the professional practitioners, it has been found to have serious shortcomings. These shortcomings are: it does not include anything detailed on project strategy. It has nothing on value management at project definition stage, and it has little on the linkage of projects, programs and portfolios (Morris, 2005). The Association for Project Management Body of Knowledge (APM-BOK, 2000) has addressed these shortcomings, but it is asserted that it addressed these issues from project-specific perspective only and not from an overall company's perspective.

Since the 1980s, the telecommunication industry in general and specifically in the Middle East has been faced by the following dilemmas:

1. The deregulation of the industry by the privatization of the state-owned monopolies and the liberalization of the markets to allow free competition (Harker, 1996),
2. The acceleration of technological changes, which means shorter product lifecycles (White *et al*, 2000).

These two dilemmas demanded telecommunication companies, in the region, to go through a change process so as to shift away from their monopolistic situation in their market places to a more competitive situation. This in turn demands efficient processes that integrate the focused strategic planning processes with the implementation processes to shorten the time to market and gain competitive advantage. This need for change made a good environment for the proposed research. Therefore, this research study was initiated to develop and investigate the benefits of using an Enterprise Project Management Model (EPMM) for the implementation of strategies through bridging the gap between the vision of the company and the implementation of its various projects and programs. The proposed EPMM was tested in a large international telecommunication operator in the Arabian Gulf (the sponsor organization). Such a model was found to enhance the use of project management as an overall management tool. Also, the proposed EPMM helped the sponsor organization to transform into an efficient mode in the implementation of strategies.

1.3 Aim and Objectives of the Research Study

The primary aim of this research was to contribute to the knowledge in the topic area through developing and testing a novel:

‘Enterprise Project Management Model (EPMM) to be used to implement corporate business strategies in an international telecommunication operator’.

The principal objectives of the research study were:

1. To gain theoretical knowledge and understanding of the strategic planning and implementation processes,
2. Evaluate existing project management processes for their applicability to enterprise project management in telecommunication industry,
3. Review and analyze the existing strategic planning and implementation processes used in practice.
4. To design, validate and implement an appropriate model for EPMM in a telecommunications operator,

In the context of this research, projects are defined as ‘*a means of organizing activities that can not be addressed within the organization’s normal operational limits. Projects are utilized as a means of achieving an organization’s strategic plan.*’

PMIBoK (2004: 7). Therefore, projects are used as the direct translation of business level strategies for client-based organizations to ensure effective and efficient execution.

1.4 Research Questions

In achieving its aim and objectives, this research was set to investigate and answer the following two questions:

Is there a relationship between strategic planning and development and project management?

Can we use a project management methodology to implement organizational strategies?

1.5 Research Design

The research design was determined by many factors, such as: the prevailing research approach in the discipline in which the study is situated, the nature of the research problems, the scope of work, and the availability of resources required for successful completion of the research such as time, support staff, and finance (Fortune, 1999). There are two main paradigms in research: the positivism and interpretivism.

The positivists believe that the world is all about facts which can be observed and measured by an observer, who remains uninfluenced by the observation and measurement (Fellows & Liu, 2003). Positivist approaches require technical writing and statistical skills (Creswell, 2003). Therefore, it can be said that a positivist approach to research design is related to quantitative research.

However, an interpretivism paradigm is focused on the observations and perceptions of the people involved in the activity or process under exploration and that they can be modified by socialization (Fellows & Liu, 2003). Thus, it can be said that an interpretivist approach to a research design is related to qualitative research.

The use of the two paradigms in construction management research has been a subject for previous debate. For example, Seymour and Rooke (1995) supported by Raftery *et al* (1997) suggested a shift from the positivism towards the interpretivism or the use of multi-method approaches. But, Runeson (1997) supported the positivist paradigm, as he believed positivism was the basis of all good science.

Given the factors that commonly determine the research design of a study that mentioned earlier, and the problem that this research was trying to solve that was practical in nature and the sponsor organization was undergoing changes due to external factors which made good environment for the research. Therefore, action research methodology was selected for this research study. The data collection methods, used in this research study, were based on a mixed-method approach. This approach was selected because the nature of the identified research problem required social interactions in the form of interviews to be undertaken so as to uncover rich, deep data. Quantitative methods were, also, used (questionnaire survey) to measure the effectiveness of the existing project management processes in the sponsor organization prior and to support the research need.

The letter, shown in the next page, indicates the permission granted for the researcher from the Executive President of the sponsor organization to pursue an action research. The permission was granted on 7th December 2002 to assess the need for project management processes and to develop and implement a project management model to link strategic development with implementation.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



Date: 7th December, 2002.

TO WHOMEVER THIS MAY CONCERN

SUB: PERMISSION TO PURSUE RESEARCH

This is to Certify that Mr. Rashid Ali Al Balushi, Staff No. 23030, Director of Project Management office, joined Oman Telecommunications Company (Omantel) on 18th November, 2002. He has been granted a permission to conduct an action research within Omantel to:

- (i.) Assess the need for Project Management processes
- (ii.) Develop and implement new Project Management Model that would be used to enhance the implementation of strategies.

Eng. MOHAMMED ALI AL WOHABI
EXECUTIVE PRESIDENT



The actual permission letter can be found in **Appendix 1**.

1.6 The Research Findings

The research found that the sponsor organizations did not have project management processes, which made the projects' execution, suffer major delays and hence affected the execution of the strategies. For example, major infrastructure expansion projects found to be suffering delays in their time schedules for three months that caused a loss in revenue equal to (611,450 US\$), also, the findings from documents review and interviews supported the research need, as quoted in the report in Appendix 5, '*setup a project management organization to facilitate the project coordination process and to allocate priorities*' (P: 20 in the Sohar MSC report, under conclusion and recommendation section) please refer to Chapter Seven, section 7.3.1.2 for details. The Enterprise Project Management Model (EPMM) was designed in two parts, namely: one for the deliberate strategic planning and the second for the emergent strategic planning. The deliberate part consists of two main phases, the strategic planning and the project implementation (as shown in figures: 8-3 & 8-4). The EPMM was reviewed by three experts in the field before it was implemented within the sponsor organization on actual projects. After the implementation, the strategic planning phase of the deliberate part was modified to be more generic phases instead of detailing the tools and techniques. For instance, the evaluation of the external and internal environment was mentioned as an overall step without specifying the tools for accomplishing this step like SWOT analysis or PEST (the new revised EPMM after the implementation can be seen in Chapter Nine, figure 9-7). Eight post implementation interviews were conducted to measure the effectiveness of the implementation of the EPMM, and the results that were found can be summarised as: (1) the maturity level of the sponsor organization was rated between (30-60% by four respondents, (against 60-100% for one respondent), which is an improvements from the status before the implementation, (2) the introduction of the EPMM has improved the implementation of strategies in the sponsor organization, (3) communicating the EPMM more within the sponsor organization, raising the competency level of the project managers, conducting more lesson-learnt sessions for both successful and failing projects, and integrating the project management process with other processes, these points were the main suggestions to improve that were emerged from the interviews, for details please refer to Chapter Nine, section 9.4.

1.7 Structure of the Thesis

This thesis was structured to reflect the process of the actual research design. Figure 1-1, provides a graphical representation of the outline research process. As it is seen in Figure 1-1 shows that the thesis is structured into four main sections, namely: (1) Diagnosis, (2) Action Planning, (3) Action Taking, and (4) Evaluating and Specifying Learning. This structure and the research undertaken are reported in the following.

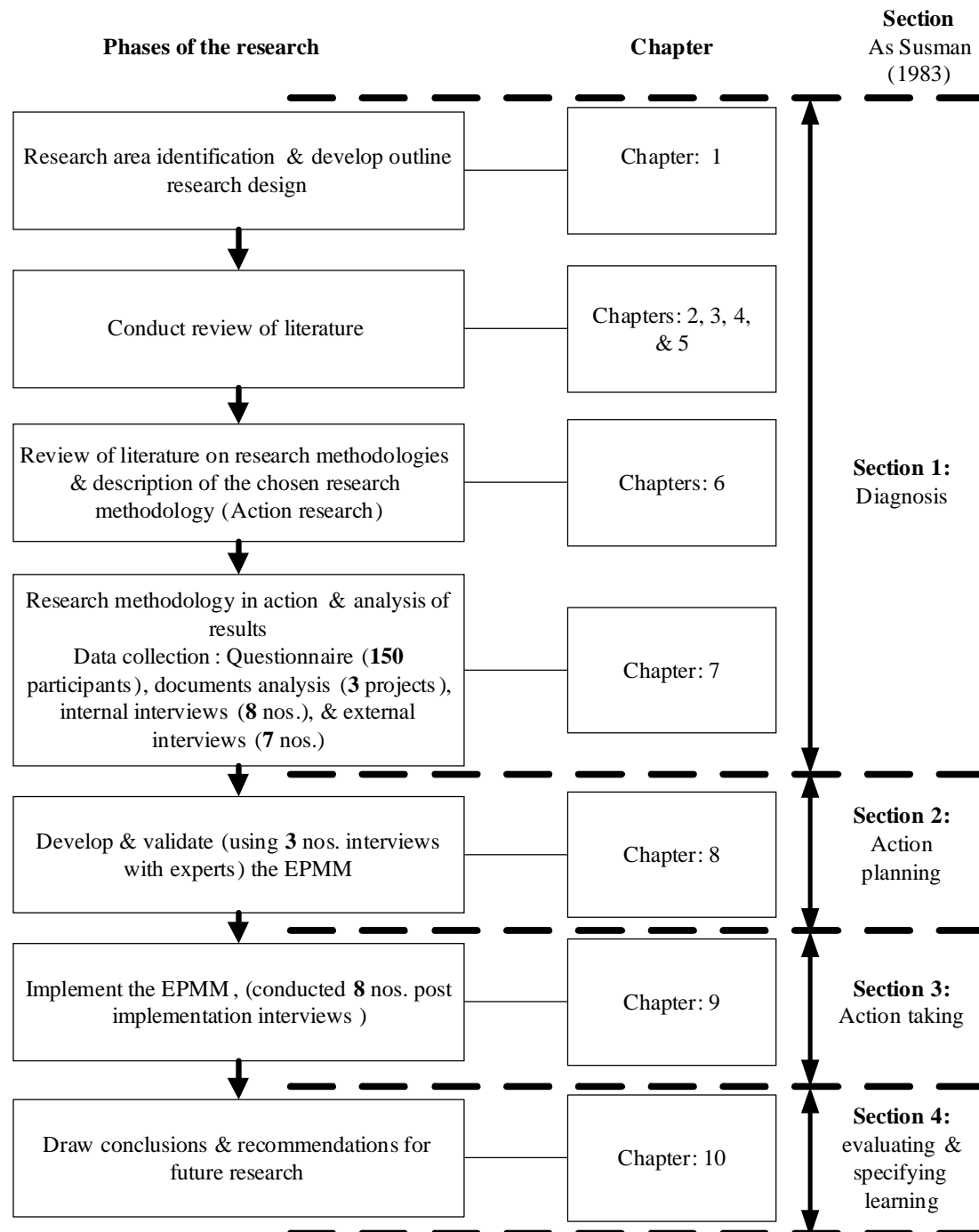


Figure 1-1: Graphical representation of the research outline

All the sections correspond to the phases of the action research model developed by Susman (1983). In **section one**, the research problem was investigated. An extensive literature review was conducted in the topic area related to the research to establish the background to the study, and investigate the problem in the sponsor organization using quantitative and qualitative data collection methods. The outputs from the work conducted in this section one were used in building the Enterprise Project Management Model (EPMM), which was an input to section two.

In **section two**, the building of the EPMM was the main activities along with experts' validation to test the soundness of it with regards to the literature and the data collected. Then the model was implemented on actual projects in the research organization, which were activities in **section three**. **Section four** addressed the evaluation of the whole journey of the research and specifically the impact of the EPMM on the research organization. This was done by the execution of eight post implementation interviews and document analysis.

This thesis is documented in the following chapters:

Chapter one: Introduction

- Chapter one provides the context and rationale behind the research study, the aim and objectives, and the main question of the research.

Chapter two: The telecommunications industry and Omantel

- This chapter provides the reader with an overview of the telecommunications industry, its trends, market layers, and changes that caused its transformation. It also presents brief description of the Omani telecommunications market and the sponsor organizations (Oman Telecommunications Company, Omantel).

Chapter three: Developing and managing corporate strategies

- In this chapter, the concept of strategies and how they are defined in the context of the organization is discussed. The chapter also, provides explanations on the differences between strategic planning and strategic management. Different models of strategic planning are shown for comparisons and critical evaluation. The main requirements for successful implementation of strategies are presented as well.

Chapter four: Enterprise project management

- This chapter focuses on the concepts of traditional project management in comparison with enterprise project management. Also, it covers the processes

and tools necessary to apply enterprise project management in an organization. The last part of the chapter discusses performance management and measurement frameworks required for successful implementation of enterprise project management processes.

Chapter five: Organizational learning and change management

- The areas of organizational learning and change management are an important aspect for this research, because the introduction of the new EPMM within the sponsor organization will require it to go through a change process and the outcomes need to be translated back to the corporate knowledge. Hence, this chapter focuses on reviewing the available literature on organizational learning and knowledge management. In addition, the main processes, drivers and way of managing change are presented.

Chapter six: Research methodology

- One of the criteria for success in any research lies in its methodology. Therefore, this chapter provides an analysis of the literature on the various research methods that lie under the qualitative, quantitative and mixed (triangulation). Detailed description of the chosen research methodology is discussed, also, along with its data collection methods, and the reasons behind its selection.

Chapter seven: Results

- The findings from the different research methods that were applied during the diagnosis phase of the research are presented and analysed in this chapter. For the quantitative data, descriptive and statistical inferences (t-test) analysis methods were used. For the qualitative data, thematic and comparative analysis techniques were used (Dawson, 2002).

Chapter eight: The Enterprise Project Management Model (EPMM)

- This chapter describes in detail the concepts, phases, processes and activities in the model. It also, presents the validation process of the EPMM.

Chapter nine: The implementation of the EPMM

- Chapter nine provides the various effects of the implementation of the EPMM, the benefits, and a discussion on the results of the post-implementation interviews and lessons learnt.

Chapter ten: Conclusion, limitations, reflections and recommendations for future work

- The work undertaken in this research is concluded in this chapter. Limitations, reflections on the learning achieved in executing the research study, and the recommendations for future work in this topic area are also provided in this chapter.

1.8 Summary

In this chapter, an overview of the area of research study was provided, along with the research context and rationale. Also, the main research questions were presented and the basis for the research design was set out. Lastly, the phases of the research and the outline of the structure of the thesis were presented.

Chapter Two: The Telecommunications Industry and Omantel

2.1 Introduction

Since the break up of The American Telephone and Telegraph (AT&T) Company into one long distance and seven regional telephone operating companies in the 1980s, the world telecommunication industry has been undergoing significant changes and these changes have been derived by: technology changes, customer demand, and marketplace competition or liberalization (Liebhaber, 1992). The effect of these changes on the Omani telecommunication industry started with the establishment of the Telecommunication Regulatory Authority (TRA) as a corporate body on March 2002.

The main aim of this chapter is to set out the context for the thesis by presenting the nature of the telecommunications industry in general and the Omani telecommunications market in particular. Also, it will give an introduction to the research organization, which is the Oman Telecommunication Company (Omantel). This is the biggest telecom operator in Oman, illustrating the external changes that have occurred to make it change internally and it provides a rich environment for the research.

2.2 The Telecommunication Industry in General

The fast changes in technology, the liberalization of markets, and changing market demand are the main factors that have affected the global telecommunication industry. The advancement in technology has caused change in the customer demand for the services. Customers' acceptance of a service depends on its real value and the intuitive satisfaction generated from using the service. If a new technology is to be accepted by the end customers, then a service provider should integrate consumer's perceptions, marketing sensitivity, application domain knowledge, cost/profit analysis, and advanced network and information technologies (Kuo, 1998). The customers' needs for telecommunications' services depend on many factors such as: the extra amount of spending they have on non-basic commodities, their age, and their level of education etc. The liberalization of the markets caused by the introduction of competition has started since the breaking up of AT&T in USA about fourteen years

ago. Since then, the challenge of emerging competition from global players, which forced government to privatize the state-owned operators and regulate the markets. The privatization and the liberalization of the markets have made these operators transform themselves into a more private and more competitive environment, where efficiency in every part of the business (operation, marketing, product development and launch) is the main objective of the company.

Technology is changing at a faster pace, and this change is controlled by parties other than the service providers (system and equipment vendors). The fast changes would reduce the span of products' lifecycles and this would exert pressure on the services' providers. For instance, if one remembers the pager when it was introduced, it was at the top of the demand curve, but later on when the mobile phone was introduced, it was found it substituted the pager, so much so that it is now almost disappeared. Also, technology changes force convergence of some services like the utilization of mobile phone as an internet access instead of the computer desk-top. The convergence of technologies will lead to new challenges such as: knowing what customers will be willing to buy and how much they will be prepared to pay, the access to contents and services that match customers' taste, and managing the content across the network (Harker, 1996).

The above changes and challenges indicated above are summarized in Figure 2-1, below, Al-Balushi (2004).

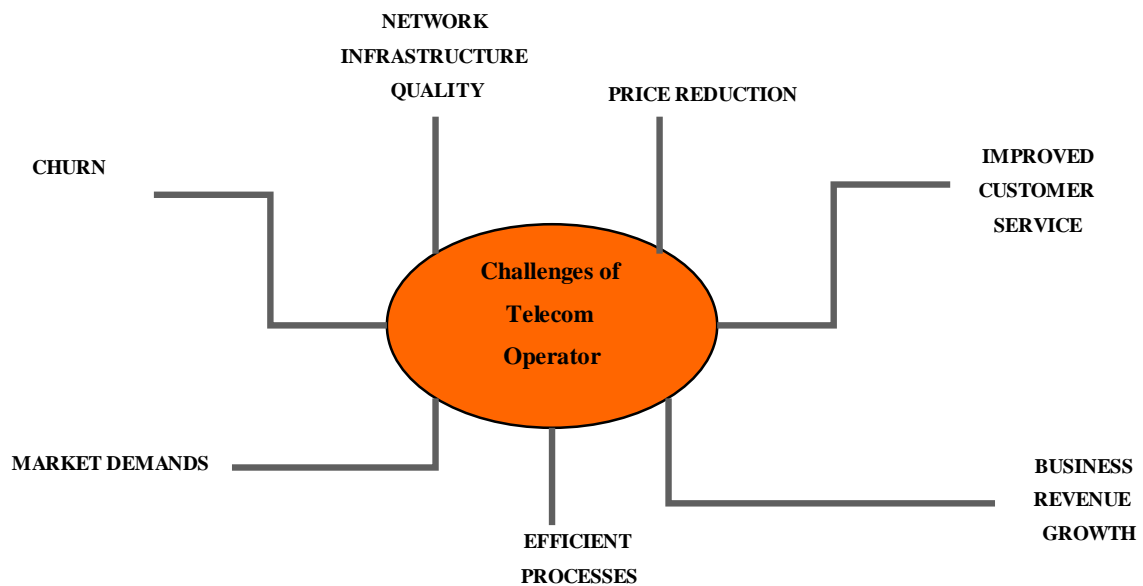


Figure 2-1: Challenges of the Telecommunication Industry

The term churn means that, when competition is introduced, customers will have more choices, so they will leave voluntarily from the network of the monopoly operator.

All the challenges that are shown in figure 2-1 will result in two main issues that the service provider needs to balance, and these are: (1). the tariff will be pushed down and (2). It will increase the demand for more value-added services as shown in Figure 2-2, below.

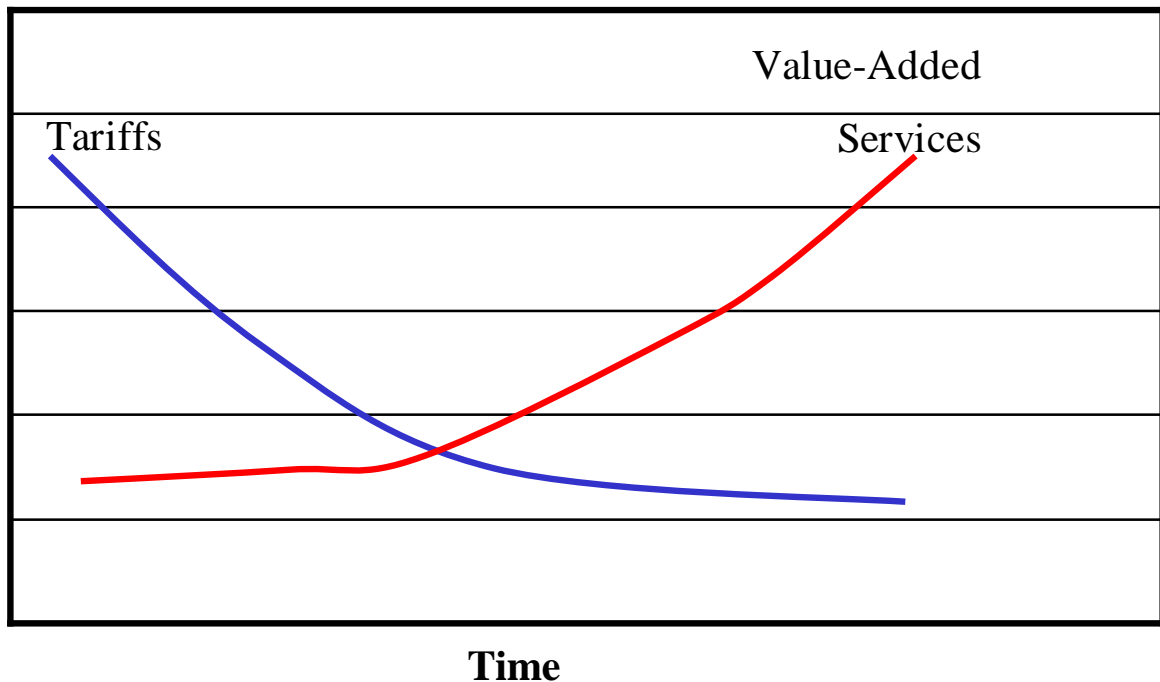


Figure 2-2: Dilemmas of the Monopoly Operator, (Source: Al-Balushi, 2004)

The pressure on the reduction of prices (tariffs) for telecommunications services is coming from the increased competition, and the increased levels of customer demand which are a result of the changes in the customer perceptions towards the products and services. All of these challenges can not be achieved unless a transformational change occurs in the service provider organization, to drive toward efficiency and product innovation.

The new product development processes that were appropriate when technology changes and competition occurred in discrete steps are no longer adequate, because of the continuous innovation in products and services'. In this era of innovation, the

product lifecycle could actually be shorter than the development time (Hughes and Chafin, 1996). Therefore, the product development processes should be linked to an iterative process focused on customer value and then linked to a project implementation plan (i.e. linking the front-end of the product development process with market research process). It has been acknowledged that, the application of project management methodologies to product development will provide great value in defining the front end (Morris, 2005). Bryde (1995: 29) defined the following criteria for project management processes in the telecommunication industry:

- The required project must meet specified business case,
- The project management team must involve operational members for smooth hand-over,
- All the elements of the project must be adequately defined,
- Clear scope change management process is defined that involves the consideration of the implications of the changes,
- Clear criteria must be defined for performance measurement during execution and handing-over.

The New Product Development (NPD) process and project management methodology can be used to deliver products and services in the telecommunication industry; because the NPD process provides control gates to evaluate performance at any point during the lifecycle of the project (Cooper, 1990). And the project management methodology provides generic project phases and control measures. However, one needs to pay close attention to time as a critical factor in the development of new products, because it may be necessary to achieve faster deployment of services to gain competitive advantage.

The changes in the telecommunication industry will not happen in one time; instead it will take place in four phases (Harker, 1996):

1. The first phase will be the transformation of basic voice and data services to a sophisticated world-class service, the comparison of the telephone-density in developed countries of 45-65 lines per 100 people, but more than 50% of the world's population is located in countries with a telephone density of less than one per 100 people.

2. The second phase will be a focus on price, substantial reductions and rebalancing of tariffs will occur as competition attacks the monopoly operators,
3. The third phase will be the availability of high-speed telecommunication services, as competition begins to erode profit margins, operators will offer high-speed transmission, and higher bandwidth services.
4. The fourth phase will be the provision of high quality customer services, once products reach maturity, and then it becomes difficult to differentiate between providers on products, features or price.

The establishment of a regulatory body for decision-making procedures is important to maintain the confidence of the private investors and customers. According to Pisciotta (1994: 30) '*many countries look to the US model for guidance, but procedures have to be adapted to suite the legal systems, practices, and customs of particular countries. Also, to some extent regulatory procedures will reflect cultural norms as well as legal requirements*'.

2.2.1 Market Layers

In general, the telecommunication industry can be broken down into three sub-industries (Kuo, 1998): Internet, Conventional Telecommunications like voice telephone providers, and Entertainment Cable Television Industry (CATV). The market consists of seven layers as shown in Figure 2-3 below.

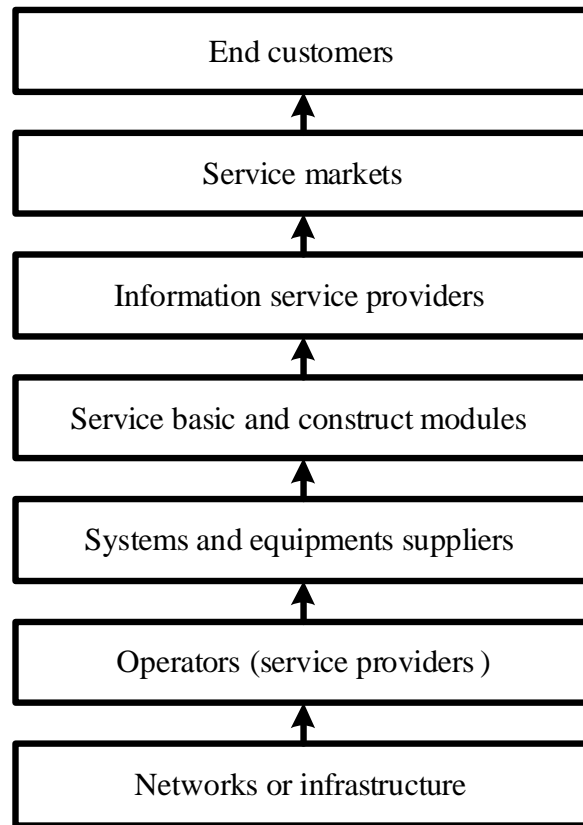


Figure 2-3: Telecommunication Market Layers , Source: Adapted from Kuo, 1998)

The monopoly operator usually controls the networks and outsources other services from other providers. The service basic and construct models, and information service providers are those who provide information systems software and hardware. Figure 2-4 defines the services based on two categories of customers, namely: business and residential.

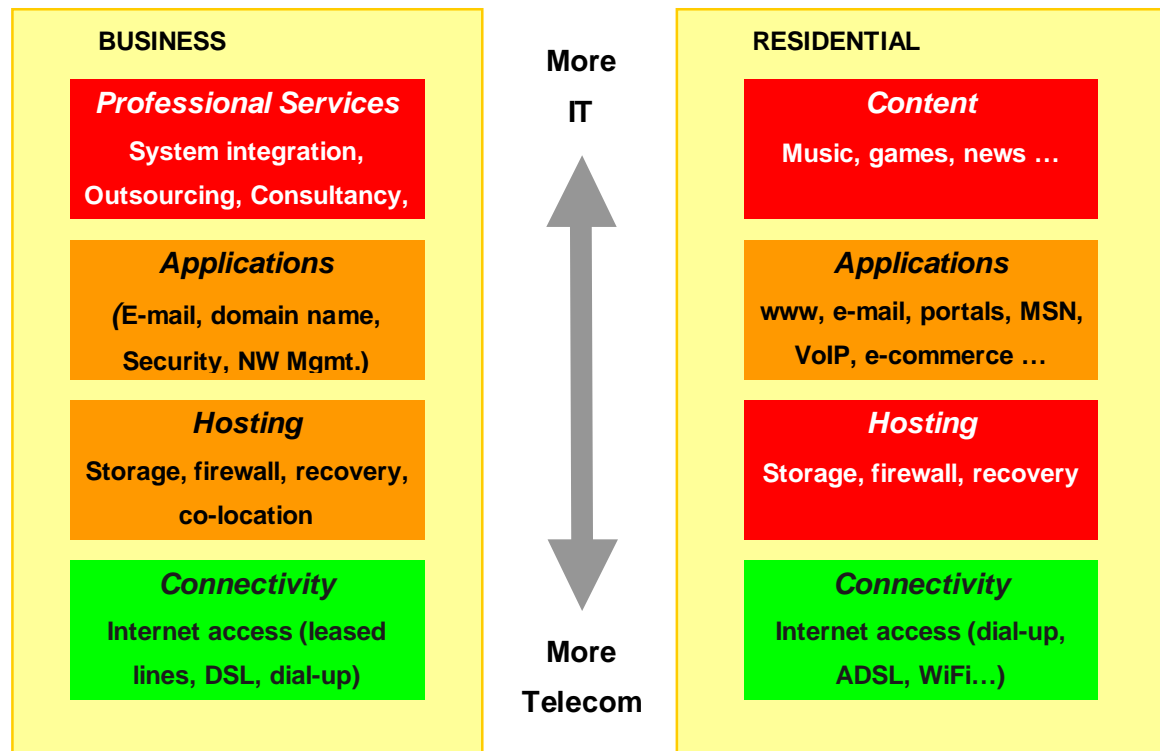


Figure 2-4: Categorization of Customers and service offerings, (*Source*: Omantel, 2006)

Figure (2-4) emphasized on the point that as we move up in the value chain, technology tends to converge between information technology and telecommunications. This movement puts a burden on operators to learn new competencies and skills.

2.3 Omantel & the Omani Telecommunication Industry

Oman has a stable political, economic and social system complemented by excellent relationships with other countries in the Arabian Gulf and the rest of the world. The area of Oman is about 309,500 square kilometer, and consists of eight regions or governorates. In October 2002, Oman became a member of the World Trade Organization (WTO). The population of Oman was over 2.34 million, out of which 1.78 million are Omani nationals and the remaining 0.56 million are expatriates (Population Census, 2003). Oman's total exports in 2003 were Omani Rials (OR) 4,487 million having grown at an annual average of 11.7% between 1993 and 2003 (IPO Perspective, 2005). The Riyal has been pegged to the US dollar since 1973. The exchange rate has remained steady at 1 OR equal US\$0.385 since 1986. Table 2-1 will show some key economic indicators.

Table 2-1: Key Economic Indicators of Oman (source: IPO, 2005).

Indicators	1999	2000	2001	2002	2003
GDP at market price (OR millions)	6,041	7,639	7,670	7,807	8,343
GDP growth (%)	11.5	26.5	0.4	1.8	6.9
Population ('000)	2,325	2,402	2,478	2,538	2,341
Gross national income per capita (OR)	2,483	3,064	2,985	2,957	3,430
Oil and gas industry as % of GDP	39%	49%	42%	42%	41%
Non-oil and gas industry as % GDP	8%	9%	12%	11%	12%
Agriculture as % of GDP	3%	2%	2%	2%	2%
Services as % of GDP	52%	43%	46%	47%	46%
Inflation rate (annual %)	0.4	-1.2	-1.7	-0.5	-0.1
Foreign exchange reserves (OR million)	1,090	941	940	1,220	1,382
External debt (OR million)	1108	969	798	568	446

Privatization and development of a vibrant private sector are at the top of the Government's agenda on economic strategy. The Government has taken steps toward this strategy by the implementation of a number of independent water and power supply companies, and the privatization of the state –owned telecommunication operator, Omantel.

The Omani telecommunications market is in the process of liberalization, as on February 2005, a second mobile telecommunications license was granted to a second mobile operator. As compared to other Gulf States, Oman's market is the least developed. Table 2-2 shows general telecommunication indicators in the Gulf States (TRA, 2004).

The market can be divided into three categories depending on the services provided, namely: the fixed market, the mobile market and the internet market. The most growing market out of the three is the mobile market. The total number of mobile subscribers to Omantel has grown from 463,900 in 2002 to 806,280 in 2004. The fixed line subscribers were 227,600 in 2002 and in 2004, they were 228, 323 (IPO Perspective, 2005).

Table 2-2: Telecommunications indicators in Gulf States, (*source: Adapted from TRA, 2004*)

Country	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
Population ('000), 2002	670	2,360	2,341	610	23,060	3,200
GDP/Capita US\$ (2001)	12,068	14,260	8698	27,494	8,343	19,750
Total number of subscribers (000) (2002)	564.4	1,350.3	827.358	443.2	5,761.6	3,521.7
Teledensity (2002)	26.2	20.0	10.19	28.9	14.1	34.2
Mobile subscribers (000) (2002)	389	877.9	589.7	266.7	2,528.6	2,428.1
Fixed line subscribers (000) (2002)	175.4	472.4	227.6	176.5	3,233	1,093.6

It is obvious from Table 2-2 that the numbers of subscribers for both fixed and mobile services in the Omani market are low as compared to other countries in Gulf Region, which indicates a potential for growth. Therefore, competition has been introduced in the mobile services market in 2005 and will be introduced for the fixed line and

internet services on 2006. This condition put Omantel into a pressured commercial position from three forces:

- The privatization pressure by the government,
- The hit of the competition in all sectors of the business in relatively short period of time, and
- The transformation of the company into more efficient working environment.

2.3.1 Omantel

Omantel, the research organization, was incorporated in 1999 as a closed joint stock company fully owned by the Government of Oman. And in July 2005, it changed into an open stock company, with 30% being offered for the public ownership, and the remaining 70% retained for the Government represented by the Ministry of Finance. Omantel has one subsidiary, which is known as Oman Mobile. This subsidiary is 99% owned by Omantel and 1% by the Ministry of Finance.

Omantel holds two licenses: fixed line, which is for 25 years and mobile license for 15 years. The fixed license grants Omantel the non-exclusive right to provide services such as: local, long distance and international telecommunication services for voice (other than mobile), public data (internet), and all telecommunications services between Oman and other countries. Also, the license allows for the provision of public payphones, calling card services, limited satellite communications, information services (including internet, telegraph and telexes), private telecommunications services, leased circuits, value added services, broadcasting signals, audio or video programs and the sale, lease and maintenance of terminal equipment. The mobile license grants Omantel the non-exclusive rights to provide cellular mobile services, paging, calling cards and value added services. The three services that are offered by Omantel: Fixed line, Internet and Data, and Mobile services, will be discussed in the next sections with regards to the products which are offering and the number of subscribers.

Fixed Line Services

Omantel fixed line services have been growing at slower pace than its other services. The fixed lines usage in 2002 was 227,600 as compared to 228,323 in 2004. The products and services offered for the fixed line subscribers are: postpaid voice access

both for international and national, a prepaid smart card which allows communication from either payphones, or other fixed line telephone, toll free phones, satellite communication services to corporate clients operating in remote areas like oil and gas and banking, and telex and telegraph services.

Internet and Data Services

Omantel first introduced its internet services in 1997. The total number of subscribers for internet and leased circuits (dedicated internet lines for corporations) is 46,653 in 2002 and 51,546 in 2004. The products and services' range is: internet dial-up service, which allows access to the internet, prepaid internet cards, high speed broadband internet services, domain name registration and hosting, and national and international point to point dedicated leased circuits.

Mobile services

In 1996, Omantel launched the mobile services. The total number of mobile subscribers is 463,900 and 806,280 for years 2002 and 2004 respectively. The products and services list are: postpaid and prepaid mobile services, mobile fax and data services, text and multimedia messaging, satellite-based mobile telecommunication services, and paging and roaming with 152 mobile network operators in 73 countries.

Organization Structure

Omantel's current organization structure is shown in Figure 2-5 after it has gone a restructuring on July 2004, in the next page. As a group, Omantel has 2,246 regular full time employees, out of which 208 staff are expatriates and the remaining is Omani. The organization structure uses semi-matrix structure, functions such as information technology and customer services are functional. But, project implementation is a 'strong matrix' (PMIBoK, 2000:18); with the Program office responsible for executing multifunctional multidisciplinary programs, and developing and maintaining the project management methodologies and processes. The enterprise project management model developed as a result of this research project was the basis

for moving Omantel towards the establishment of the program office after the success made by the Project Management Office (PMO) in implementing projects (please refer to Figure 2-5b). And this development is in line with the organization's maturity model requirements, which is the subject of detailed discussion in chapter four.

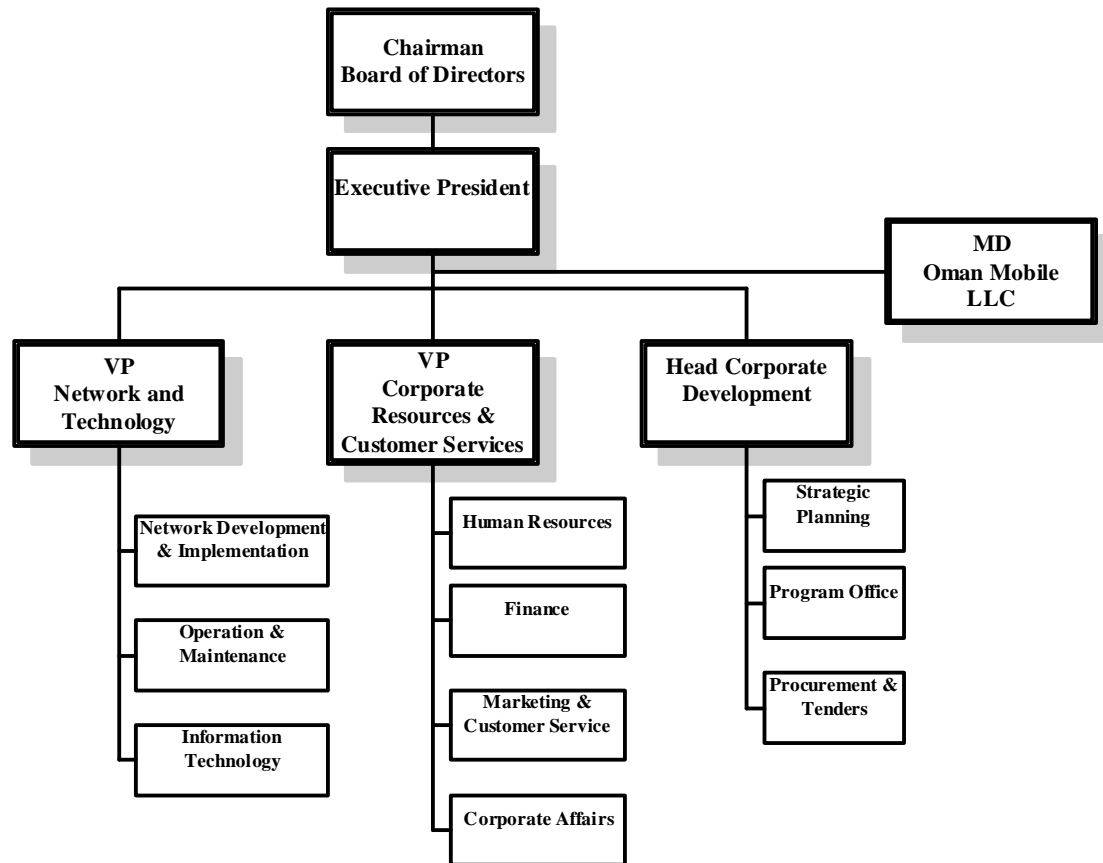


Figure 2-5: High level Omantel Organization Structure

Figure 2-5b, in the next page, presents the organization structure for the sponsor organization (Omantel) before the restructuring that occurred on July 2004. As shown in Figure 2-5b, Omantel was structured based on functional responsibilities. The Project Management Office (PMO) was added to the structure on November 2002 to take responsibility for the implementation of the Enterprise Project Management Model (EPMM). The shaded (Blue color) boxes in Figure 2-5b indicates the positions that were interviewed during the diagnosis phase of this research study, because they were the main stakeholders in the projects' execution process as it will be discussed in details in Chapters Six and Seven.

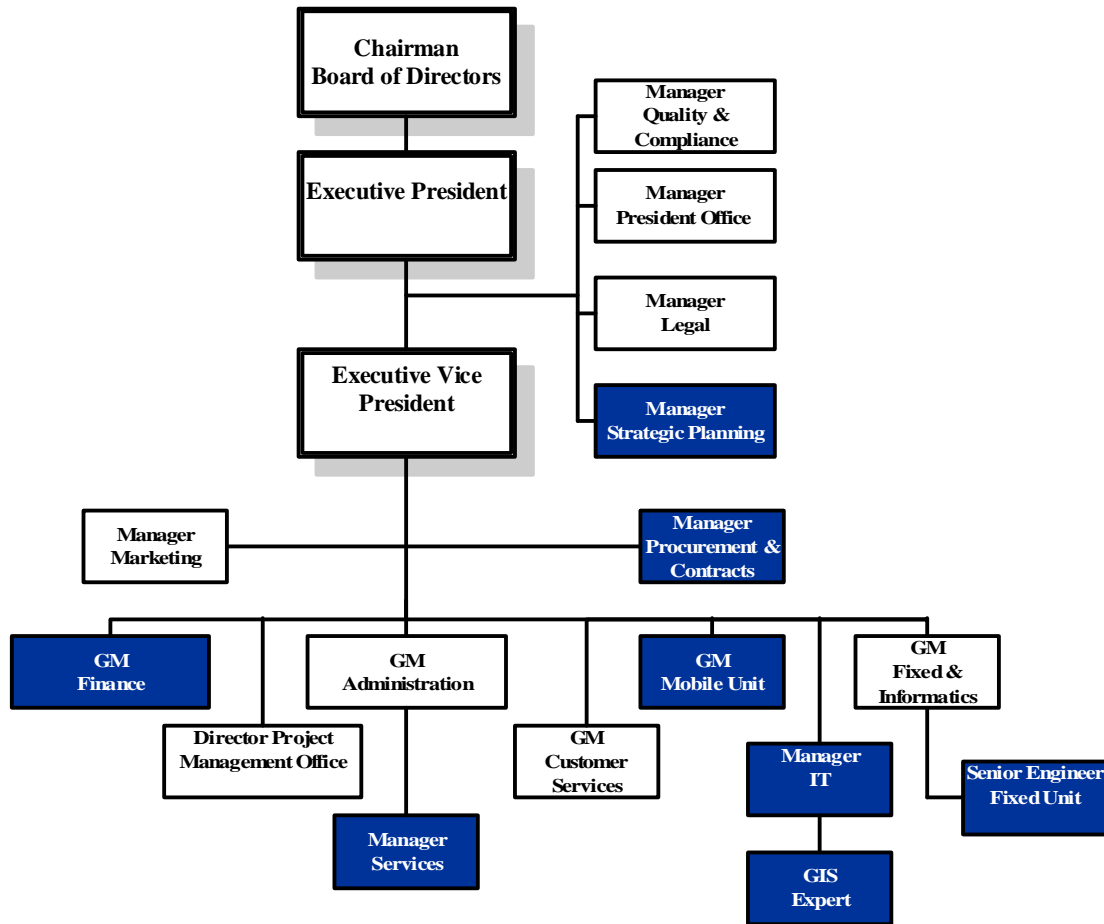


Figure 2-5b: High level Omantel Organization Structure (Before July 2004)

Financial Performance

Due to the increased level of competition, the financial impact on Omantel was high. For instance, in 2004, the net profit after tax was 73.0 million Omani Rials. But, for 2005, it dropped to 65.2 million Omani Rials. And this will continue to go down as competition with other providers will start in the fixed line services. Table 2-3, shows the details of the profit and loss statements for 2004 and 2005.

As can be seen from Table (2-3) that the operating cost has increased for 2005 by 21 OR million which made the net profit for the organization to go down.

Table 2-3: Summarized Financial Performance for 2004 & 2005, Source: Omantel, 2006

Description (Figures in RO Millions)	2004	2005
Total Revenue	245.0	260.3
Controllable Opex.	(71.9)	(79.3)
Uncontrollable Opex.	(93.5)	(107.2)
Total Opex.	(165.4)	(186.5)
Operating Profit	79.6	73.8
Other Income	3.2	1.1
Taxation	(9.8)	(9.7)
Net Profit after tax	73.0	65.2

2.4 The Scope of the Research

Figure 2-6, below, summarizes the transformation journey that the sponsor organization went through at the start of this research study on 2001.

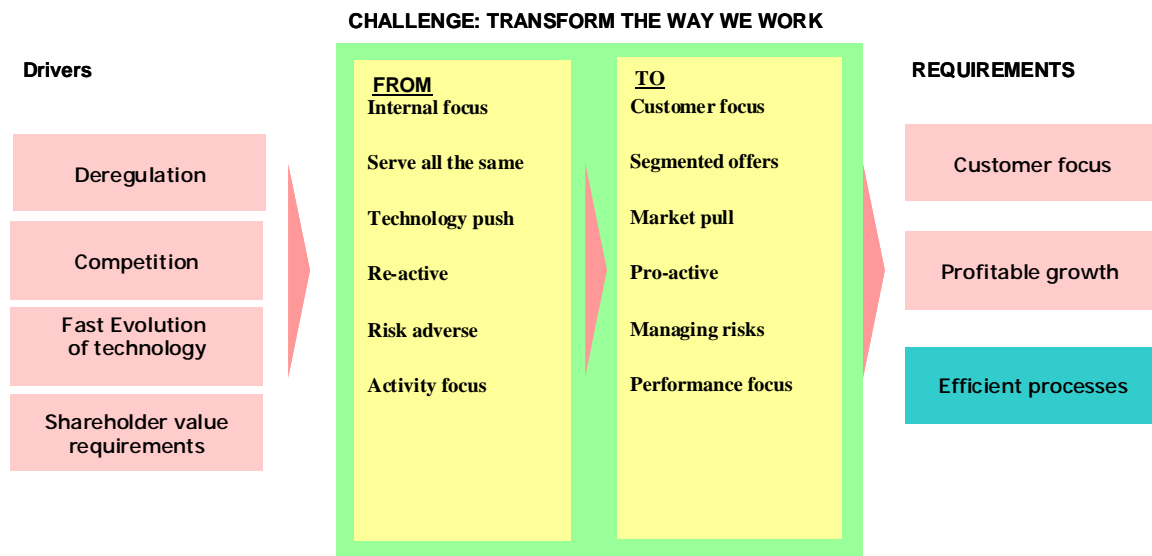


Figure 2-6: Drivers, challenges & requirements of transformation within the sponsor organization

This research focused on bringing efficient processes to execute strategies utilizing project management methodology. As shown in figure 2-6, the main drivers of the

transformation were the deregulation of the Omani Telecommunications Market which lead to competition in the mobile services and later will lead to competition in the fixed services. Also, the fast changes in the technology as discussed in section 2.2.1 have driven the convergence between the different services such as the internet and the mobile services forced telecommunications operators to gain faster competencies and skills and reduce the product development lifecycles. The last driver was a result of the privatization of the sponsor organization. When the sponsor organization was under government control no restrictions were exercised on the spending and the revenue generated. However, the situation has changed after the privatization because the new private shareholders demand for high profits and growth in the business, and these demands are driven by efficient processes and more control on the operation costs. The requirements for effective transformation were, namely: being more customers focused because the customer in a competition environment has a choice to choose between service providers, profitable growth and efficient processes also, were among the requirements for transformation. The research study contributed to the development of the Enterprise Project Management Model (EPMM) that effectively linked the strategies development and planning with the implementation using project management processes and tools.

2.5 Summary

This chapter presented an overview of the telecommunication industry generally with special reference to Oman. The chapter set out the challenges that the industry faces such as: changes in the regulations, competition from global players, technology advances at a rate faster than the product development lifecycles, and the changes in the market demand. These challenges will put service providers in a commercial dilemma as they face pressure of reduce prices and increase their value added services to their customers. For monopoly operators, transformational change, from government owned entities into more efficient private environments, is the option they must take to cope with these challenges. Oman Telecommunication Company (Omantel) has been offering basic services for more than thirty years, but since 2005, competition has started in the mobile services' part of their business. This increased level of competition will force price reductions and erosion of margins. Also, by the end of 2006, competition is expected to hit the fixed and data services. It should be noted that the company has been operating as a government organization for the past

thirty years, although it was established as a corporation in 1999, there have been no serious steps taken to transform the company into a more competitive and efficient business environment. All, these challenges will make Omantel with its need to transform itself into a good environment to conduct the proposed research. As the implementation of an enterprise project management model that links the strategic development of an organization with the implementation of a plan will be the solution that will drive efficiency in the company. This thesis will investigate the process and develop a model that will be discussed in the next chapters.

Chapter 3: Developing and Managing Corporate Strategies

3.1 Introduction

For any organization, strategy formulation and implementation is essential for positioning its resources and capabilities within its operating environment to gain competitive advantage over its rivals so as to achieve value for its stakeholders. This chapter will build the theoretical background to support this argument. Therefore, it will review literature on the concept of corporate strategy, its definitions and approaches, the strategic management process, and the strategic planning models.

3.2 The Concept of Strategy

The word strategy is derived from the ancient Greek word *Strategos*, which means a “general” (Steiner, 1969). Its use is rooted in warfare as exemplified by Sun Tzu, a Chinese General from the fourth century B. C., in his book “The Art of War” (Cited in Bausman, 2002). The principles of warfare strategy as mentioned by Sun Tzu are still applicable to today’s corporations (McNeilly, 1996). In 1962, Alfred Chandler published the first book on the use of strategy in business and is credited as being the first to utilize strategy for business management. According to Chandler (1962: 13), strategy is defined as “the determination of the basic long term goals and objectives of the enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals”. This definition focuses on the utilization of the organization’s resources to achieve long-term objectives. Strategy represents the top management’s plans to attain outcomes consistent with the organization’s missions and goals, Wright *et al*, 1992. The similarities between this definition and the previous one is that both focus on the achievement of the enterprise goals and objectives, except that Chandler’s definition defined “the how” which is the utilization of the resources. Corporate strategy can be viewed as the vehicle of translating organization’s corporate goals and objectives (Morris and Jamieson, 2004). Mintzberg *et al* (1998) argued that strategy can not have just one definition due to its complex nature in terms of its usage; instead he defined it using the concept of five P’s:

Strategy is a plan, namely a direction, a guide or course of action into the future.

Strategy is a pattern that is consistent in behaviour over time.

Strategy is a position of the particular products and services in particular markets.

Strategy is a perspective that is the organization’s fundamental way of doing things.

Strategy is a ploy that is a specific “maneuver” intended to outwit an opponent or competitor. Table 3-1, below, lists some previous definitions of strategy.

Table 3-1: Previous Definitions of Strategy.

Author	Definition of Strategy
Ansoff (1965: 120)	“the selection of product mix and markets... oriented toward the achievement of... a match between the firm and the environment”
Andrews (1971: 28)	“the pattern of major objectives, purposes, or goals and essential policies and plans for achieving those goals”
Hofer & Schendel (1978: 25)	“the fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organization will achieve its objectives”
Quinn (1980b: 9)	“strategy may be looked at as either priori statements to guide actions or posterior results of actual decision behavior”
Pearce (1982: 6)	“management’s large-scale, future oriented plans for interacting with the competitive environment to optimize achievement of organization objectives

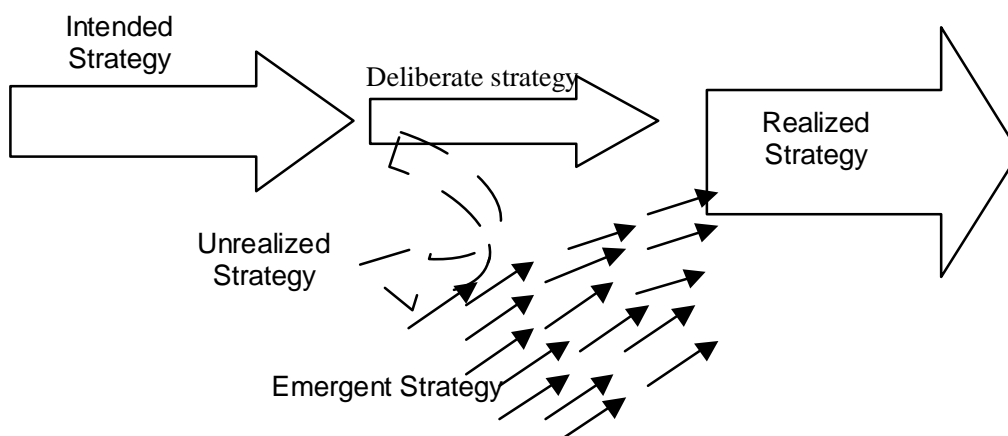
So, it is obvious from the above definitions that strategy means different things for different people and there is a lack of consensus on its meaning (Whittington, 2001). For example, the Economist (1993: 106) observed that *‘the consultants and theorists jostling to advise businesses can not even agree on the most basic of all questions: what, precisely, is a corporate strategy’*. But strategy can be viewed as a process that deals with translating the vision and mission of the company into actions by managing the relationship between the firm’s internal resources and its external environment. According to Davis (1986), strategy is concerned with matching organization resources with its opportunities and avoiding the threats from the external environment. For any firm, strategy is the underlying rationale that supports or influences the organization’s strategic choices (Bausman, 2002; Stahl and Grigsby, 1992; Macmillan *et al*, 2000; Markides, 2000). It has been posited that the strategic

choices that a firm needs to make lie in the consideration of the following three questions (Markides, 2000):

- Decide **who** will be its targeted customers, **what** products or services it will offer them, and **how** it will achieve all this in an efficient way

Once the three choices are selected by answering the questions, the organization needs to make decisions to help the achievement of its choices; and these decisions will help it to establish its long and short-term goals, the policies and programs to support those goals, and the allocation of resources (Bausman, 2002). The strategic choices, if made correctly and coupled with their close monitoring and control during the implementation phase, will result in high performance and survival of the organization and they will have a great deal of influence on other lower-level decisions throughout the firm (Thompson and Strickland, 2001; Stahl and Grigsby, 1992).

Also, it is asserted that a strategy needs to contain two parts: (1) the deliberate and (2) the emergent. The deliberate strategy is the one that is intended and realized by the organization; however, the emergent strategies are those that are unintentional, they emerge during the implementation of the intended strategies. Mintzberg (1978), the management guru, developed an important model that identified (see figure 3-1 below) the relationship between an organization's intended strategy and its realized strategy.



(Figure 3-1: The Relationship between Deliberate and Emergent Strategies, source: Mintzberg et al, 1985)

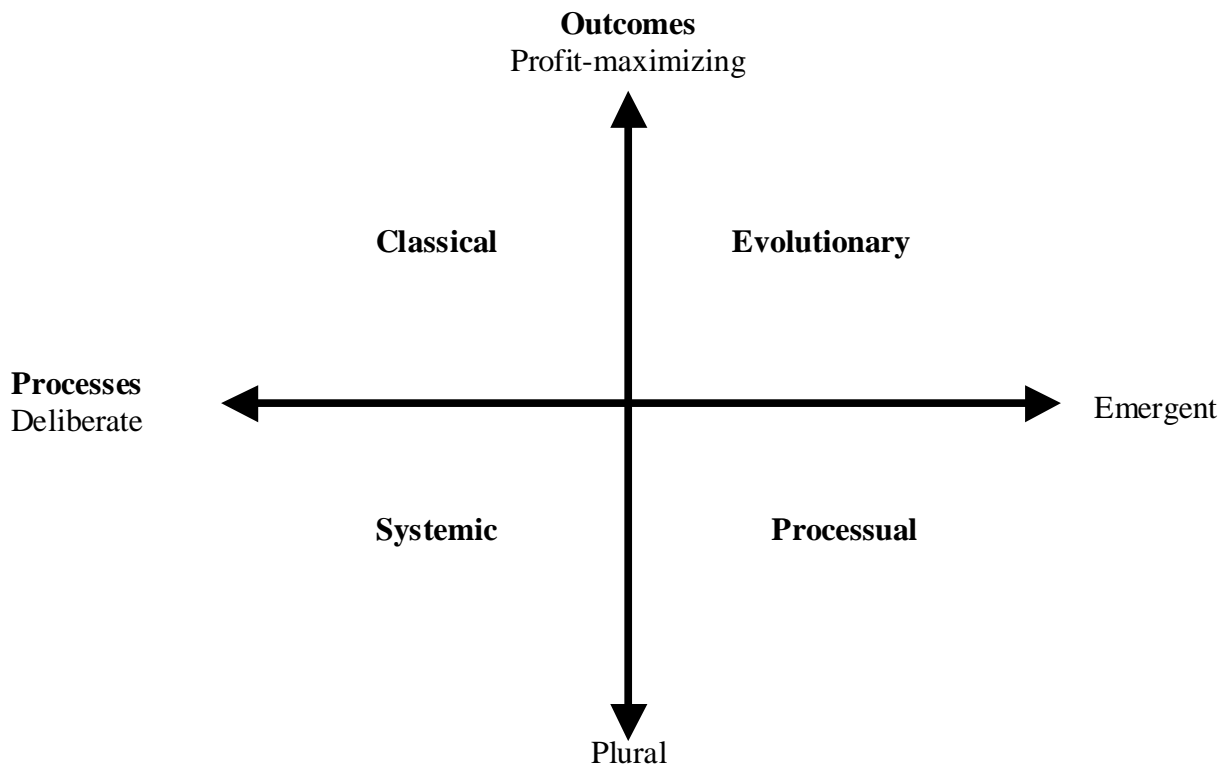
The above model placed the concept of strategies into the reality perspective, especially with current fast changes organizations are facing in the business. The

emergent strategy concept is based on organizational learning and works to identify strategy as the cumulative result of operational decisions (Arto and Dietrich, 2004). The emergent and deliberate concepts of strategy as explained by Mintzberg (1987: 69): *'in practice, of course, all strategy making walks on two feet, one deliberate, the other emergent. For just as purely deliberate strategy making precludes learning, so purely emergent strategy making precludes control. Pushed to the limit, neither approach makes much sense. There is no such thing as a purely deliberate strategy or a purely emergent one. No organization- not even the ones commanded by those ancient Greek generals- knows enough to work everything out in advance, to ignore learning en route'*.

Strategies' formation should be based on flexibility and experimental applications to move from broader concepts to specific commitments, and the strategic decisions should be made at the last possible moment, to allow for the maximum input from the environment and account for it (Quinn, 1985). The approach of Quinn will need to the process of planning with time limits to make the decision from analysis to selecting the right strategy otherwise, if the planning take long time, opportunities might be lost. The need for time limits in the planning process was addressed by the study of Mintzberg and Waters (1985), but they looked at it from the concept of 'umbrella strategy', in which to managers define boundaries and guidelines for the organization to operate, and within these boundaries employees in the organization can take new initiatives. So, the study of Mintzberg and Waters implies that through the induced strategic behaviour of the middle managers, strategic formulation could be affected. Burgelman (1983) argued that strategic behaviour alone will not be enough without autonomous behaviour for the individuals in the organization to participate in strategy formulation process, which referred to as 'bottom-up' approach to strategy formulation (Floyd and Wooldridge, 2000).

Authors such as Thompson and Strickland, 2001; and Fredrickson, 1984 identified two models for strategy development: the synoptic or planning model, which deals with strategy formation in a formal, rational and proactive approach; and the incremental or adaptive model that pictures the process of strategy formation as a reactive and serial progression to strategic issues facing an organization (Bausman, 2002; Quinn, 1980a).

Whittington (2001) considered strategy in the context of four different approaches depending on the process by which it is made and the outcomes that emerge from it. The figure below shows the four approaches.



(Figure 3-2: Strategy Dimensions, *Source*: Whittington, 2001)

The classical approach is concerned with profitability and has it as an optimum goal of business, and sees that rational planning is the mean to achieve it. Classical strategy was first laid out by Alfred Sloan (1963:49): *“the strategic aim of a business is to earn a return on capital, and if in any particular case the return in the long run is not satisfactory, the deficiency should be corrected or the activity abandoned”*

However, the evolutionary strategists do not believe in planning, instead they expect markets to exert pressure to secure profit maximization. A top manager’s focus in an organization with an evolutionary strategy is lowering the cost of its operation and keeping an eye on the opportunities in the market.

For an organization with the processual approach, strategy is similar to the evolutionary approach indicated above (about rational strategy-making), but it is less confident about markets ensuring profit-maximizing outcomes. Processualists advise

is *'not to strive after the unattainable ideal of rational fluid action, but to accept and work with the world as it is'* (Whittington, 2001: 21).

The last approach to organizational strategy is the systemic, which maintains faith in the capacity of organizations to plan forward and to act effectively within their environments. An organization with systemic approach differs from an organization with a classical approach in insisting that the rationale underlying strategy is strongly related to particular social contexts.

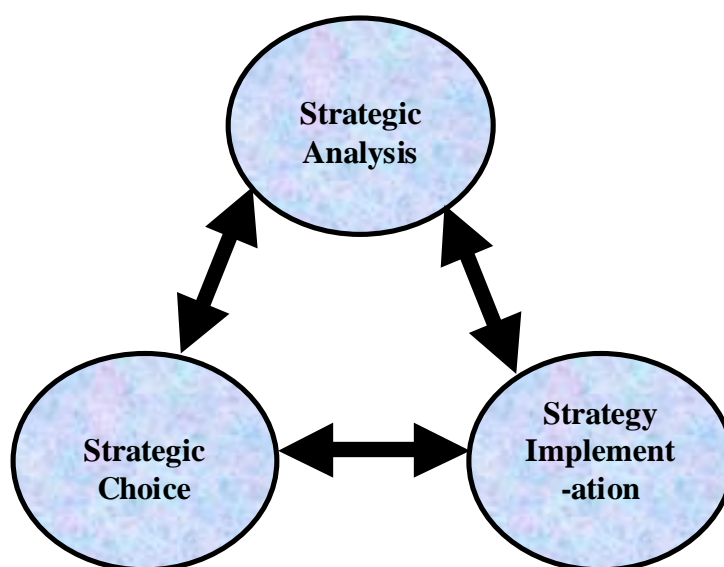
3.3 Strategic Management

The term strategic management was defined as 'the method by which a firm clarifies its mission, pursues its goals, marshals its resources, gauges its competitive environment, and evaluates its performance in the attainment of objectives' Shaw (2000: 4). The terms strategic planning and management are used interchangeably. Strategic management is the term of choice in today's business environment as the effective strategic plans or policies must now be measured with some precision on a continuing basis (Jauch and Glueck, 1988). So, it is for the purpose of this thesis; the term strategic management will encompass strategic planning, as strategic management will deal with formulating and implementing the strategy and strategic planning will focus only on the formulation of the strategy.

Any organization regardless of its industrial context must strive to achieve optimum value for its stakeholders. According to Porter (1980) an organization must recognize the needs of its environment and create competitive advantages for its customers. The competitive advantages can be categorized into one of three main categories (Porter, 1985): 1). Cost advantage: means selling at lower cost. This depends on the firm's ability to reduce its operation or distribution costs; 2). Differentiation: the uniqueness of its products and services (i.e. competing for quality); and 3). Combination of both strategies.

To better position itself and achieve competitive advantage, the organization needs to analyze both the external and internal environments; and makes a strategic choice depending on its distinctive competencies (Andrews, 1991). Johnson and Scholes (1989) argued that the process of strategic management can be viewed as a framework with three main elements, namely: a). Strategic analysis, b). Strategic choice and c). Strategy implementation. The strategic analysis element means that the strategist will seek to understand the strategic position of the organization by understanding the

threats and the opportunities as external factors and the strengths and weaknesses as internal factors. The strategic choice element is actually making the choice for the possible courses of actions like choosing a 'cost advantage' as competitive strategy. Finally, the strategist will implement the chosen courses of action. This thesis has as its focus the link between the strategic analysis element and strategic choice with the strategic implementation. Figure 3-3 presents the framework of strategic management as set out in Johnson and Scholes, (1989).



(Figure 3-3: Strategic Management Process, source: Johnson and Scholes, 1989)

The diagram in Figure 3-3 shows that the three steps in the strategy implementation are interrelated and do not act in an independent, which dictates that during the process of strategic formulation all the three steps to be considered at all the times. According to Van Der Merwe (2002: 403), the process of strategic management is 'about moving the organization from its present position to a future strategic position, in order to exploit new products and markets. The strategic analysis process investigates the current and future positions. The strategic objective setting process is about planning the trip, its duration and effort. The strategic implementation process is about getting the organization to move'. The Van Der Merwe's definition of strategic management is a complete one, because it explains all the three elements of strategic management and their roles in achieving the company's goals and objectives. Shaw (2000) identified two models for the strategic management; classical and system models. The **classical model** contained six steps, as follows:

Step 1: the specific statements of the firm's missions and goals

Step 2: elaboration of the goals specified to meet the company's mission,

Step 3: an evaluation of the competitive environment of the firm,

Step 4: an audit of the firm's internal resources (available capital, technology, and labor),

Step 5: identification of action steps, or tactics, intended to facilitate the company's goals.

Step 6: implementation of the tactics to reach the firm's goals.

On the other hand the **systems model** contained ten steps as follows:

Step 1: define mission and objectives,

Step 2: evaluate the economic environment,

Step 3: perform competitive analysis,

Step 4: perform internal audit,

Step 5: identify strategic choices,

Step 6: elaborate policies, plans, and administrative apparatus in support of strategy,

Step 7: implement strategic plan,

Step 8: evaluate strategic effectiveness,

Step 9: monitor competitive environment,

Step 10: reformulate strategic plans in response to market changes.

The two models differ in that the system model is more comprehensive and takes care of both the deliberate and the emergent strategies. Also, the system model carefully places emphasis on the internal resources and systems to support the strategic implementation.

Price (2003) reviewed the strategic management process in nine construction organizations. The main finding from his research was that there was no right way to develop and implement strategy exists in the literature. But there were key elements that were common between the organizations studied; and those elements were included into a conceptual model for strategic planning shown in Figure (4-3), the model is based on three phases, namely: (1) strategic review, (2) data collection and analysis, (3) strategic planning, and (4) implement strategies.

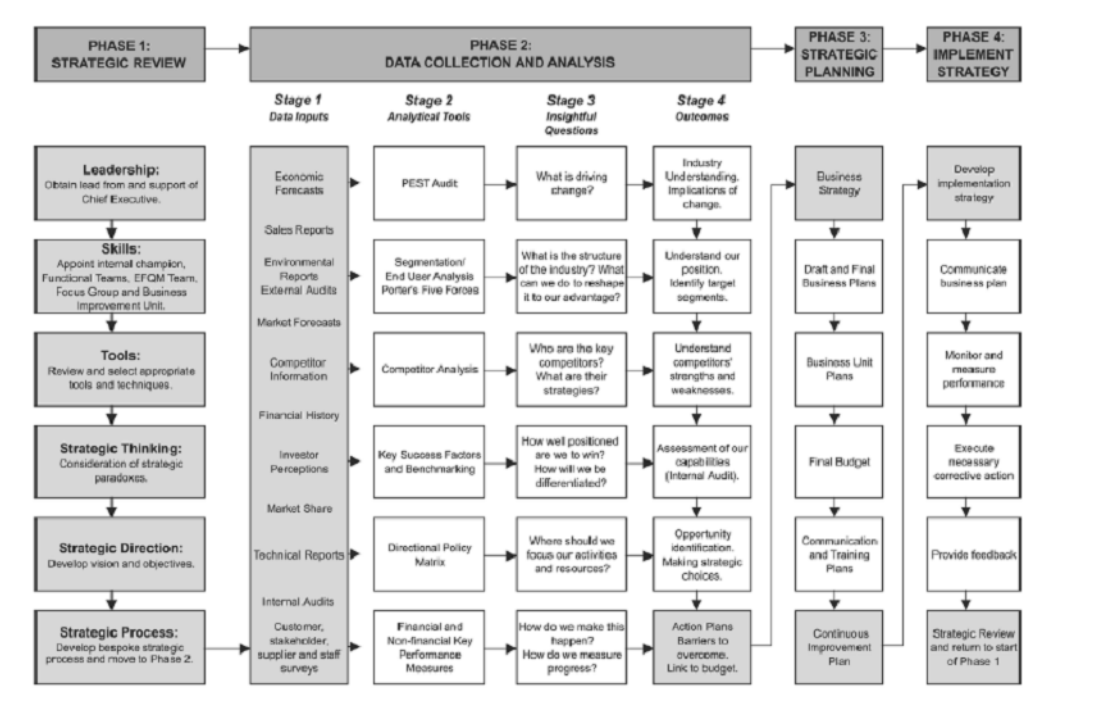


Figure 3-4: Conceptual process framework for the strategic management process, (Source: Price, A., 2003)

However, both the system and the classical models, and the framework for strategic management did not emphasize on the implementation and only focused on how to analyze, evaluate and develop strategies, but less focus was given to implementing strategies. This findings was confirmed by authors such as Jamieson and Morris (2004: 178), when they wrote that *'much of traditional management writing tends to cover the strategic management process that formulate and implement strategy at the corporate level; there is a real dearth of writing about how corporate strategy gets translated into comprehensive program or project management strategies'*. This gap in the literature will be addressed by this research, through the development and implementation of an enterprise project management model that links strategic formulation process with implementation process using project management tools and techniques. Hart (1992) viewed strategic management from the point of view of the organizational capabilities, and he linked the success of the organizational strategies with the competencies of its human resources. And this places high importance on knowledge management for successful strategic management, which will be covered in chapter five. Arto and Dietrich (2004) identified four challenges of successful strategic management, namely: reconciling unlimited opportunities with manager's limited capabilities; implementing top-down strategies while allowing bottom-up

strategies to emerge; creating predictable environments while maintaining innovativeness; and controlling actions while simultaneously allowing the organization to learn new ideas to keep itself competitive. The next section will discuss strategic planning process.

3.3.1 Processes of Strategic Planning

In the previous section it was indicated that strategic management revolved around three key elements namely: the external and internal environment, the organization, and leadership. These elements are highly interdependent and inseparable (Byars, 1984 in Bausman, 2002). Thus, strategic planning requires a balance between management intuition and judgment, organizational values, structure and resources' capabilities, and analytical processes (Whittington, 2001). Also, it was shown strategic planning deals with only analyzing the external and internal environments; and making the necessary strategic choice. But, it does not guarantee its implementation. Andrew, 1971, defined a strategic planning process as making the balance between the external appraisal of the environmental threats and opportunities facing the firm with an internal appraisal of the organization's strengths and weaknesses. Mintzberg (1994) developed a model for strategic planning as shown in Figure 3-5, next page. The main characteristic of the conceptual/theoretical model shown is the assessment of the firm's distinctive competencies and its external environment. Also, it aligns the results of the assessment with the organization's managerial and social responsibilities before evaluating options and deciding on the most appropriate strategic choice. The Mintzberg's strategic planning model, however, ignores the plan implementation and organizational learning during the planning period.

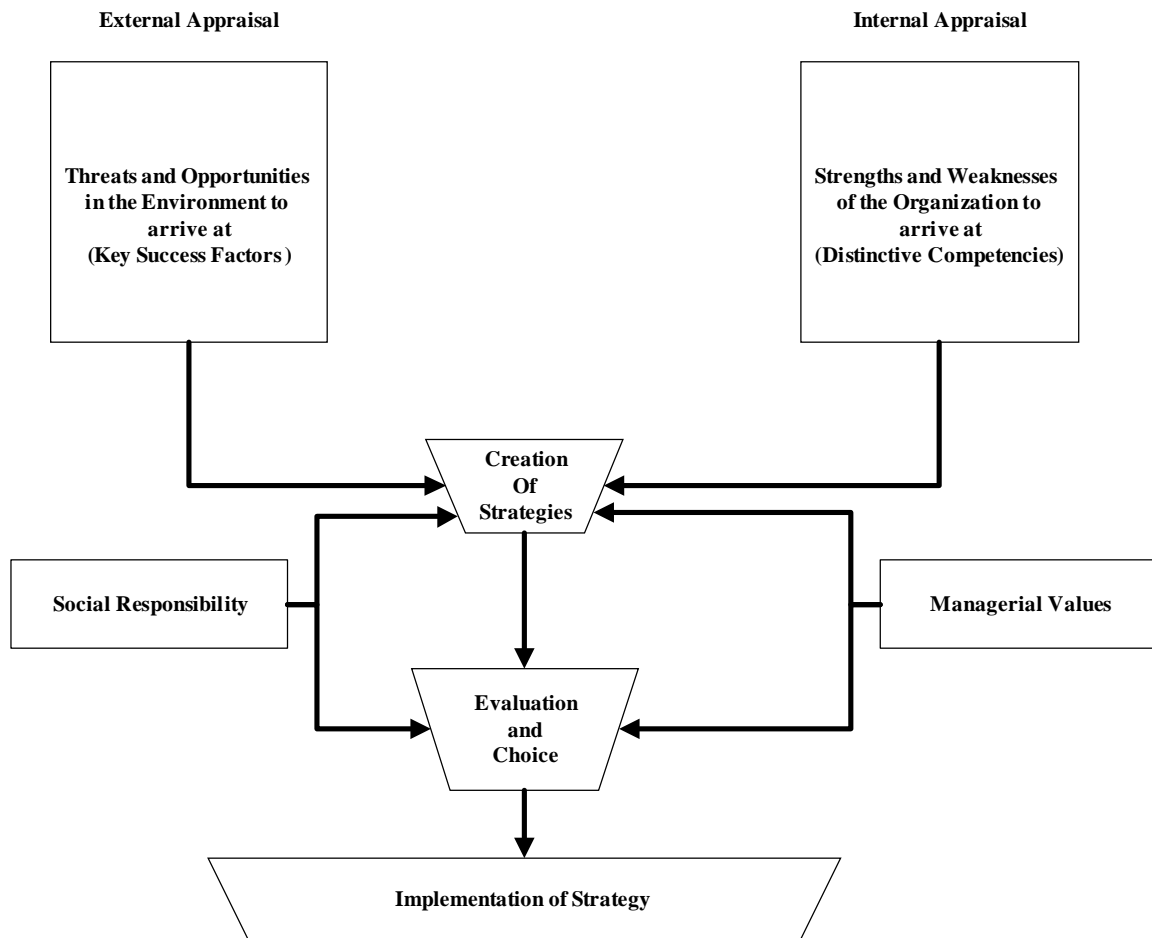


Figure 3-5: Core “Design Model” of Strategy Formulation , source: Mintzberg, 1994:37

Ansoff (1965) also, developed a model that contained similar elements as Mintzberg’s model, shown in Figure 3-5, but he placed emphasis on the iterative nature of planning involving routine procedures and numerous steps and decisions. Both Mintzberg and Ansoff’s models were criticized by focusing on the development of strategic plans while ignoring the implementation (Mintzberg, 1994; Bausman, 2002; Al-Balushi *et al*, 2005).

Steiner, 1979, developed another planning model, shown in Figure 3-6, on page 39, which included not only management’s goals and objectives but extended it to consider all major stakeholders’ expectations. Such stakeholders include the society, suppliers, customers, government agencies, and employees. Also, Steiner’s model placed more attention on the implementation plans of organization long-term strategic plans by linking the strategic plans with its medium and short-range plans. The short

range plans are developed to support the implementation of the firm's strategic objectives. Although, the model placed a link between strategic plans and their implementation but not with great detail or emphasis and it can be seen that there is no control and monitoring mechanism to ensure successful implementation. Steiner's model placed more focus on the short and medium range plans and links them with implementation, but again without showing how this link is going to happen in practice. Also, Steiner's model depicts that the planning process and the firm chosen strategy must be supported by tactical decisions and actions at all levels in the organization. Steiner's view on strategic planning process was 'planning is so intimately intertwined with the whole process of management and entire organizational structure of a business that for each organization planning is tailored to particular circumstances' Steiner (1979: 108). So planning activities must be closely linked with the organization norms and structure to bridge the gap between the planning and implementation. And, the strategic plan has to be bought by all stakeholders in the organization and strongly connected to the values of its employees.

From the theoretical models of strategic planning, it is clear that within an organization setting strategic planning can be said to an iterative process that involves three main elements: objectives and goals of the firm, environmental scanning, and implementation, evaluation and control. And these will be discussed in the following sections.

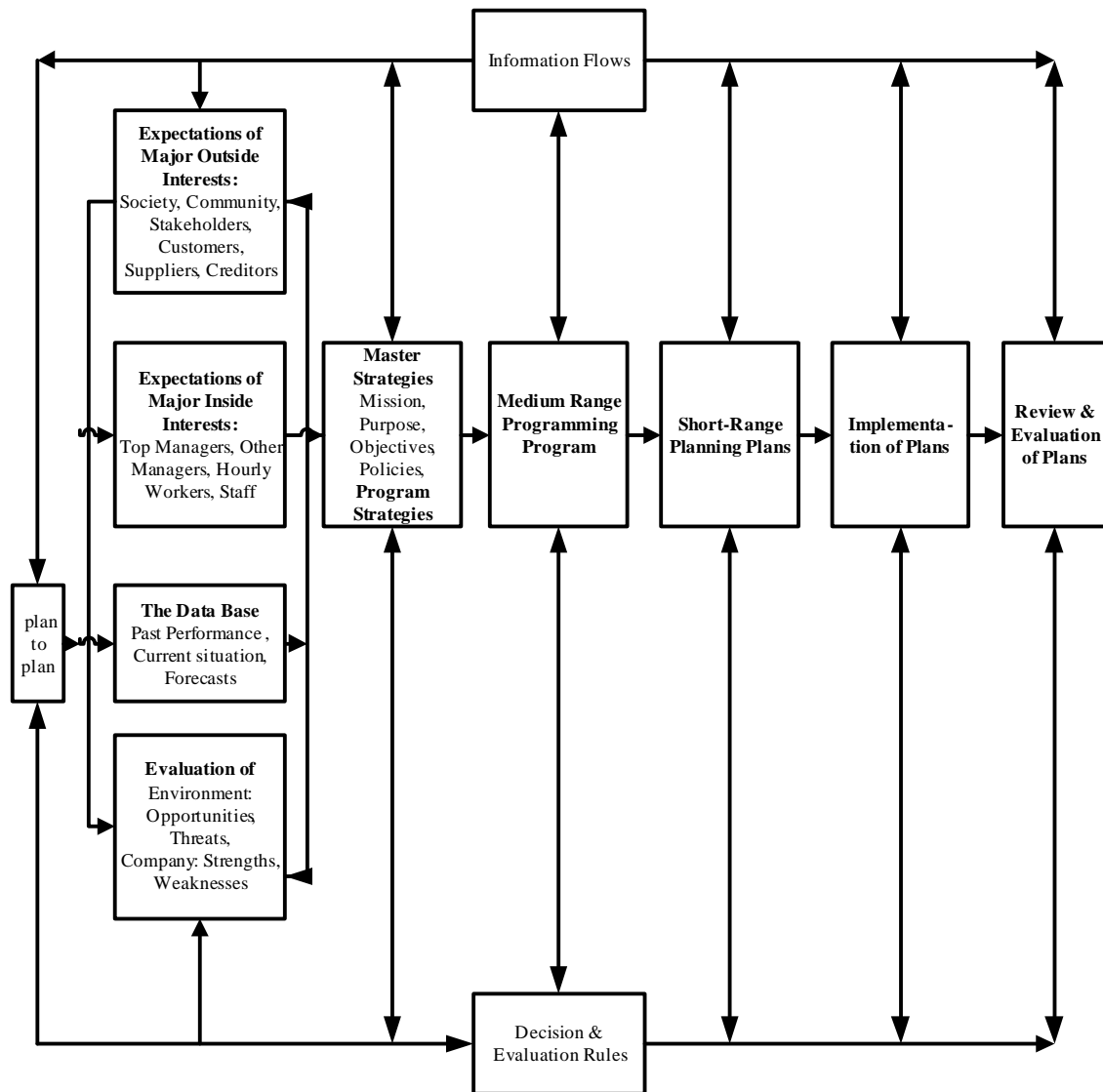


Figure 3-6: Structure and Process of Business Companywide Planning , Source: Steiner, 1979:17

3.3.2 Strategic Planning Objectives

The planning objectives of an organization include the firm's vision, mission, and long-term objectives. Objectives are sometimes referred to as 'planning ends' Bausman (2002). Ackoff (1981) described three types of 'ends' a firm seeks to establish with its strategic planning- a) goals, b) objectives and c) ideals. He defined goals as outcomes that the organization expects to achieve in the current planning cycle. Objectives are those 'ends' that the organization expects to make progress toward, but remain on the horizon. Lastly, ideals are 'ends' that might be unreachable, but the company should progress toward them. In simple terms, goals and objectives

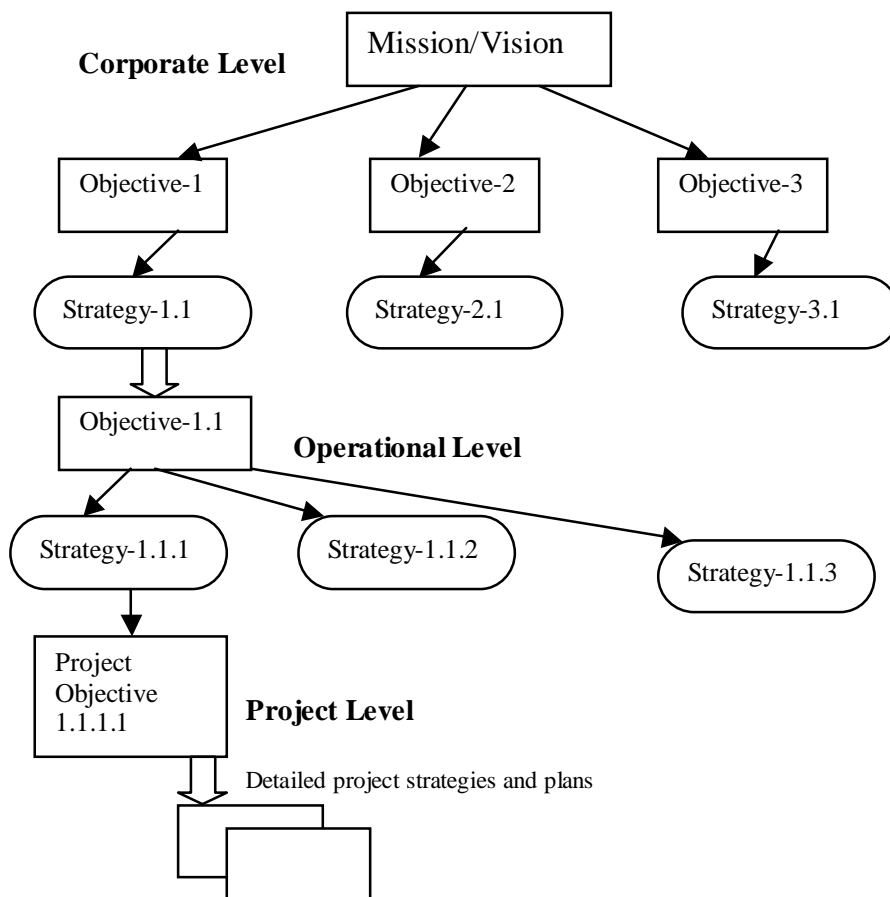
represent the short and medium-terms 'ends' of an organization planning process and ideals are the long-term 'ends' or the vision of the organization.

The vision is defined as being the desired state of the organization would like to attain in the distant future (Hinterhuber and Wolfgang, 1992). Also, Sandy (1990: 7) defined vision as 'seeing the possibilities- not just where you are, but where you want to be'. The vision should not be a wish list of impossible objectives, but it should inspire and unite employees towards achieving it. Hamel and Prahalad (1994) argued that an effective vision should be grounded into environmental trends such as technology, demographics, and evolving customer desires and expectations. Also, they advised that management should not only view the future through the lenses of the existing market and environmental conditions, but should see it beyond such constraints and try to innovate.

The organization vision and mission statements are the definitions of its purpose and values. The vision statement provides the desired direction for the organization and acts as a compass that guides it through its journey (Hinterhuber *et al.* 1992). The mission statement, however, establishes an organizational philosophy by identifying its values, beliefs, and guidelines to develop a framework to support the business activities and the achievement of the vision (Byars, 1984). A mission statement defines the purpose and identifies the scope of an organization's operations (Pearce, 1982). It, also, serves as a focal point for the organization's major planning decisions and stimulates creative ideas (Byars and Neil, 1987; Below *et al.*, 1987). According to Druker, 1989, a clearly defined mission will stimulate innovative ideas and help others to understand why they need to be implemented- however they fly in the face of tradition.

The strategic objectives of a plan are the translation of the organization's mission and vision into operational programs and projects (referred to as tactics) (Al-Balushi *et al.*, 2005; Thompson and Strickland, 2001). Archibald (2003) developed a model, Figure 3-7, next page, that maps the structure and relationship of objectives and strategies at corporate, operational, and project levels (Morris and Jamieson, 2004). This conceptual model is an initial attempt to explain how strategies are translated from corporate level into project level, but it does not point out the complexity of the processes that govern such translation nor the tools needed to effectively implement the programs and projects like. Such tools may include value management, resource management, and stakeholder analysis. Therefore, objectives concentrate and direct

the effort of the organization's resources to reach the future desired state or 'end'. It is suspected that the operational programs and projects should be linked to performance targets to ensure successful implementation, and hence measure the business performance.



(Figure 3-7: Hierarchy of Objectives, Strategies, and Projects, Source: Morris and Jamieson, 2004)

The importance of the above theoretical model (Figure 3-7) lies in its clarity in showing the links between an organization's mission and vision, and how it gets translated into objectives, and for each objectives a strategy is defined. And this process is repeated at each level, the corporate level, the operational level, and the project level. But as mentioned earlier it lacks the practical steps of cascading down the objectives.

3.3.3 Environmental Scanning

Before embarking on a certain strategic choice, it is believed that the management of an organization needs to assess its internal strengths and weaknesses in relation to its perceived opportunities and threats in its external-operating environment (Johnson and Scholes, 1989). This process is referred to as ‘SWOT’ analysis technique; Strengths, Weaknesses, Opportunities, and Threats (Pearce and Robinson, 1985). Johnson and Scholes (1989) explained environmental assessment as consisting of three main elements: (1) Understanding of the effects of the environment on the business, (2) Understanding the expectations and objectives of the different stakeholders, (3) Forming a view of the internal organizational strengths and weaknesses. The understanding of the effects of the external environment will require the firm to position its resources to take advantage of, or create, new opportunities while at the same time guard against existing or developing threats to their success and survival (Bausman, 2002). The assessment of the firm’s external environment requires an evaluation of factors such as the economy, technological changes, regulatory expectations, social and demographic trends, and the firm’s competitive position. Threats are defined as being any unfavorable situation or impediment to the firm’s current or future desired state (Pearce *et al*, 1985). However, Drucker, 1964, identified three types of opportunities: (1) those that are additive and more fully exploit and organization’s existing strengths, (2) those that compliment the present business focus and (3) those that change the fundamental characteristics and capacities of the business, or breakthroughs.

Grundy, 2001, presented three- step approach to stakeholder analysis: (1) identify who you believe the key stakeholders are, (2) evaluate the impact and influence on the issue in question, and (3) identify what is their view on the issue in question (i.e. supportive, against, or neutral). The last step in the environmental assessment process is understanding the internal strengths and weaknesses of the firm. Strength is a resource or skill that provides the firm with competitive advantage over its competitors; however, weakness is a limitation or deficiency which impedes effective performance (Pearce *et al*, 1985). Porter (1980) argued that competitive strategy involves positioning a business to maximize the value of its capabilities so that it can distinguish itself from its competitors. Organizations need to view their strengths and

weaknesses from an independent lens that shows the real picture without bias, as managers tend to view their environment in a similar fashion (Faulkner *et al*, 1995).

The concept of Scenario planning was first developed and applied by the Royal Dutch Shell Company on the early 70s to anticipate and respond effectively to the fluctuation of oil prices- and resulted in Shell becoming the world's major oil company (Ringland, 1998). It was defined as “a systematic way to develop and test plans and strategies, especially in uncertain times, by creating possible futures to test them (Australian Bureau of Rural Sciences, 2004). While the conventional SWOT technique identifies uncertainties in the planning exercise, scenario planning might reduce the uncertainties by examining as many scenarios as required (Al-Balushi et al, 2005). Therefore, the use of SWOT and Scenario planning techniques is suggested in this study to counteract the weaknesses in SWOT, which is the analysis of the external and internal situation of the company but does not allow testing of the strategies.

3.3.4 Strategic Implementation

Once strategic analysis is completed and certain strategic choice is chosen, the third step will be strategic implementation. To enable effective strategic implementation, the strategy must match the organizational structure and operating model (Andrews, 1971). The structure of the organization, policies, processes, and culture must be in line and supportive of the strategic intent. The firm's strategic plan must be incorporated into its programs, resources deployments, and budgetary framework (Bausman, 2002); and it must be built in its operating philosophy through its tactical strategy and functional activities (Langford and Male, 1991).

Two researches conducted by Reid (1989) and Chinowsky (2000), revealed that the strategic planning process stops at the planning stage and it does not get to implementation. For example Reid (1989) concluded from his longitudinal study of the service and manufacturing industries through the use of structured interviews and focus groups that ‘the planning process often failed to facilitate any meaningful change or guiding direction for the firm. The benefits of strategic planning were often nullified unless implementation process can be totally integrated with the organizational way of life. Two factors are important to be linked to the execution process, according to Reid (1989: 566), these are continuity and inseparability.

Chinowsky (2000), study of the US engineering and construction firms, found that most firms had a strategic plan, but few translated it into strategic operational programs and projects (tactics) at functional level.

According to Pearce *et al* (1985: 71) strategy must 'be institutionalized- permeate the very day-to-day life of the company if it is to be effectively implemented'. Johnson and Scholes (1989) referred to strategic implementation process, as the last phase in strategic management, and he described that it consists of: investigating the need to adapt the systems used to manage the organization, investigation of the necessary changes to organizational structure to implement the chosen strategy, and resource planning for the implementation.

The involvement of all levels of the organization during the implementation stage of strategies was pointed out by many authors as the most effective mechanism to translate strategies into actions (Lupton, 1971; Nonaka, 1988; Bell, 1994). Therefore, it extremely important to develop communication plans to ensure that strategic plans are passed down through the hierarchy of the organization. Bill (1994) identified three levels of strategies, namely: (1). Corporate levels: it is the top level and concerned with types of business in which the company should be involved in; (2). Competitive or business level: it is the second level and concerned with how a business within the corporate can compete to a particular market (like the subsidiary companies' strategies); and (3). Operational level: concerned with how each function operates to achieve the overall business strategy.

The literature reviewed above in relation to strategic planning and management has clearly presented the planning process of strategies as being more focus in the formulation rather than the implementation of the organizational strategies. No evidence was found on how to translate corporate strategies into operational strategies. This gap in what is known about implementing strategic plans is one of the core objectives of this thesis.

3.4 Summary

The concept of strategy has been in use since the 4th century B.C. as it was originated in the military to mean the command of the general. For business, it means different things for different people depending on the context it is used in. Strategic management has three main elements: Strategic Analysis, Strategic Choice, and Strategy Implementation. The literature review revealed there are many strategic planning models that exist that deal with strategic analysis and strategic choice, but there were found to be very little mentioned addressing the process by which the strategic choice could be implemented. This is the gap in the previously published literature that will be addressed in this thesis. The next chapter will review the literature on project management and the use of project management at an enterprise level to derive potential mechanisms for the implementation of strategies.

Chapter Four: Enterprise Project Management

4.1 Introduction

Project management has been recognized as a planning and control tool for successful implementation of tasks and activities since the 1930s. Conventionally it has been utilized to deliver capital projects in the construction and engineering industries often such projects have been delivered in isolation of other projects within the same organization. At the beginning of 21st century new direction has been given for the use of project management methodology as a means of achieving strategic goals (Kerzner 2001, Dinsmore, 1999, PMI-OPM3, 2003). The theory behind using project management methodology as a strategic implementation tool was that organizations became to realize that any investment decisions, at strategic level, are in one way or another projects by themselves, which need to follow standard processes in order to properly secure the return on their investment. No matter how sound the investment decision is, if the projects supporting it are poorly executed and/or without proper control, then the investment will result in a failure situation? This chapter will focus on a review of the literature related to traditional project management and the chapter goes on to compare it with the principles of enterprise project management. Also, the chapter covers the processes and tools necessary to apply enterprise project management in an organization. The last part of the chapter will discuss performance management and measurement frameworks required for successful implementation of enterprise project management processes.

4.2 Traditional Project Management

4.2.1 History of Project Management

Project management, in its modern form, began to take root only a few decades ago. Starting in the early 1930s, businesses and other organizations began to see the benefit of organizing work around projects and to understand the critical need to

communicate and integrate work across multiple departments and professions. It had progressed further along its development continuum but only in the westernized countries like United Kingdom and the United States only and not other countries. However, all these developments were exclusively used in construction industry around the globe. The developments were summarized based on the time that they were first developed in Table 4-1, below (Rory Burke, 2003: 16):

Table 4-1: Summary of Project Management History

Year	Event
1955	The development of PERT
1956	The development of Gantt Charts
1963	The development of Earned Value and Project Life-Cycle Techniques
1964	The development of configuration management
1969	The formation of the PMI
1992	The formation of the APM
1996	Released the first draft of the PMI Body of Knowledge

The tools and techniques for coordinating project teams' efforts evolved over the years. Henry Laurence Gantt, in the second decade of the 20th century, developed what is known today as Gantt charts. Gantt charts were used to visually display scheduled and actual progress in parts of large projects ranging from large dams (like Hoover Dam, built from 1931 to 1935) to the interstate highway network (started in 1956).

The invention of the Critical Path network programming, as a major technique used in scheduling, by the Du Pont and Remington Rand Univac, happened in 1957, to coordinate complex plant maintenance.

The invention of the second scheduling technique took place in 1955, which is known today as the Program Evaluation and Review Technique (PERT) by Booz-Allen Hamilton worked with the US Navy on the Polaris Missile system development.

In 1963, Earned Value and Project Life-Cycle was developed and adopted by USAF.

In 1964, Configuration Management was first adopted by NASA as a set of administrative procedures to identify and document the functional and physical characteristics of a system and particularly to control.

The year 1965, saw a dramatic rise in the number of construction projects that used modern project management.

The year 1969 was the year of forming Project Management Institute (PMI) the first formal institute for project managers.

In 1992, the Association for Project Management released its first Body of Knowledge (APMBOK). The APMBOK is: “a practical document, defining the broad range of knowledge that the discipline of project management encompasses”, APMBOK, 2000.

In 1996, Project Management Institute (PMI) released its official standard document, The Project Management Body of Knowledge (PMBOK). The benefit of this standard was to the spread and standardization of project management practices could be inferred from the sheer numbers of copies in circulation. Since mid-1996, nearly a quarter-million PMBOK guides have been purchased, downloaded from the PMI website, or distributed to PMI members, and that number increases by over 10,000 each month, PMI’s Website, 2003.

The above summary of the history of project management revealed that its tools and techniques have been adopted by all types of industries as business leaders sought new management strategies and tools to handle their growth in a quickly changing and competitive world. In the early 1960s, general system theories of science began to be applied to business interactions. Johnson *et al* (1963) described how a modern business is like a human organism, with a skeletal system, a muscular system, circulatory system, nervous system, and so on. This view of business as a human organism implies that in order for a business to survive and prosper, all of its

functional parts must work together in concert toward specific goals, or projects. In the following decades, this approach toward project management began to take root in its modern forms. While various business models evolved during this period, they all shared a common underlying structure (especially for larger businesses) namely: that the project is managed by a project manager, who puts together a team and ensures the integration and communication of the workflow horizontally across different functional units and departments in the organization.

4.2.2 What is a Project?

A project can be defined as: *‘any temporary endeavor undertaken to create a unique product or services. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all other products and services’* (PMIBoK, 2000: 4). The new version of the PMIBoK (2004: 7) placed more emphasis on the link between projects with organizational strategies and redefined projects as *‘a means of achieving an organization’s strategic plan’*; but there was no clear indication or formal process mentioned on how to link the strategic plan and project implementation. The implication is that the strategic plan would be given to the project team.

Also, the British Standard of Project Management (BS6079: 2) defined project as: *‘a unique process consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost, and resources’*. Turner (1993) defined it in terms of resources utilized in the project like: human, or machine, material and financial resources, which are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to deliver beneficial change defined by quantitative and qualitative objectives. The Central Computer and Telecommunications agency (CCTA, 1998), defined a project in terms of a management environment that is created for the purpose of delivering one or more business products according to a specified business case. The last two definitions are detailed about defining the end objectives through the mention of requirements and the project constraints. However, still these definitions did not

include the link between project and the strategies of the organization for successful implementation.

Burke (2003) has defined distinctive features of a project, and these were as follows: a start and finish, a lifecycle, a budget, activities that are essentially unique and non-repetitive, use of resources, single point of responsibility, fast tracking, and team roles. Organizations utilize projects in a variety of ways, ranging from chaotic to systematic; and this place a great importance on the processes and tools used to manage projects to deliver the required results. Thus, the project management process is the enabler of the business strategy (Harrington *et al*, 1997 and Morris and Jamieson 2004). Because it provides a formal structured way to achieve the optimum goals and eliminate the chances of slippage from such goals.

4.2.3 What is Project Management?

The term project management can be defined as follows:

- The Association of Project Management (2000: 6), defined project management as: *'the most efficient way of introducing unique change'*
- The Project Management Institute (2000: 6) defined it as: *'the application of knowledge, skills, tools and techniques to project activities in order to meet stakeholders' needs and expectations from a project'*
- The British Standard on Project Management (BS6079) identified five elements for effective project management, namely: planning, organizing, motivating, implementing and control by review and accountability.
- Morris (1994) differs in his definition of project management, in that he emphasized more on the need to integrate everything that needs to be done as the project evolves through its life cycle in order to meet the project's objectives.

So, project management can be viewed as the vehicle to optimize the use of the resources to achieve the intended purpose of the project. The tools and techniques defined under the project management discipline are the parts of such vehicle.

Example of such tools are the nine knowledge areas presented in the PMI Body of Knowledge, such as: project integration management, project scope management, project time management, project cost management, project quality management, project human resources management, project communication management, project risk management, and project procurement management.

4.2.4 Project Management Process

A process can be viewed as the link between an input and an output. And processes are great success factors for organizations as every successful firm requires a ‘formal blueprint, roadmap, template or thought process for driving a new product from the idea stage to launch and further (Cooper, 1994). The term process is defined in many different ways as in Table 4-2, next page:

Table 4-2: definitions of a process

Author	Definition
Davenport (1993: 121)	“A process is simply a structured, measured set of activities designed to produce a specified output for a particular customer or market and that they are the structure by which an organization follows that is necessary to produce value for its customers”.
Oakland (1995)	Defined in terms of inputs and outputs, an the process is a method of transformation, which can include actions, methods and operations, that satisfy customer needs and expectations, in the form of products, information, services or-generally results”
Zairi (1997: 64)	“A process is an approach for converting inputs into outputs. It is the way in which all the resources of an organization are used in a reliable, repeatable and consistent way to achieve its goals”

A certain process is composed of levels of granularity as (Lee, 2002): Level 1: Process, Level 2: Sub process, Level 3: Sub Process, Level 4: Procedure, activity and task. This composition will provide the user of the process the details required to execute it. For example, a process can be characterized by the following (Koskela, 1992; Cooper, 1994; Li Qing *et al*, 2002):

- It converts inputs into outputs by creating a change of state and taking inputs through a sequence of stages during which the inputs are transformed or their status changed to emerge as an output with different characteristics,
- It clarifies the interfaces between the different functional boundaries within an organizations' hierarchies,
- It helps to increase visibility and understanding of the work to be done,
- It defines the business/project activities across functional boundaries,
- It is a time and logic sequence of a series of activities to operate one task.

And a procedure was defined as (Lee, 2002: 21):

- Is a sequence of steps, it includes the preparation, conduct and completion of a task,
- Is required when the task we have to perform is complex or is routine in nature,
- Defines the rules that should be followed by an individual or group to carry out a specific task,
- Supports the high-level main process.

Project management processes are defined in terms of functions and activities, (Zulu and Brown, 2003). The British Standard (BS, 2000) presents the project management as cyclic model that consists of three activities: Plan, measure and control. The model starts with planning activities then measuring and controlling. The cyclic nature of the model is because of the less information available about the project during the planning stage. The use of common processes within an organization provides the tool to measure performance in executing projects against preset targets and enhances continuous improvement. Processes streamline and control the workflows. Kerzner (2001) argued that organization realizes that common methodologies and processes are required such that managerial successes on one project can be repeated on other

projects. One of the levels any maturity models to measure organizations capabilities in project management is common processes, which require the organization to maintain structured processes for executing projects.

The Project Management Institute (PMI, 2000) divided the project processes into five groups of processes: initiating processes, planning processes, executing processes, controlling processes and closing processes. The (ISO10006) divides project management processes into ten sub- processes, as follows: strategic Processes, interdependent processes, scope related processes, time related processes, cost related processes, resource related processes, personnel related processes, communication processes, risk management processes, purchasing related processes.

The difference between the PMI and (ISO10006) approaches is that the earlier distinguishes between the project lifecycle processes and the knowledge areas, unlike the latter, which define processes in the context of knowledge areas. However, (Walker, 2002) places project management processes in two systems: the operating system, where the project is achieved, and the management system, where the decision making processes are taking place to support the operating system. It is clear that project management is a process oriented tool to execute projects.

Since process is a time and logic sequence of activities, resources are utilized, cost is added, time passes, and the desired product will be produced. So, organizations' resources and information can be connected through processes to produce products, create values and benefits to stakeholders. Therefore, project and process are integrated with each other; the existence of one depends on the other.

In a survey conducted on seven organizations, Morris (2005) confirmed that practitioners expect project management processes to be used in all phases of a project starting from its concept to its completion. Evidence suggests that such an approach is more needed in the concept phase as that is where there are the highest chances of project success or failure, because in the concept phase the project is defined and number of alternatives are analysed and the optimum alternative based on value criteria is selected to be an input for the 'Go/No Go Decision'. So the involvement of the project management process in this phase will add value to the success of the organization.

Morris (2005), conducted two separate questionnaire surveys: one dealt with asking respondents about new topics to be included in the new Body of Knowledge of the Association for Project Management (APMBoK, 2005); the second was developed to examine the processes, practices and people issues involved in moving from corporate strategy to project strategy. Those two surveys confirmed the need for linking the project and program management with the enterprise strategies through front-end operations.

Bell, 1994, developed a model for managing projects that encompasses this initial stage. The model was based on five stages as follows:

1. **Pre-concept:** the problem brought to the attention of the project owner, production of a cohesive understanding of the project goals, scope budget and reporting structure,
2. **Concept:** the problem is analysed and alternative solutions are defined, and the best one is chosen based on value criteria,
3. **Feasibility:** decision to go ahead with the project has been made, and specific options for various design and capacity requirements are analysed to arrive at the return on investment calculation,
4. **Design and Construct:** after design criteria have been set, the design and construction will progress during this stage,
5. **Post Occupancy:** this is stage is concerned with the evaluation of the project after it has been in use for some time.

This complete view of project management to cover the overall lifecycle of the project has made a shift in the use of project management from being used to deal with managing individual projects to managing portfolio and programs as part of overall strategic objectives of organizations. The shift has been derived by the need to link the project performance with overall business objectives through portfolio and program management, and project strategy as the majority of projects take place as part of a portfolio of several projects under the umbrella of multiple programs (Morris *et al* 2004, Turner and Simister 2000, and Anderson and Merna, 2003)). Hence, the need for enterprise project management has risen, which is the subject of the next section.

4.2.5 The Use of project processes in various industries

The project process is considered as the enabler of the business strategy (Morris and Jamieson, 2004). Because it provides a formal structured way to achieve the optimum goals and eliminate the chances of slippage from such goals. The project and process are integrated with each other; the existence of one depends on the other. Therefore, industries such as manufacturing and construction have adopted process approaches to their project or product management cycles. Unlike manufacturing and construction industries, the telecommunication industry operates in a structure which has a complex supply-chain, with the following layers (Feng Li *et al*, 2002):

1. Equipment layer,
2. Network (infrastructure) layer,
3. Middle (software, content providers, financiers, resellers) layers
4. Customer layer,

The complexity of the supply chain and time pressures due to shorter technology lifecycle (Harker, 1996) demand effective product development processes, which integrate customer requirements as inputs to strategies and the successful implementation of the portfolio of projects. Therefore, organizational project management process can play a great role, because it integrates the strategic planning process with the projects' implementation cycle. Bryde (1995) defines the following criteria for project management processes in the telecommunication industry:

- The required project must meet specified business case,
- The project management team must involve operational members for smooth hand-over,
- All the elements of the project must be adequately defined,
- Clear scope change management process is defined that involves the consideration of the implications of the changes,
- Clear criteria must be defined for performance measurement during execution and handing-over.

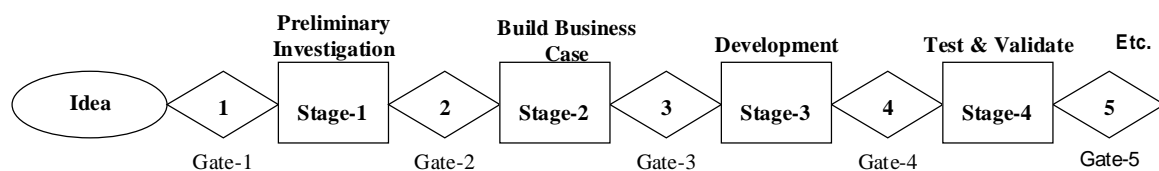
It is strongly believed that the telecommunications industry with its challenges, project processes will enhance its efficiencies.

Manufacturing

The manufacturing industry is process based; because in general terms, any manufacturing system can be viewed as: set of processes that consist of tasks and activities put together to transfer raw materials and semi-finished products to a set of finished products.

Therefore, the manufacturing industry and specially the New Product Development (NPD) sector use a “process view” by relating the idea generation, and identification of the clients’ requirements to the final commercialization of the product.

NASA developed a phase-review process, which is known as phased project planning process. The phase-review process or stage-gate offers a number of benefits when executed by cross-functional teams, such as: reducing risk, easing the task setting goals towards completing each phase, and improves focus on a particular phase. A process known as stage-gate process is an example of a phase-review process, and it is illustrated in the figure next phase, (Cooper, 1990):



(Figure 4-1: Stage-gate process, Source: Cooper, 1990)

Construction

As compared to the manufacturing industry, the construction industry is different in that it involves many parties working together to deliver the end product (the building or the required facility) also the construction industry uses ad-hoc methods for achieving the process of New product Development (NPD) and, hence, reducing repeatability of process execution, which means increasing the possibilities of repeating the same mistakes time after time. This issue was called upon as a major driver for change in the latest UK Government investigations of the industry performance (Latham, 1994 and Egan 1998). Both these reports concluded that an effective process throughout the construction lifecycle is required. Latham report (1994) stressed on a need for effective processes throughout the construction life

cycle starting from the management of the client brief to the selection of the supply chain participants and eventual construction/on-site processes. Also, Egan (1998) indicated that integrated processes are one of the five key drivers of change:

1. Committed leadership,
2. Focus on the customer,
3. Integrated processes and teams,
4. Quality driven agenda,
5. Commitment to people.

As a reaction of the above two reports, the Engineering and Physical Science Research Council (EPSRC) funded a research project, under the Innovative Manufacturing Initiative (IMI). Started on 1995, the project was aimed to develop the Generic Design and Construction Process Protocol (GDCPP). The protocol is essentially a common manual of definitions, documentation and procedures that provides the basis to allow a wide range of organizations involved in a construction project to work together seamlessly (Kagioglou *et al*, 1998b). The Process Protocol uses the manufacturing New Product Development Processes as the basis and maps the entire project process from client's recognition of a new or emerging need, through to operations and maintenance, Cooper *et al* (1998). To allow for continuous improvements in the process, the company and industry knowledge is provided through common database Aouad *et al* (1999). The design and construction process is mapped by breaking it down into eight sub-processes, called activity zones, namely, (Aouad *et al*, 1999):

1. Development,
2. Project,
3. Resource,
4. Design,
5. Production,
6. Facilities,
7. Health & Safety and Legal,
8. Process Management

And four stages, as in: Pre-Project (relates to the strategic business considerations of any project which aims to address client's needs), Pre-Construction (defines how the client's needs are developed and integrated into and appropriate design solution),

Construction (deals with the production of the project solution) and Post-Construction (focuses on the continuous monitoring and managing of the maintenance needs of the constructed facility), Aouad *et al* (2000).

As depicted by (Kagioglou *et al*, 1998a), some of the potential advantages of adopting the Process Protocol were:

- It takes a whole project view from inception all the way to operation and maintenance,
- It recognizes the interdependency of activities throughout the duration of projects,
- It focuses on the “front-end” activities that deal with identifying, defining and evaluating clients’ requirements,
- It provides the potential to establish consistency to reduce ambiguity, and it provides the adoption of a standard approach to performance measurement, evaluation and control to facilitate continuous improvement in construction,
- The stage-gate/phase-review process approach used allows concurrency and progressive fixity and/or approval of information throughout the process. “Hard Gates” illustrate the need for completing all necessary phase activities before proceeding to the next phase; “Soft Gates” allow concurrency without jeopardizing the overall project success,
- It enables co-ordination of the participants and activities in construction projects and identifies the responsible parties,
- It encourages the establishment of multi-functional teams including stakeholders, and this establishes a team environment and enhances timely and appropriate communication and decision making,
- It facilitates a legacy archive whereby all project information is collectively stored for future learning.

But the above processes were focused on the project lifecycle only, but they did not go beyond, like for example to the corporate strategy level. And this is the core aim of this research study.

4.3 Enterprise Project Management

The concept of the management of businesses by projects was during June 1990 in an expert seminar in the World IPMA Congress in Vienna. The contribution of project management to the general world of management was discussed as a major theme of the congress. Since then, there have been many studies on the subject, examples are: Turner (1993), Pellegrinelli and Bowman (1994), Grundy (1998), Dinsmore (1999), Artto *et al* (2002), Morris and Jamieson (2004), Hauc and Kovac (2000) and Kerzner (1992).

The demand for enterprise project management has been forecasted to increase (Gartner Research, 2000). A recent top 500 project management benchmarking forum sponsored by the Executive Initiative Institute and the centre for Business Practice (CBP) in the US (Bigelow, 2002: 20) revealed that the biggest project management priorities among Fortune 500 companies are: 'project office, portfolio management, risk management, and financial return'. All of these elements are part of the enterprise project management methodology.

4.3.1 Definitions

The terms enterprise project management and organizational project management are found to be used interchangeably, and their meaning are the same. For example, the Project Management Institute defined organizational project management as: '*the application of knowledge, skills, tools, and techniques to organizational and project activities to achieve the aims of an organization through projects, programs and portfolios*' (PMI-OPM3, 2003: 13). On the other hand, enterprise project management was defined as an organization-wide managerial philosophy based on the principle that company goals are achievable through a web of simultaneous projects, which calls for a systemic approach and includes corporate strategy projects, operational improvement, and organizational transformation, as well as traditional development projects (Dinsmore, 1999). Also, Enterprise Project Management could be defined in terms of the business processes, methods, standards and tools an organization puts in place to manage their business by projects (Casanova, 2003). Therefore, enterprise (or organizational) project management is simply the utilization of project management

tools and techniques to manage the overall company's activities. It is different than the traditional project management in many aspects as shown in Table 4-3 below (Dinsmore, 1999).

Table 4-3: differences between Traditional PM and Organizational PM

Project Management Area	Traditional Project Management	Organizational Project Management
Overall context	Project-oriented, specific scope, start-to-finish	Organization-oriented, company view, ongoing
Management Processes	Project methodologies coordinated within corporate processes	Continuum of overlapping life cycles integrated with corporate processes
Integration	Ad hoc interface management with other areas	Overall interface management built into organization
Scope	Project interface management, work breakdown structure	Organization interface management
Time	Project schedule, dates, finite time span	Program schedules, multiple projects, continuing time frame
Cost	Project estimates, budgets, actuals	Corporate and program estimates, budgets, actuals
Quality	Specific project quality assurance and control	Overall quality compliance
Communications	Project-based communications	Company-wide, inter-project communications

Human resources	Resources for projects at hand	Project-experienced personnel for entire organization
Supply, Contracts	Project-based contracts and suppliers	Company policy for integrated suppliers
Risk	Specific project risk	Overall risk for company programs
Links to business Strategy	Vague and distant	Direct and explicit
Project definition	Usually portrayed as a “given”	Highly flexible, creative, and depending on options.

The differences between Project Management and Enterprise Project Management can be summarized as follows, Casanova (2003):

Project Management is:

- The direction and management of a project,
- A discipline
- Project Wide
- A tactical issue

Enterprise Project Management is:

- The integration, prioritization, communication, and continuous control of multiple projects,
- An operating environment,
- Enterprise wide
- A strategic issue

The Enterprise Project Management links strategies of the company with the project execution and hence leads to on-time delivery, which leads to customer loyalty and repeat business.

According to Garies (2004: 124) enterprise project management company is a company that defines management by projects’ as an organization strategy, applies temporary organizations for the performance of business processes of medium and

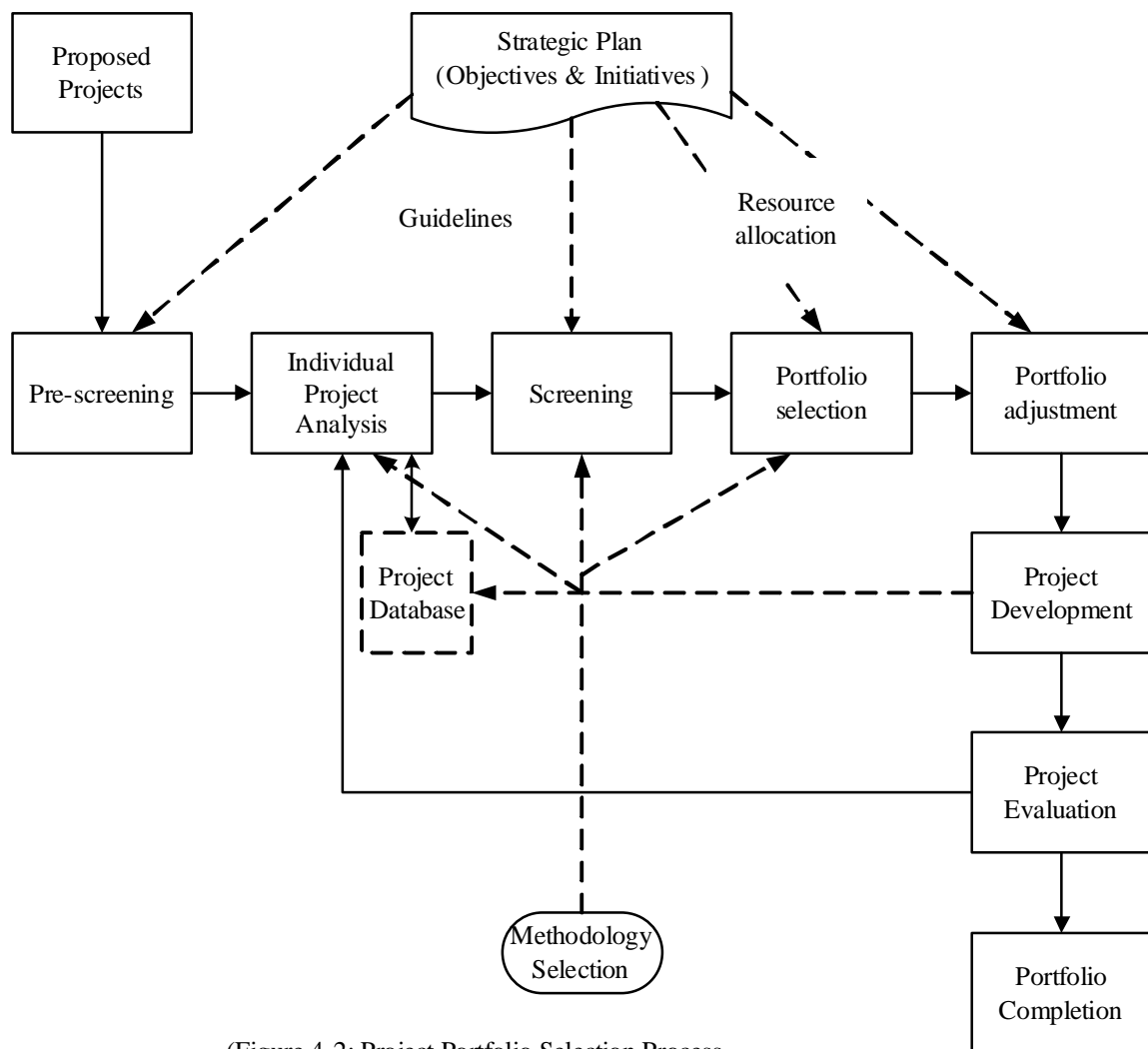
large scope, manages a project portfolio of different project types, has specific permanent organization unit such as a Project Management Office and a project portfolio group, applies a 'new management paradigm', and perceives itself as being 'project-oriented'. Therefore, an enterprise project management firm should centralize its project management activities under one unit 'PM Office' and implement projects in a matrix structure, utilizing experts from various functional departments but the responsibility lies under the project office to coordinate and integrate all the activities with the resources to achieve results. The responsibilities of the Project Management Office are as follows (Garies, 2004): development and maintenance of processes; methodologies, processes and procedures for project and program management; development and maintenance of standard project plans (standard Work Breakdown Structures, work packages, specifications, milestone lists, etc.); project management training, coaching, consulting, and auditing, and promotion of project management as a profession by establishing a career path; and project management certification program.

4.3.2 Program and Portfolio Management

Strategies and initiatives are translated to programs and projects. Murray-Webster and Thiry (2000) suggested that program management is a method of integrating the implementation of various projects. The UK Office of Government Commerce (OGC), 1999, considered the alignment of strategy and projects as the main benefits of program management. The Association of Project Management Body of Knowledge (APMBoK, 2000) defined program management as a '*collection of projects related to some extent to a common objective*'. Partington *et al* (2005) looked at program management as a corporate tool to achieve strategies. They defined program management as "the structure and processes that are used to co-ordinate and direct the multiple inter-related projects that together constitute an organization's strategy. For instance, if the business objective was to launch a certain product, then, the program to meet such an objective would contain the technical projects, the commercial projects and the marketing projects that all need to be coordinated and integrated so as to meet the overall program objective.

Coetzee, 2003, argued that a program has longer duration than a project, consists of a number of projects, and could be multi-disciplinary. The definition of CCTA, 1998, for program management was: ‘a portfolio of projects selected, planned and managed in a coordinated way and which together achieves a set of defined business objectives. Program management methods and techniques may also be applied to a set of otherwise unrelated projects bounded by a business cycle’.

Portfolio management is about choosing the right project in the portfolio (Morris and Jamieson, 2004). In portfolio management, the strategies and initiatives once translated into portfolio of programs and projects, they are screened based on criteria such as: strategic focus, feasibility studies, and the availability of resources. Archer and Ghasemzadeh, 1999, developed a process for the selection of project portfolio, as in Figure 4-2, shown below.



(Figure 4-2: Project Portfolio Selection Process ,
Source: Adapted from Archer & Ghasemzadeh, 1999)

Also, Coetzee, 2003, developed a process for portfolio management that integrate strategic management with portfolio selection through initiating and updating baselines to measure and control the implementation of projects. The process map is shown in the figure next page. In this process, the strategic management process and environmental analysis is done to establish which issues and objectives that require attention. The project portfolio team identifies initiatives that could become projects and distribute them to program and project managers. The strategic planning team conducts a conceptual baseline for each initiative with ‘enough’ information so that the project portfolio team conducts impact analysis and measures the concept baselines against the set objectives and initiatives. The result of the impact analysis is documented in a report with recommendations on which projects or initiatives to pursue and presented to top management for approval. Once the top management approves the recommendations, the new selected projects are passed to the project management teams to prepare subsequent baselines with details on: definition, design development, construction or manufacturing or operational. Then, the subsequent baselines are presented to top management for final approval to go ahead with implementation. Finally, as the project or program progresses, it is continuously measured against the approved baseline.

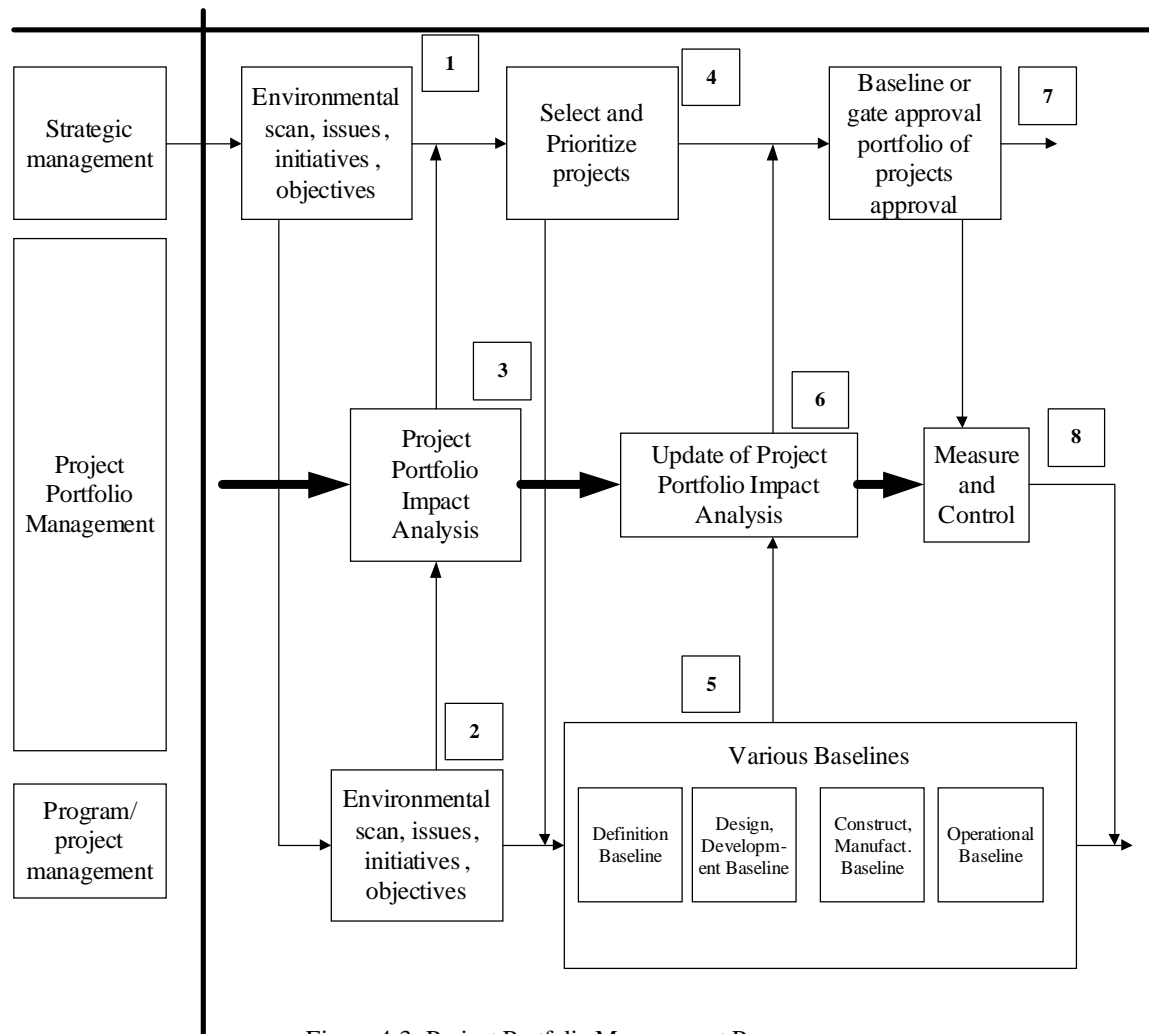


Figure 4-3: Project Portfolio Management Process ,
Source: Coetzee, 2003

The above two processes lack the detailed procedures on how to translate strategies into projects, such procedures are required to identify the structures for the teams responsible for strategic planning and those responsible for the implementation of the programs and projects. White and Patton, 2000, identified five mission links on processes that translate strategic plans into implementations, as follows: implementation process is not focused on portfolio of strategic projects, no organizational focal point exists for all strategic projects, no cross-organizational group is responsible for decisions on projects consistent with strategic guidelines (like: priorities, conflict resolution, resource allocation), no project management standard, guidelines, and project communication plan exists, and no standard performance metrics exist.

4.3.3 Translating Corporate Strategies into Programs and Projects

Programs are the highest level after strategic initiatives, which contain portfolio of projects to achieve a common objective. The process of translating strategies into initiatives, and further to programs and projects is shown in the figure, next page (Al-Balushi et al, 2004). As discussed earlier in the previous chapter, the strategic planning process starts by identifying the vision, the mission and the core values, which describe why the organization exist and what are its objectives to achieve? Then strategic goals are identified to meet the mission, vision and core values. This will be examined with reference to the current situation of the organization by identifying the Strength, Weaknesses, which are internal forces, and Opportunities and Threats, which are external forces. The next step is the analysis of the gap between the existing situations and where the organization is heading to achieve its strategic goals. Finally, the strategic goals are translated into different projects that compose the various programs and portfolios. In basic terms, organizations are portfolios of projects. The project management processes provide the tool to achieve strategies by acting as "...formal blueprint, roadmap, template or thought processes for deriving a new product from the idea stage to market launch and beyond" (Cooper, 1994).

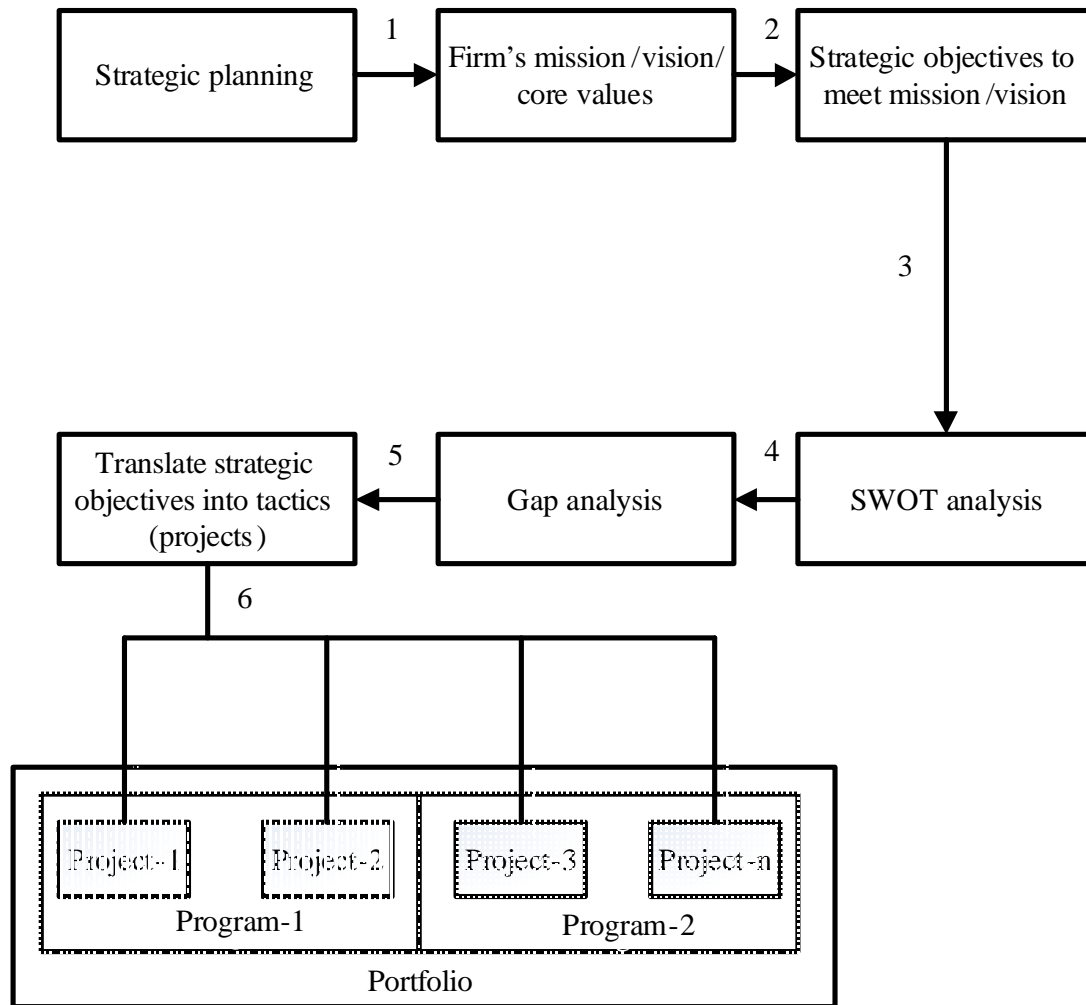


Figure 4-4: Translation of Strategies and Initiatives into Programs and Projects, Source: Al-Balushi *et al*, 2004.

Morris and Jamieson (2004) conducted research that examined the processes and practices by which corporate strategies were translated into portfolio, program and project levels. The research revealed that organizations translated strategies into programs and projects but in different means and processes depending on the level of maturity of the organization in project management. The figure below shows the link between business strategy and project strategy with emphasis on the strategic alignment of project strategy with the business strategy. Figure 4-5 shows the different levels business strategies pass through until it is finally executed. This model still requires a great deal of detail in terms of mapping relevant processes and responsibilities before it can be considered as being of use.

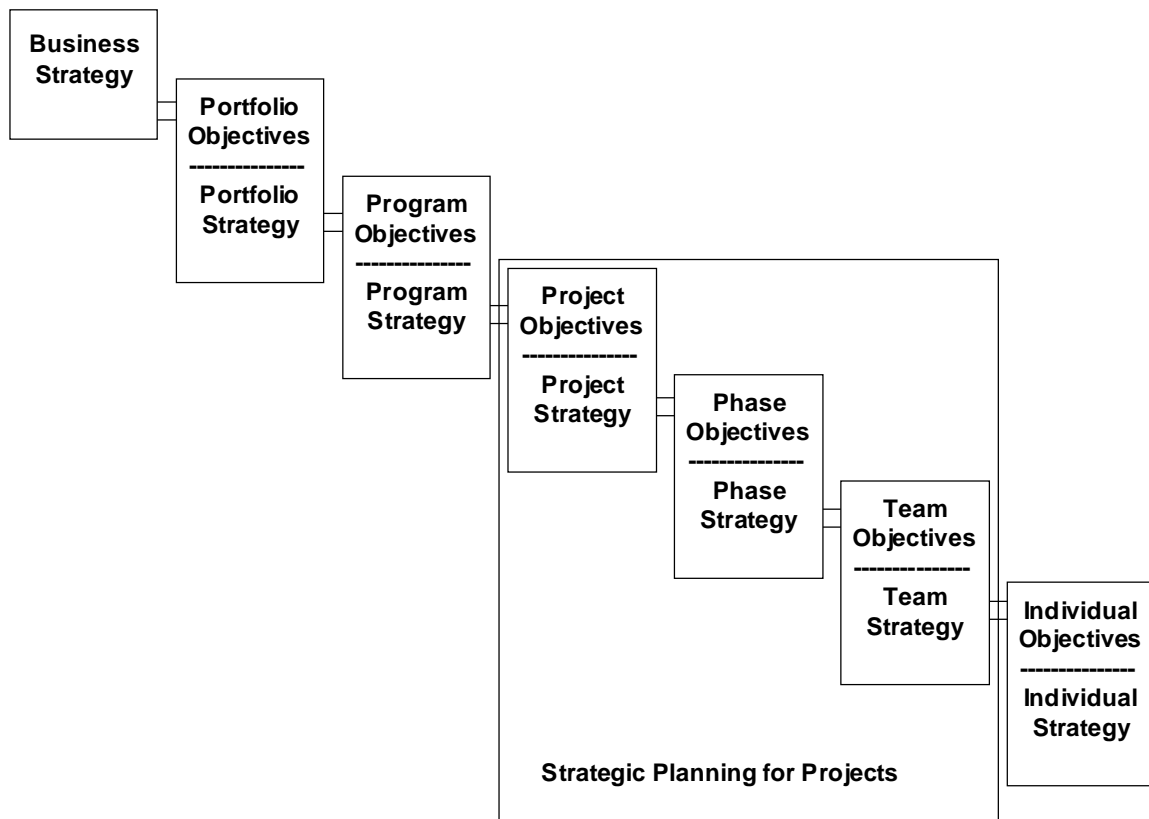


Figure 4-5: Linking Business Strategy with Project Strategy , source: Morris and Jamieson , 2004

4.3.4 The Application of Enterprise Project Management

In enterprise project management, organizational activities are viewed as a network of internal and external projects (Lim and Yeo, 1995); they argued that seven elements of the organization require transformation for successful implementation of enterprise project management, and these elements are shown in Table 4-4, next page:

(Table 4-4: Organizational elements required transformation when applying enterprise project management, *Source: Lim and Yeo, 1995*)

Organizational Elements	Traditional Project Management	Enterprise Project Management
1. Project Strategy	Unrelated single projects Fragmented approach	Network of interrelated projects Total/holistic approach
2. Structure	Hierarchical and rigid	Flat and Flexible
3. Systems	Piece-meal	Integrated
4. Staff	Function-oriented	Project team oriented
5. Skills	Function based specialists skills Narrow learning	Broad skills Multi-learning
6. Management style	Top-down leadership	Top-down and bottom up leadership
7. Shared values	Generally weak/reactive	Strong/ proactive

Usually, managing projects is accomplished by processes that primarily involve making decisions, taking actions, checking for feedback, and creating an environment that supports the integration of the actual work activities of different people, as well as integrating the results of those efforts.

Enterprise Project Management (EPM) is process-centered management tool. Peter van den Borne *et al*, 2003, identifies three distinct process groups, described in the Table 4-5, next page:

1. EPM Governance Processes,
2. EPM Execution Processes,
3. EPM Support Processes.

Table 4- 5: Enterprise Project Management Governing Processes

Process	Description
EPM Governance Processes	
Portfolio Management	Portfolio Management is used to ensure that the correct mix of investment activity is initiated & managed to deliver the enterprise's strategies. It includes: portfolio planning and portfolio analysis.
Enterprise Resource Management	Enterprise Resource Management is about managing resources across the organization, to optimize their usage. Resource selection should be based on: availability and skills (technical & human). The process gives future resource demand forecast.
Enterprise Project Control	Enterprise project control is the process by which project performance baseline is developed, measured and reported across the organization. Such baselines are for time, cost and quality.
EPM Execution Processes	
Program Management	These processes are used to manage a program of projects. It includes managing the interrelationships between individual projects and managing the overall business objectives of the entire program.
Project Management	Project Management processes have been developed and detailed in standards such as: Project Management Institute (PMI), Association of Project Management (APM).
Project Lifecycle	These processes are concerned with managing a project's content. The definition of the lifecycle phases depend on the

Processes	application area of the project like: construction, IT, Telecommunication, Pharmaceutical etc.
EPM Support Processes	
Project Learning	Project learning processes are concerned with building lessons learned databases, developing templates and checklists and networking between projects.
Project Quality & Support	A project support office often carries out these processes. These processes include supporting individual projects with planning, tracking and administration, but also supporting the organization with methodology development, tool deployment, project auditing, training development.
Professional Development	These processes concerned with building and maintaining the required competencies of the project management staff in the organization. This may include: planning competences requirements, designing and executing training curriculum and developing effective mentoring and coaching system.

Moreover, for an organization to facilitate a smooth and effective transition to a full-fledged Enterprise Project Management, the following activities need to be accomplished, Paul Dinsmore (1999):

- **Strategic Alignment:** it included review of mission and vision, stakeholder analysis, statement of enterprise project management policy, external influences, and positioning with respect to market competition,
- **Business performance Objectives:** revalidates company objectives, setting of performance standards and ways of measuring them, operational premises, internal agreements, and result analysis,

- **Cultural Change:** involves redefining of company's values, and comparing the organizational climate now with the desired future climate (like from functional vertical into matrix horizontal authority, also changing the "I" to the "We" culture),
- **Communication:** enhancing more communication company-wide through encompassing effective communication strategies, and enhancing open channels,
- **People:** means team-building, training and development strategies, allocation and reallocation of people, evaluation of project management competency, development of new competencies, and competency based pay,
- **Management Requirements:** includes systems, roles and responsibilities, reporting relationships, processes, and organization design,
- **Technology Requirements:** the Enterprise Project Management processes require sets of information (like Project related, resource related, portfolio related, task related, and organization related) and these information is created and/or used by various stakeholders in the organization (project managers, resource managers, team members, PMO staff and executives) in order to be effective, so the technical system required to support the EPM process must fulfill the following requirements (Peter van den Borne, 2003): usability, including web-based functionality, centralized and open database, multi-user, multi project capability, customizable fields, security functions, template capability, multi-function reporting, and alert/notification capability,
- **Strong executive management support:** to sustain the change effect and it can be obtained by demonstrating the added value EPM would bring to the organization.

Thus, it is evident that for organizations to implement an effective Enterprise Project Management, there must be a balance between project-oriented versus functional structures, and this balance is obtained by adopting the differentiated matrix structure and the dual responsibility system. Also, the application of enterprise project management requires the organization to undergo certain changes. These changes can be categorized into two: organizational and technological. The organizational changes include items such as:

- The establishment of a project management office for the development and maintenance of project management methodology, processes and procedures to support the execution of projects and programs, and the development of a career path to support project managers; and
- The structure to be more matrix-based instead of the function-based.

The technological changes include setting up a project management information system, like Primavera or MS Project to enhance communication and easy transfer and store of information, and works as a planning and control tool.

4.3.5 Maturity Models

The Webster (1988: 17) defined the word 'mature' as 'being ripe or having reached the state of full natural or maximum development'. And maturity means the quality or the state of being mature. If we combine both words maturity and organization, it might refer to the state where the organization is in a perfect condition to achieve its objectives. Project management maturity, then, means that the organization is in a perfect condition to deal with executing and effectively managing projects (Andersen & Jessen, 2003). The perfect conditions for the organization reflect three main items, namely (Williamson, 1985): (1) the actions, (2) the attitudes, and (3) the knowledge of the organization. The actions refer to the ability of the organization to act and decide faster. It is basically the corporate decision-making, which contains four dimensions (Mintzberg, 1983): (1) action taken by at the strategic level (Chief Executive Level), (2) action taken at tactical level (line management, program and portfolio management levels), (3) action taken at administrative level (administrative support functions), and (4) action taken at operational level (project management and participants).

The attitude is the mental position of an individual or a group of people, which collectively define the attitude of the organization. The attitude is further broken down into four dimensions (Andersen & Jessen, 2003): (1) attitudes towards risk and insecurity, (2) attitudes towards power and responsibility sharing, (3) attitudes towards hard and soft values, (4) attitudes towards co-operation and teamwork. The last element in the maturity is knowledge of the organization, which is the knowledge

about suppositions, knowledge about ways of working (processes), and knowledge about totality. All of the above elements and their dimensions are related to the benefits a process would provide. Because, a well structured process would provide the stakeholders with the required information and the tools to make the required decisions at the right time. And this is what the EPMM is aiming to provide.

According to the PMI- Organization Project Management Maturity Model (OPM3, 2003); organizational project management is based on the principle that there is a correlation between an organization's capabilities in project management, program management and portfolio management, and its effectiveness in implementing strategies. Therefore, it is necessary to assess organization's capabilities, and the tools to do so are maturity models. Literature reviewed has revealed a number of models such as: (Kerzner, 2001; PMI-OPM3, 2003). An example of maturity models is the one developed by Kerzner (2001), which was comprised of five levels as follows:

- **Level 1 - Common language:** the company starts to recognize the importance and benefits of project management and the need for a good understanding of the basic knowledge on project management,
- **Level 2 - Common Processes:** the company recognizes that common processes need to be defined and developed such that success in one project can be repeated on other projects. Also, in this level, the organization recognizes the application and support of the project management methodologies to achieve strategic objectives,
- **Level 3 - Singular Methodology:** in this level, the organization recognizes the need to combine all corporate methodologies (processes) into one integrated methodology based on project management
- **Level 4 - Benchmarking:** in this level, the company recognizes the need to continuously improve the singular methodology (process) by benchmarking with others in the same industry,
- **Level 5 - Continuous improvement:** in this level, the company performed benchmarking successfully and as a result collected information, evaluated them, and decided to use them to enhance the singular methodology.

The Structured Process Improvement for Construction Enterprises (SPICE) based on Capability Maturity Model (CMM), (Paulk, 1993 and Saidian, 1995) is another example of maturity model, which was developed and used by the United States Department of Defense. The stages, in the SPICE model, are described as follows (Sarshar, 2000):

- **Initial:** no formal project management processes are in place,
- **Planned & Tracked:** in this stage, there exists in the organization project management systems and processes for planning, scheduling, tracking, and estimating, and such systems are perceived to be important,
- **Well defined:** there is a standardized methodology for implementing project management within the organization, and such methodology is integrated into the company systems and procedures,
- **Quantitatively controlled:** the integrated project management methodology is measured and controlled,
- **Continuously improving:** project teams use models to develop schedules and budgets; then all historical data are stored in databases to obtain lessons learned, reference data, estimating criteria, and lessons learned.

The figure below shows the measurement processes for CMM:

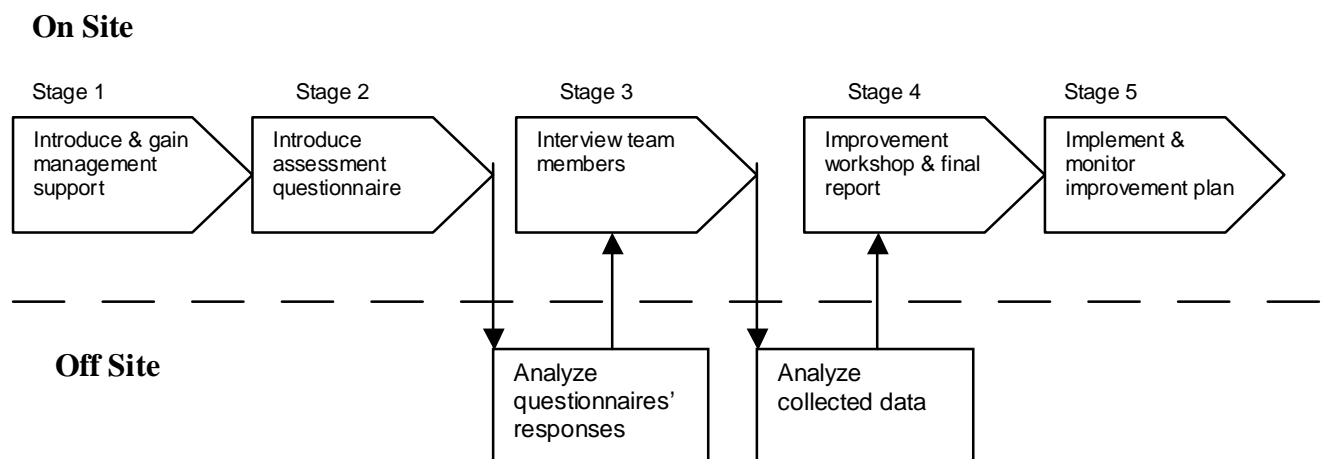


Figure 4-6: SPICE Assessment Methodology, source: Sarshar, 2000

The maturity models are basically change management tools to smoothly introduce enterprise project management and they are based on the concept that: an organization will have to go through lower maturity levels first, before reaching the next higher level and the last level is continuous improvement to the existing process. The table next page compares and contrasts the different maturity modules not described above and are used in practice by different industries. Table 4-6, compares and contrasts seven different maturity models based on eleven criteria, namely: (1) primary targeted disciplines, (2) levels of maturity, (3) levels of details, (4) evaluating the organizational effectiveness, (5) evaluating the financial effectiveness, (6) evaluating the maturity based on processes and project phases, (7) compare and correlate with actual project performance, (8) derive return on investment calculations, (9) applied to actual organizations, (10) commitment for continuous improvement, and (11) potential impact on project management community.

The primary disciplines that the models target are project management, software development, new product development and engineering and construction. All the models contain five levels of maturity except the Dooley's Product Development Maturity Model that was not clear. All the seven maturity models evaluate organizational effectiveness but only Berkeley's Project Management Process Maturity Model evaluates financial effectiveness. Also, the Berkeley's Project Management Process Maturity Model is the only one that evaluate based on processes and project phases and it is the only one that derive return on investment calculations. The CMM and Kerzner's Maturity Model that mentioned earlier are simple to use because they are based on project processes and project phases only.

4.4 Performance Management

For any organization to establish a successful enterprise project management framework, it needs to link the framework to a strong performance management system that applies control over the deliverables and serves as a gauge for how successful the application of the framework was?

The definition of performance management varies in the literature and has many other related terms. Bitici *et al* (1997) defined it as 'closed loop control system, where the corporate and functional strategies are deployed to all processes, activities and tasks,

and feedback is obtained through the system to enable appropriate management decisions'. He differentiated the term performance management from measurement and defined the latter as 'the information system that is at the heart of the performance management process and it is of critical importance to the effective and efficient functioning of the performance management system. Therefore, performance measurement is the process of 'determining how successful organizations or individuals have been in attaining their objectives and strategies' Evangelidis, 1992. To achieve this, the outputs of organizational strategic and operational processes are measured in a quantifiable form to monitor the 'vital signs' of an organization (Hornec, 1993; Euske, 1984; Kagioglou, 2001). The figure, next page, defines the relationship between performance management and measurement (Kagioglou, 2001). Originally, financial performance measures were used only to report on businesses. Such measures focused only on items such: return on investment, sales per employee, and profit per unit production. Sanger, 1998, found that 'financial measures which are useful- but tend to measure that past- and they tend to measure the easily measurable'. The inadequacy of financial measures as the only measure for business performance was report by a number of authors such as: Johnson and Kaplan, 1987; Hayes et al, 1988; Crawford and Fox, 1990; and Ghalayini and Noble, 1996. The main reason for the failings of financial measures is that they report on decisions and results made in the past and hence are of little use in improving the current situation or learning for the future. The financial measures report only on 'what' the performance of an organization was, but 'how' that performance was achieved is also important for the organization to improve and increase its market share.

Ghalayini and Noble, 1996, made a comparison between the traditional (financial based) measures and the non-traditional (non financial based). The main important findings of the comparison were: the non-traditional measures are focused on the company strategy, intended for the overall employees, intended to improve performance and help in achieving continuous improvement.

(Table 4-6: Comparing and Contrasting Different Project Management Maturity Models, Source: Kwak & Ibbs, 2000)

Comparing Different Project Management Maturity Models	Software Engineering Institute's Capability Maturity Model (1)	McCauley's Project Management Maturity Model (2)	Hink's IT & Process Maturity Model (3)	Fincher's Project Management Maturity Model (4)	MicroFrames's Project Management Maturity Model (5)	Dooley's New Product Development Maturity Model (6)	Berkeley's Project Management Maturity Model (7)	Project Process
Primary targeted disciplines	Software development	Project management	Engineering & Construction	Project management	Project management	New product development	Project management	
Level of maturity	1 to 5	1 to 5	1 to 5	1 to 5	1 to 5	Unclear	1 to 5	
Level of details	High	Low	Medium	Low	Medium	Medium	High	
Evaluating organizational effectiveness	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Evaluating financial effectiveness	No	No	No	No	No	No	Yes	
Evaluate maturity by processes and project phases	No	No	No	No	No	No	Yes	
Compare & correlate with actual project performance	Yes	No	No	No	Unclear	No	Yes	
Derive return on investment calculations	No	No	No	No	No	No	Yes	
Applied to actual organizations	Yes (successful)	No	No	No	Unclear	Yes	Yes (successful)	
Commitment for continuous improvement	Yes	Unclear	Unclear	Unclear	Unclear	Unclear	Yes	
Potential impact on project management community	High	Medium	Medium	Medium	Medium	Medium	Very high	

The traditional measures on the other hand are based on outdated traditional accounting system, intended for middle and high managers, intended for monitoring performance and hinder continuous improvement.

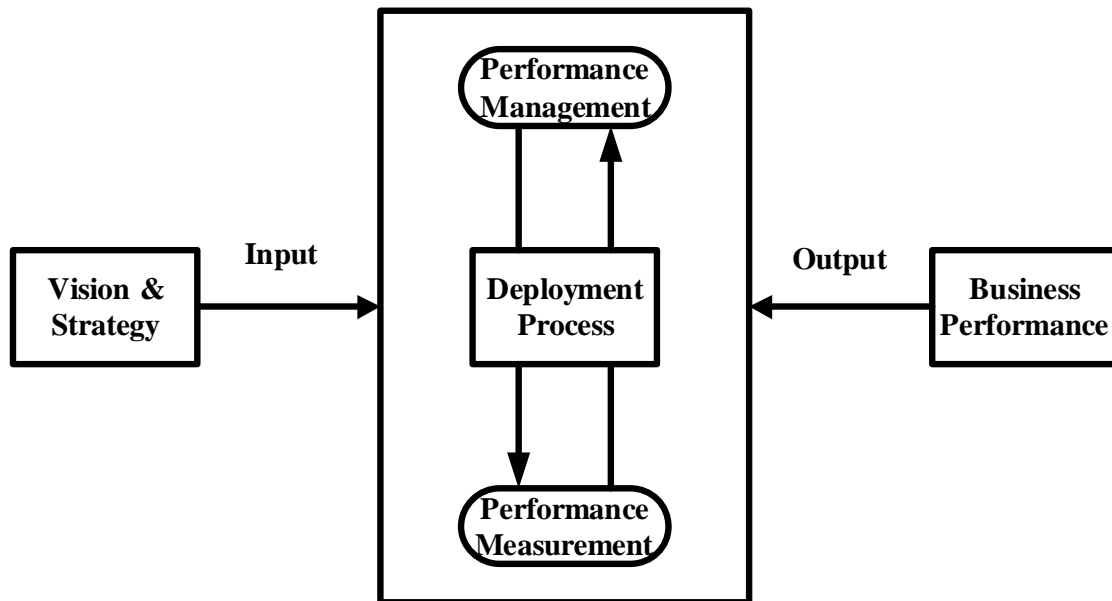


Figure 4-7: Performance Management and Performance Measurement Processes ,
 source: Kagioglou et al, 2001)

There are many frameworks that measure performance found in the literature, such as performance measurement matrix (Keegan *et al*, 1989), the performance pyramid (Lynch and Cross, 1991), the balance scorecard (Kaplan and Norton, 1996) and the EFQM Business Excellence Model (Lee, 2002). These frameworks provides means for (Lockamy, 1998, Lee, 2002): maintaining and alignment between strategic objectives and market requirements, coordinating the effective use of company resources, and monitoring progress toward the achievement of pre-determined strategic objectives. Description and critical evaluation of each of the above frameworks will be discussed in the following sections.

4.4.1 Performance Measurement Matrix (see Figure 4-8)

The performance matrix is non-traditional performance measurement. It is based on a two dimensional matrix- financial, non financial, internal and external, as in figure next page. The matrix does not link between the different dimensions of business performance like internal processes and continuous learning, Neely *et al* (2000).

4.4.2 The Performance Pyramid (as in Figure 4-9)

This particular framework identifies ten business dimensions to be measured. It is different than the measurement matrix in that it measures dimensions of interest to external parties like customer satisfaction, quality and delivery. But it was believed by Neely *et al* that it is difficult when put in operation.

4.4.3 The Balanced Scorecard

The Balanced Scorecard provides a balanced presentation of both financial and non-financial measures; by translating the business strategic plan into a set of objectives and quantifiable measures built around four perspectives (Kaplan and Norton (1996):

1. **Financial:** investor's view of the business,
2. **Customer:** the performance attributes valued by customers,
3. **Internal Processes:** the long and short-term means to achieve the financial and customer objectives,
4. **Learning and Growth:** capability to improve and create value.

The Balanced Scorecard framework was criticized for its simplicity (Brignall, 1992 and Gregory, 1993). Neely *et al* (1997) also criticized it as it does not consider suppliers as a dimension for measurement, and they are important stakeholders for any company's success.

4.4.4 The EFQM Model (Figure 4-10)

The model was designed by the European Foundation for Quality Management's Model (EFQM). It consists of two performance factors: enablers and results see the figure below. The model is based on the theory that 'excellent results with respect to performance, customers, people and society are achieved through partnerships, resources, and processes' (Lee, 2002). The titles of the measures are so open and can be interpreted in many different ways (Neely *et al*, 2000).

It is obvious from the above frameworks that they are focused on defining the measures, but there were no details about how to implement them in the organization. For example, the Balanced Scorecard framework is simple as it looks but when it comes to implementing it, it requires a lot of efforts to feed in the information required to arrive at the measures. Also, the input of information might not be accurate because it depends on the employees input when reporting their performance in relation to individual tasks.

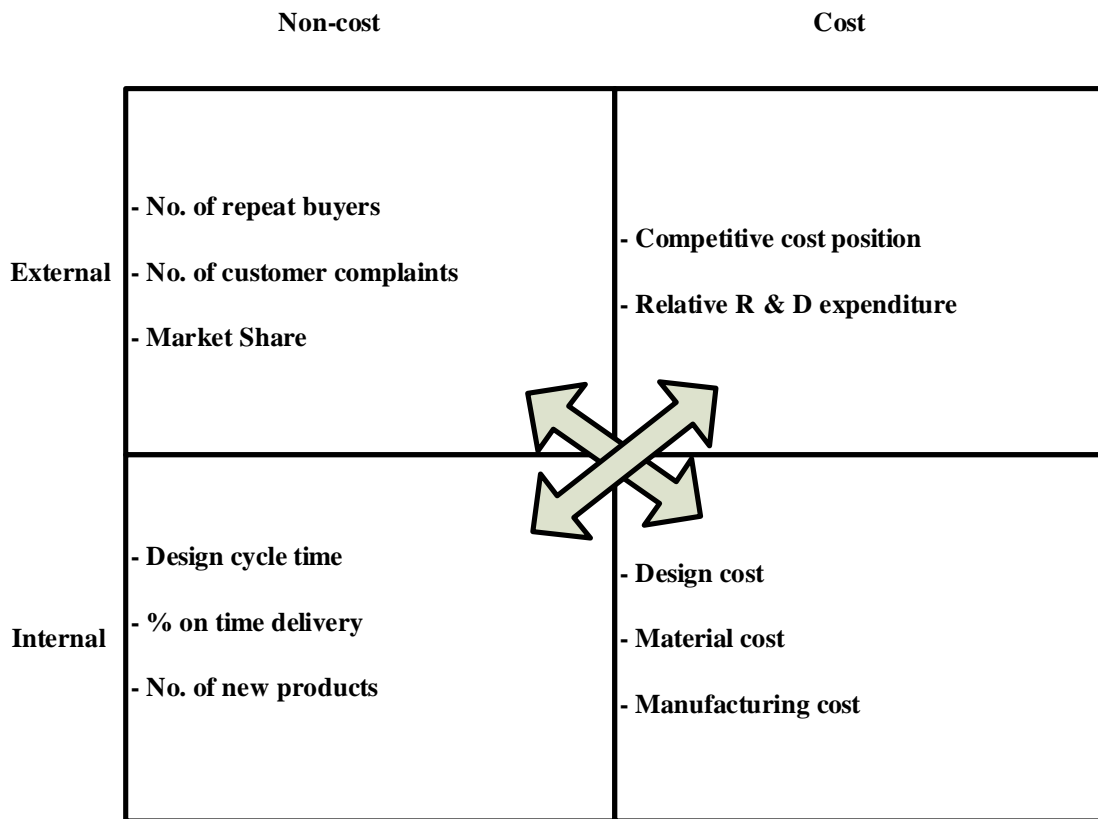


Figure 4-8: Performance Measurement Matrix , Source: Keegan et al, 1989

The above performance management systems are valuable in identifying the areas in which measures of performance might be useful, however, they provide little guidance on how appropriate measures can be identified and designed (Medori & Steeple, 2000). The process selecting what to measure consists of three main steps (Keegan *et al*, 1989): (1) the first involves looking at strategy, defining the strategic objectives of the company and determining how they could be translated into divisional goals and objectives, (2) the second involves deriving an appropriate set of measures by populating a performance measurement matrix, and (3) the third step emphasizes on instilling the performance measurement system into the overall management thinking.

4.5 Summary

The literature review identified that the history of project management reveals a shift in the use of project management, from being seen as simply a planning and scheduling tool to now being seen as a potential enterprise wide management system used to implement strategies. This shift has derived the expansion of project process to cover the full lifecycle, especially the front-end or definition phase of projects, because that is where the link between an organization's strategic goals and objectives and their implementation that is made through programs and projects. Enterprise project management was found to be different from the traditional project management, in that the former was a more comprehensive approach and as a result touches all functional departments in an organization. Also, enterprise project management has been revealed as the application of project management tools and techniques to achieve strategic objectives. Its application requires organizational and technological changes. Strategic goals and objectives are translated into implementation through programs and portfolio of projects. Maturity models are used to assess the capability of the company in implementing project management processes. For successful implementation of enterprise project management processes, a performance management system is required. There are many performance management systems found in the literature all with variations in the measurement dimensions. But all the systems that were found provide little guidance on how appropriate measures can be identified and designed.

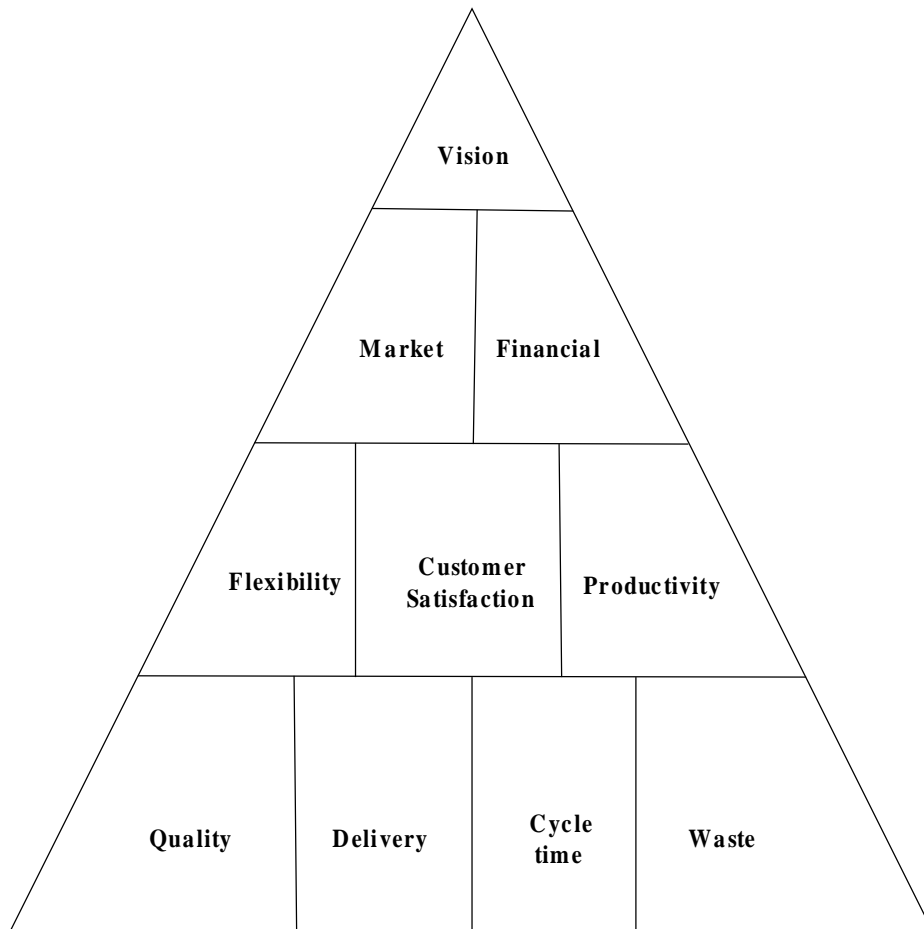


Figure 4-9: Performance Pyramid , Source: Lynch & Cross, 1991

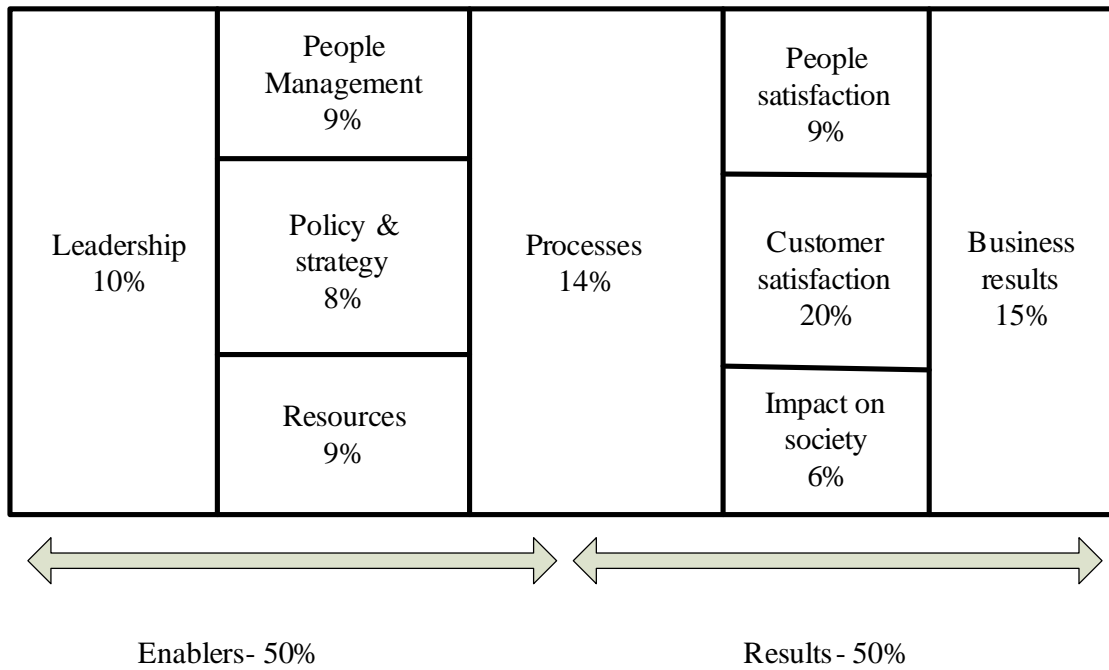


Figure 4-10: The EFQM Model, Source: Lee, 2002

Chapter Five: Organizational Learning and Change Management

5.1 Introduction

The previous chapters reviewed the theories behind strategic management and planning, and the potential to use enterprise project management as a tool to implement organizational strategies. The introduction of an enterprise project management framework within an organization will require it to go through a change. Such change needs a process to manage. Also, the effectiveness of the organization to adapt to the new situations will depend on its ability to learn through the successful implementation of knowledge management. As discussed in chapter three, the process of strategy formation was found to consist of two parts: the deliberate or intended and the emergent strategies. The emergent strategy focuses on organizational learning and it is based on the cumulative operative decisions taken by the management of the organization (Artto and Dietrich, 2004). Hence, there is a relationship between the formation of strategy and organizational learning, this relationship will be important to understand during the building of the enterprise project management model. Similarly, it is important to investigate the theoretical background behind organizational learning, knowledge management and change management, so this chapter will focus on critically reviewing the literature on these areas to arrive at strategies that could be used to manage the change process when implementing the new enterprise project management system within the research organization.

5.2 Organizational Learning and Knowledge Management

Learning is a process that is based on both individual actions and on organizational structure (Huemmer and Ostergren, 2000). The ability for an organization to prepare itself and act fast to change through learning from the outside environment; will definitely provide a competitive advantage. As argued by Drucker, (1997:22) that *'increasingly, a winning strategy will require information about events and conditions outside the institution. Only with this information can a business decide how to allocate its knowledge resources in order to produce the highest yield. Only with such information can a business also prepare for new changes and challenges arising from sudden shifts in the world economy and in the nature and content of knowledge itself'*.

The Collins COBUILD Dictionary (1999: 946) defined learning as ‘the process of gaining knowledge through studying’. And learning depends on the context, which means that if the person wants to acquire new knowledge and skills, he/she needs to go through the process of interaction, communication, negotiation and collaboration, by participating in cultural activities and practices (Sun, 2003). So the link between learning and organization is the context. From this argument, it is clear that the definition of organizational learning refers to the learning process of an organization as a system of people and structure. Knowledge management can be seen as the enabler and the tool for the organization to learn and adapt to the new trends and changes. There are many knowledge management definitions found in the literature, examples are the ones shown in Table 5-1.

Table 5-1: Definitions of Knowledge Management.

Author	Definition
De Jarnett, (1996: 3)	‘knowledge creation, which is followed by knowledge interpretation, knowledge dissemination and use, and knowledge retention and refinement’
Quintas <i>et al</i> (1997: 385)	‘the process of critically managing knowledge to meet existing needs, to identify and exploit existing and required knowledge assets and to develop new opportunities’
Cross (1998: 11)	‘the discipline of creating a thriving work and learning environment that fosters the continuous creation, aggregation, use and re-use of both organizational and personal knowledge in the pursuit of new business value’

The last definition by Cross (1998) is focused on the process of creating knowledge and not on the knowledge resources and assets as the other definitions. Choo (1996) stressed on the primary objectives of knowledge management as being to identify and leverage the collective knowledge in an organization to achieve the overriding goal of helping organizations to compete effectively. The interest in knowledge management as a subject for practitioners and academics came only during the mid 1990s. In 1996-1997, there were over 30 conferences on knowledge management organized in the USA and Europe, and about \$ 1.5 billion of costs were spent on consultants by

organizations needing to increase their knowledge levels (Quintas, 2005). The factors that caused this sudden surge in knowledge interest were as follows (Quintas, 2005):

1. **Wealth being demonstrably and increasingly generated from knowledge and intangible assets:** company value has come to be dependent on intangible assets, knowledge assets, intellectual capital, and intellectual property rights. For instance, in the early 1990s Microsoft was valued by the stock market to be worth more than IBM, where Microsoft was at that time relatively small with less than 14,000 employees as compared to IBM which employed over 300,000 people. The driver behind this evaluation was the ownership of the personal computer operating system which was an intangible asset (as it was based on intellectual property right).
2. **The rediscovery that people are the locus of much organizational knowledge:** in the early 90s, many organizations in Europe and USA underwent programs of ‘downsizing’ (by making people redundant), ‘delaying’ (by shedding layers of middle management) and ‘outsourcing’ (buying the services to do certain business functions). But, later on in that decade, organizations realized the importance of people as source of knowledge.
3. **Accelerating change in markets, competition and technology, making continuous learning essential:** the outside forces of change across many dimensions like changes in markets and industries, new forms of competition and new entrant competitors, globalization in markets and supply chains, and changes in technology which drive product and process innovation. These changes demand continuous regeneration and development of organizational knowledge, which means organizations and the people within them, must be continually learning.
4. **The recognition that innovation is the key to competitiveness, and depends on knowledge creation and application:** as competition becomes fierce, the need for innovation is recognized as being key in the achievement of competitiveness and innovation that occurs in products, processes or services. The main cause of innovation in organization is the management of knowledge- the creation, reformulation, sharing and bringing together of different types of knowledge.

5. **The growing importance of cross-boundary knowledge transactions:** the increasing complexity and the fast pace of change in markets and technologies make it impossible even for the largest organizations to cover all potential developments and to grow knowledge capabilities across all aspects of their operations.
6. **Technology limits and potentials: the limits of information technology and the potentials of communications and knowledge technologies:** information systems are only tools for transferring knowledge but they do not capture the knowledge, especially tacit knowledge. Therefore, organizations have learned that technology should not drive knowledge management strategies (Thornton, 2001).

Egbu and Robinson (2005) argued that there are four different kinds of knowledge, such as:

- ‘Know-what’- accumulation of facts that can be broken down into pieces
- ‘Know-why’- scientific knowledge that underlies technological development, product and process advancements,
- ‘Know-how’- skills or capability to do something and the reason for the formation of industrial networks to enable firms to share and combine elements of know-how.
- ‘Know-who’- involves information about who knows what and who knows how to do what.

In construction project context there are three factors that influence the knowledge management process (Egbu and Robinson, 2005): (1) products or project types, (2) processes, and (3) people.

Lipshitz *et al* (2002) developed a model of organizational learning with five facets, namely: contextual, policy, psychological, cultural and structural facets, these are explained briefly next and shown in Figure 5 -1 (Chan *et al*, 2005). Contextual facet deals with factors that management has no control or can only control indirectly, this includes items such as: error criticality (the immediacy and seriousness of the error’s effects), environmental uncertainty (the pace of change), task structure that is related

for the feasibility of obtaining valid information and people's motivation to cooperate with colleagues in learning, the proximity of the learning to the organization's core mission, and the leadership's commitment to change that result from learning. Policy facet is concerned with the steps taken by the organization's management to promote organizational learning such as recognition and reward. Psychological facet includes the psychological safety for the personnel to promote learning and sharing information and knowledge. The cultural facet is the organizational culture that helps in producing valid information and a commitment to corrective action. Structural facet refers to the organizational learning mechanisms (OLMs) that could be either integrative (such as the person learning is also doing the task) or non-integrative (such as the person learning but does not perform the task).

Organizational learning and knowledge management have been discussed so far, and found that for an organization to adapt fast to change, it needs to become a learning organization through the process of knowledge management, so one can conclude that knowledge management is the tool that is central for the achievement of organizational learning. Vera and Crossan (2003: 131) defined the relationship between learning and knowledge as being one in which 'learning and knowledge are intertwined in an iterative, mutually reinforcing process; while learning (the process) produces new knowledge (the content), knowledge impacts on future learning'.

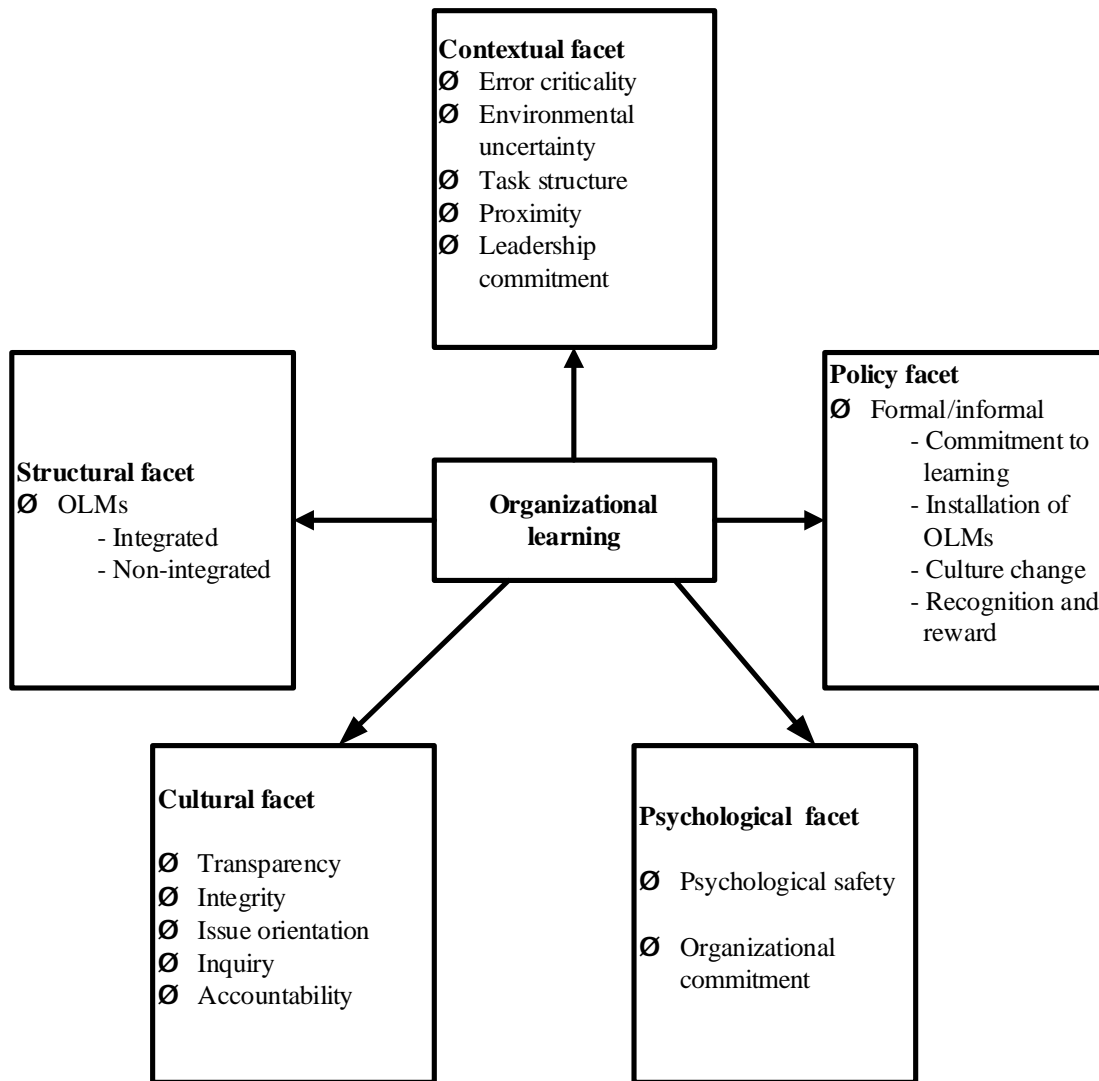


Figure 5-1: Facets of Organizational learning (source: Lipshitz *et al*, 2002 in Chan, 2005)

5.2.1 Project - based learning

Projects may serve as fields for developing and practicing learning. Also, they could cultivate effective habits of reflective practice that cross the boundaries of the specific project or project team. Ayas and Zeniuk (2001: 63) defined project based learning as ‘using projects as vehicles for creating such a context: setting the stage for reflective practices and inquiry at all levels within the organization, to reveal deeper aspiration and construct shared understanding. It is about acquiring habits of reflective practice in the project environment to benefit the individual, the organization and the society’. Kamara *et al* (2005) argued that there are two forms of relationships between projects and the parent organization: one relationship where the parent organization has a

'one-off' project (example, installation or upgrading of software). Here, the existing corporate knowledge is utilized to set-up the project, and after completing the project, the knowledge from the project will be fed-back to the parent organization. The second form of relationship is where the parent organization is executing multiple projects at the same time or sequentially (i.e. implementing enterprise project management); the knowledge here will be transfer in a cyclical manner between the projects and the corporate knowledge. According to Prusak, 1997, project-based organizations might be at risk of 'learning closure', which means that each newly formed project starts new rather than from a base that reflects learning from its predecessors. The phase of project review in the project lifecycle might help in overcoming this problem if was defined and implemented. Kamara *et al* (2005) developed a system for capturing knowledge on a project. The system consists of: project knowledge file, integrated workflow system, and project knowledge manager. During the project execution phase, learning may occur from many events, and this learning could be from the project being implemented, the project process or the project team. The procedure in the knowledge capture system starts when the learning event occurs, the integrated work-flow system is triggered and flow of actions are set to capture the learning at a particular time, the learning is compiled and edited in the project knowledge file for reuse within the current project, or in the subsequent projects. The role of the project knowledge manager is to develop and manage the project knowledge file and the integrated workflow system.

It is posited that the implementation of an enterprise project management system can enhance the capability of the organization through effectively managing knowledge, because the project could act as an environment for enhancing learning in organizations, but requires a system to capture and disseminate the knowledge. In the next section, the definition, drivers and strategies of dealing with change will be discussed.

5.3 Change management

Change is driven by many factors either outside the control of the organization (such as: economic conditions, technology, and/or regulations); or factors that are within the control of the organization (such as: corporate strategy change or process change). However, change may interrupt the business within the organization and cause

resistance by the people. McElory (1996) identified four main reasons for the resistance to change:

1. **Smooth flow of operation versus step change to change opportunity:** managers in organizations have to spend a long time making sure that their departments run smoothly and that changes, where necessary, are introduced gradually without interrupting the flow of work.
2. **Efficient execution of tasks versus securing of desired benefits:** the change, when it occurs, may cause a freeze to some activities especially during the start of the change process, and this will cause interruption to the 'status quo' or the usual way of executing tasks.
3. **Current way of doing business versus future way of doing business:** an organization adapts its structure, style, practices, methods and value systems to match the way it does business. Making any changes may require managers and staff to adapt to new ways. For example, the implementation of an automated process may force people to learn computer skills, which could make them fear from this new way because of the uncertainty that the change involves.
4. **Established distribution of power versus new distribution of power:** the change might bring disturbance to the power authority within an organization, which might cause some managers, who have most power, to resist the change.

To overcome these issues, change must be viewed in the context of the organization as a whole, because it will influence every part of it like the culture, the processes, the values and beliefs, and the structure. The people's reaction to change depends on two main factors: the change experience that they have gone through and the perceived results from the attempted change, these are shown in Figure 5-2 below. When people have no experience about change and do not know or they have never experienced change, they will fear change. On the other hand, if they have experienced change and perceived good results from change, they will be change comfortable. Individuals who are at change eager and change fatigue represent the differences between the two dimensions.

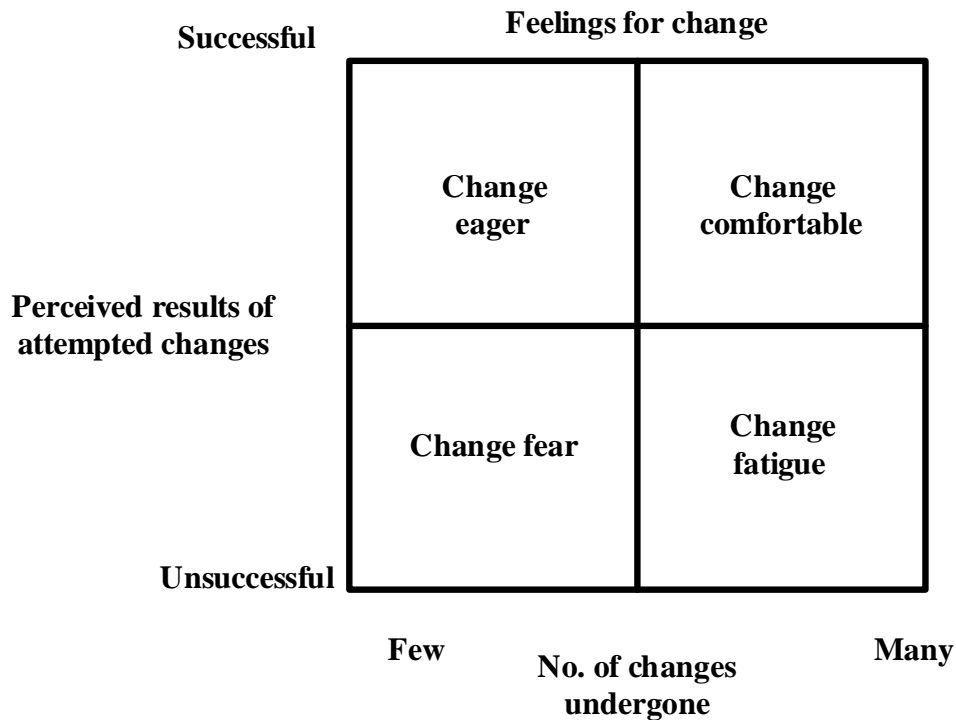


Figure 5-2: the relationship between feelings and response to change, (Source: McElory, 1996)

There are three forms of change that have been identified by Kleiner (1989) and Hunt, 1986: 1). **Developmental:** making the change in an incremental manner, usually resistance to this form is less; 2). **Transitional:** planned change by removing the old state and replacing with new one; 3). **Transformational:** usually a major change in the organizational strategy like restructuring. The one that require more management is the third one, because it affects all the organization.

Change usually goes through a process, and once the process is understood strategies for managing the change could be implemented. Dallevalle (1991) described three-stage process for change (as illustrated in Figure 5-3b): 1). **Unfreezing:** during which the members in the organization let-go of their own experience; 2). **Adjustment:** during which the members go through a change of attitude; 3). **Refreezing:** during which the members adapt to the new situation. The drivers, the process and ways of managing change can be summarized as in Figures 5-3a and 5-3c.

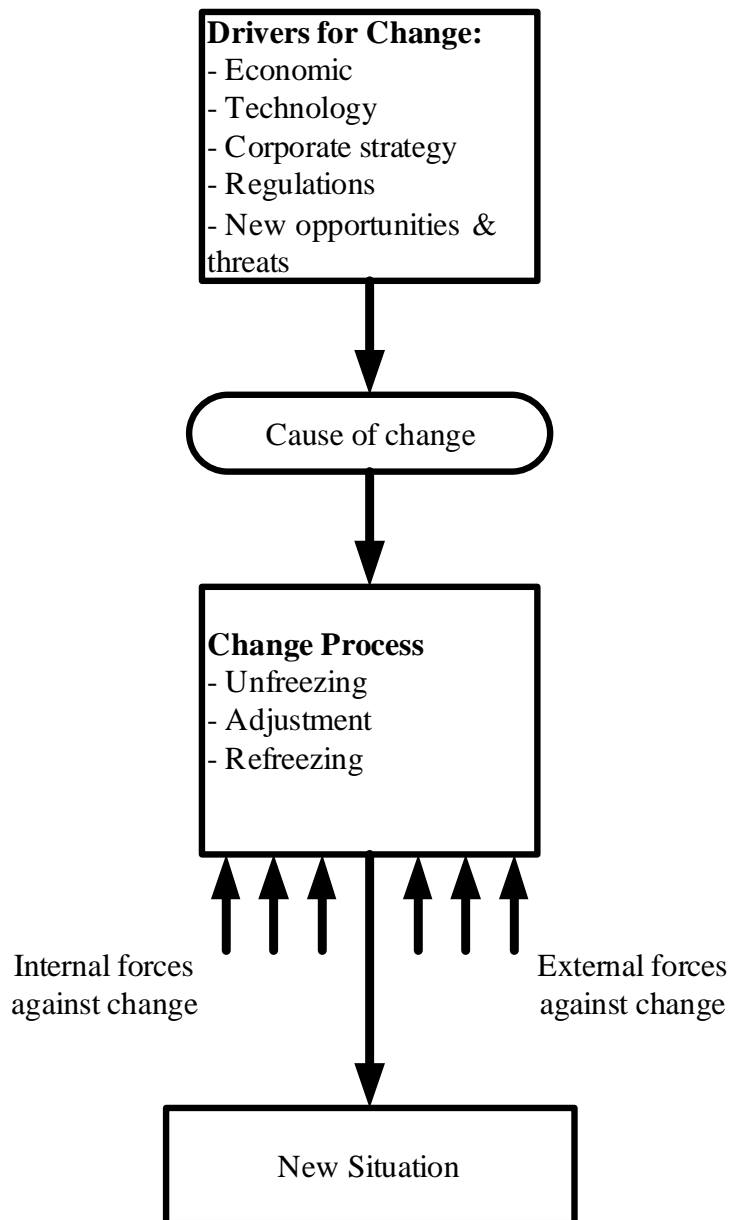


Figure 5-3a: The Process of Change Management,
(Source: Al-Balushi, 2006)

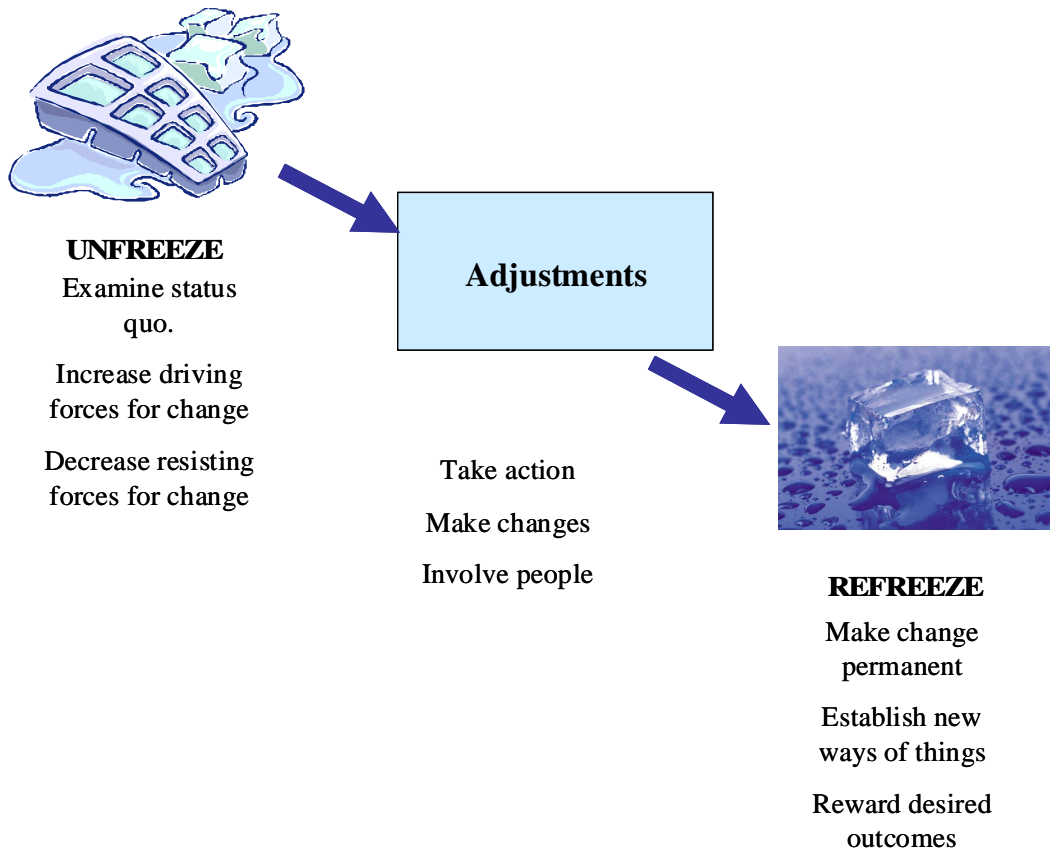


Figure 5 – 3b : Three-steps Process for Change

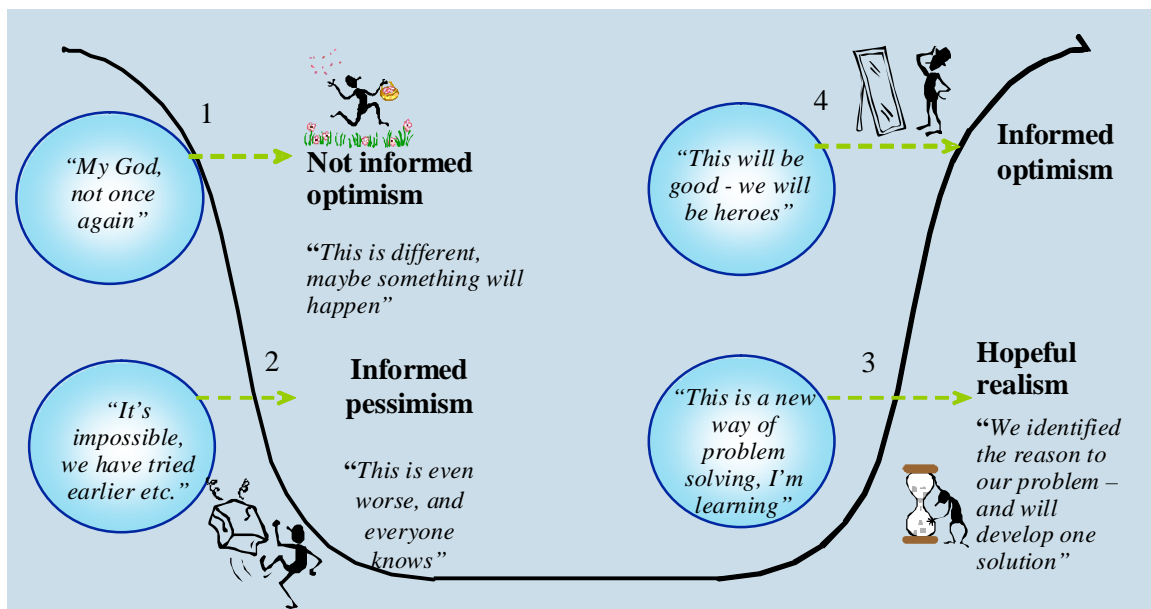


Figure 5-3c : The change process in organizations, Source: Conner, 1998

In a change situation within an organization, four types of people can be identified as shown in Figure 5-3c, namely: (1) **not informed optimism** people who support the change but without knowing the reasons and why, (2) **informed pessimism** are those

people who have tried change before and failed so they are afraid to try it again, (3) hopeful realism are those people that they have hope of learning and things will get better, and (4) **informed optimism** are people that they have tried change before and they have succeeded so they like to do it again. All four types of people can be found in any change situation and they all must be treated in different manner. For example, group four people should be use as change agents as they will try to support the change process.

There are many methods and ways of dealing with change situations. Kotter and Schlesinger, 1979, identified six methods for dealing with change: Education and communication, participation and involvement, facilitation and support, negotiation and agreement, manipulation and co-optation, and explicit and implicit coercion. Table 5-1 shows the advantages and disadvantages of each method.

Table 5-2: Different Methods of Implementing Change, (source: Bell, 1994)

Method	Situations used in	Advantages	Disadvantages
Education & communication	Where there is a lack of information	People usually help in implementing change once they are persuaded	Can take long time if the change affects large number of people
Participation & involvement	Where the agents of change do not have all information needed to design the change and targets have the power to resist	Participants in the change will be committed to change and will reveal all information they have to support the change plan	Can be time consuming if agents design an inappropriate change.
Facilitation & support	Where there is a resistance because of adjustment problems	No other approach work best other than this in this situation	Can be time consuming, expensive and might fail if people did not see benefits

Negotiation & agreement	Where some people or group will loose out in the change (example during mergers or alliances, the management of one company will loose power to the other)	Depending on the negotiation skills it could be an easy to avoid major resistance	Can be too expensive to exercise.
Manipulation & co-optation	Where other tactics will not work	It can be easy to implement and less expensive to implement	Can lead to future problems if people felt they were manipulated
Explicit & implicit coercion	Where speed is required and the change agents possess considerable power	It is speedy and can overcome any kind of resistance	Can be risky especially if it leaves people unhappy.

The above methods could be used all in one change program like the transformational, because this type of change affects all parts of the organization.

McElory (1996) identified similar methods for dealing with change but added one more method which was termed *intervention*, where management initiates changes through the use of projects. This allows the management to define its requirements for the end ‘products’ but uses the staff to implement the change.

Sull (2003) viewed change in terms of commitments made by the management of an organization in the following five areas: (1) strategic frames (the shared mental models that shape how managers and employees view the world), (2) resources (tangible and intangible assets of the organization), (3) processes (how things get done in an organization and includes both formal and informal procedures), (4) relationships (with external individuals and organizations), and (5) values (what the organization’s employees believe in that inspires, unifies and identifies them).

According to Sull (2003) when the change occur, an organization fails to respond to such change at the required efficiency to make it successful because of the ‘active inertia’ situation. Active inertia, as defined by Sull (2003: 24), is ‘*the management’s tendency to respond to the most disruptive changes by accelerating activities that succeeded in the past*’. In other words, when the world changes, organizations respond with more of what worked before and not with what is required to do. Thus, active inertia slows down the change process and for any successful change management, the above five areas need to be analyzed carefully.

5.3.1 Implementing Change Using a Project Management approach

Change initiatives can be implemented through projects or program management, by using this approach, there are many benefits to an organization seeking to change, namely (McElory, 1996):

- Management are able to set the direction and demonstrate their own commitment to change,
- The complex changes can be managed by projects using project management tools such planning, controlling and executing techniques, and these techniques will ensure: all initiatives are coordinated, management are in control, there is early definition, planning and establishment of controls, risk can be identified and managed, and all staff become committed through involvement.
- The implementation of a program management approach will: identify the interdependencies between projects and will be raised for the attentions of the organization management attention to avoid delay, the early planning of the program will provide a mechanism for classification and prioritization of projects, and this would allow projects to be assimilated on an incremental basis.

The strength of the project management method to affect change lies in its systematic processes with its emphasis placed on the planning process. As through the planning and the involvement of all the people involved, the end products or the objectives from the change project will be understood and this will make the people implement more change because they know what they are aiming for. Also, the project management approach is a team approach and this will attract the people to support the implementation as they feel that they are part of the change management process.

As discussed in chapter two, the research organization in its journey to change from government owned identity into private company; it requires a change in its processes and strategies. And because of the time pressure from the external environment, which is the liberalization of the telecommunication market in Oman and the introduction of new competitors, transformational type change is required. This change transforms the internal processes into efficient way that will give competitive advantage by being able to introduce services and products in the market faster than the competitors to gain customer's trust. And this chapter has provided the theoretical information for managing change and applying the tools and techniques to become a learning organization. Such information is required when designing and implementing the new proposed enterprise project management model.

5.4 Summary

This chapter considered the theories behind organizational learning and knowledge management and found that knowledge management is the process utilized by organizations to capture, disseminate and retain knowledge, to become learning organizations. Projects in organizations can serve as learning tools, because they provide the environment for exchange of knowledge from projects to the organization knowledge-base. As the aim of this research was to design and implement an enterprise project management model for the use in the research organization that it has been shown that it has to go through transformational change. This change will be achieved through a three-stage process: unfreezing (from the old situation), adjustment (the employees need to let go of their old experience), and refreezing (the new emergent situation). Project management tools and techniques are found to be good for implementing change because they provide a systematic approach that place emphasis on planning and control.

Chapter Six: Research Methodology

6.1 Introduction

The literature reviews conducted thus far demonstrated the need for this research study. It has been shown that there is a clear need for a process that defines the translation of business strategies into project strategies. It is the aim of this chapter to review and critique the various research methodologies for use in a scientific enquiry process. The chapter will discuss the research strategies available and justify a methodology that has been used in the development of an Enterprise Project Management Model to effectively translate business strategies into implementation or project strategies. To achieve its aim, this chapter will discuss the research strategy and design, quantitative and qualitative methodologies, the criteria for a valid research approach, and the validation of research results. The last section will cover the chosen research methodology in details.

6.1.1 Definitions

The Chambers Dictionary (2001: 1404) defined the word research as ‘a careful search or investigation; systematic investigation towards increasing the sum of knowledge. The important terms in this definition are ‘careful, ‘systematic investigation’ and ‘increasing the sum of knowledge’. If these terms thought of in actual research context, then, the terms ‘careful’ and ‘systematic investigation’ represent the hypothesis or the question the research is trying to answer, and the term ‘increasing the sum of knowledge’ symbolizes the contribution to knowledge a research would provide. For this research, the main research question can be put as ‘*can we use project management methodology to implement organizational strategic objectives?*’ The term careful and systematic refer to the careful selection of the research methodology.

According to fellows and Liu (2003: 5) research is defined as “a learning process, perhaps the only learning process”. Also, Denzen (1984) defined research in terms of a process of enquiry and investigation, systematic and methodical and it increases knowledge. By process it is meant the process of building theory from research. And this process has to be based on clear strategy and follow systematic steps to achieve the main aim and objectives of the research. Lee (2002) suggested that there is no

single universally accepted scientific research methodology that suits all researches, however, a combination of methodological paradigms are used to form the research methodology. Hence, every research methodology is unique and only applies for its intended purpose. The research methodology should describe the route of the research using different data collection methods (Yin, 1994). Fellows and Liu (2003:31) defined research methodology as “*the principles and procedures or logical thought processes which could be applied to a scientific investigation*”. And they added that research method as ‘method concerns the techniques which are available and those which are employed in a research project’ (P: 31). So, in the case of this research as we shall see that action research is the research methodology and the different data collection approaches are the research methods.

6.2 Research Strategy and Design

According to Kolb *et al* (1979) learning can occur in a cyclic process. It starts with an experience of a certain event or phenomena, which the individual then reflects upon in trying to make sense out of it, and this might lead to an explanation of how or why the event happened the way it did. The last stage in the process is the testing of the concepts developed from the event to generalize it to new events. As far as the research is concerned, the last stage of the Kolb’s process is an important one.

Before we move into the research method and strategy, it will be good idea to explain the two paradigms behind research, namely: positivism and interpretivism paradigms.

The positivism paradigm recognizes only observable events and non-metaphysical facts. It was first originated by Auguste Comte (1798-1857); the paradigm of positivism ‘*asserts, in common with one branch of the Cartesian duality, that there are observable facts which can be observed and measured by an observer, who remains uninfluenced by the observation and measurement*’ (Fellows and Liu, 2003: 18). It is clear that positivism calls for quantitative methods of research, which dictates empirical investigation. However, this paradigm separates the ‘facts’ from the ‘observer’ and depends on the objectivity of the observer without being influenced by the event or phenomena under investigation. In reality, this can not happen because our perception toward things always influences our decisions in the way we approach and measure the event. Chia (1994) cited in Fellow and Liu (2003: 18) contrasted positivism by his statement: ‘*positivist theories maintain that laws and principles are*

empirically discoverable while Kantian theory insists that the basic categories of logic time and space are not 'out there' but are inherent constituents of the mind'.

Unlike positivism, the interpretivism paradigm is based on the principle that there is a relationship between the reality and the individuals involved. Fellow and Liu (2003: 18-19) described the interpretivism as *'one person's reality, derived by observations and perceptions and modified by socialization (upbringing, education and training) is likely to be different from another's. Therefore, truth and reality are social constructs, rather than existing independently 'out there', and so researchers should endeavour to determine truth and reality from the participants' collective perspective- to see things through their eyes. Such determination is likely to require extensive discussion with participants, in order to achieve agreements on the representation of their truth and reality'*. From the explanation of Fellows and Liu, the interpretivism approach is linked to qualitative research methods, because it accounts for individual's interaction with the event or phenomena under investigation. But also, it can be used in quantitative methods, because for example, if questionnaire data collection method was chosen, the respondent's answers will be dictated by their perception and views on the question and the event under study. Creswell (2003) explained the tools and skills required for implementing each paradigm: positivism, he suggested it needs technical writing and statistical skills, and there tends to be rules and guidelines for the conduct of the research, there is subsequently a low tolerance for ambiguity. On the other hand, interpretivism needs literary writing and text analysis skills and since there tends to be a lack of specific rules and procedures for conducting research there is a high tolerance for ambiguity.

As far as this research method is concerned, it lies within the interpretivism paradigm, because of the nature of the question requires input from the social participation of the employees in the research organization, so more of the data that was collected are qualitative in nature, except for the preliminary phase, where questionnaire was used.

Given the research problem identified earlier in chapter one, it was necessary to consider methodology that sets out in terms of an overall research strategy and method. The term research strategy was defined as the way going about the research to achieve the research objectives by employing various research methods (Lee, 2002). Gill and Johnson (2002) developed a matrix that could help a researcher to

decide on the research strategies. The matrix is shown in the figure below. It is clear from the matrix that experimental research is concerned with precision, the survey methodologist with generality, and the ethnographer with the character of the particular context and the action researcher with issues of utilization (Gill and Johnson, 2002).

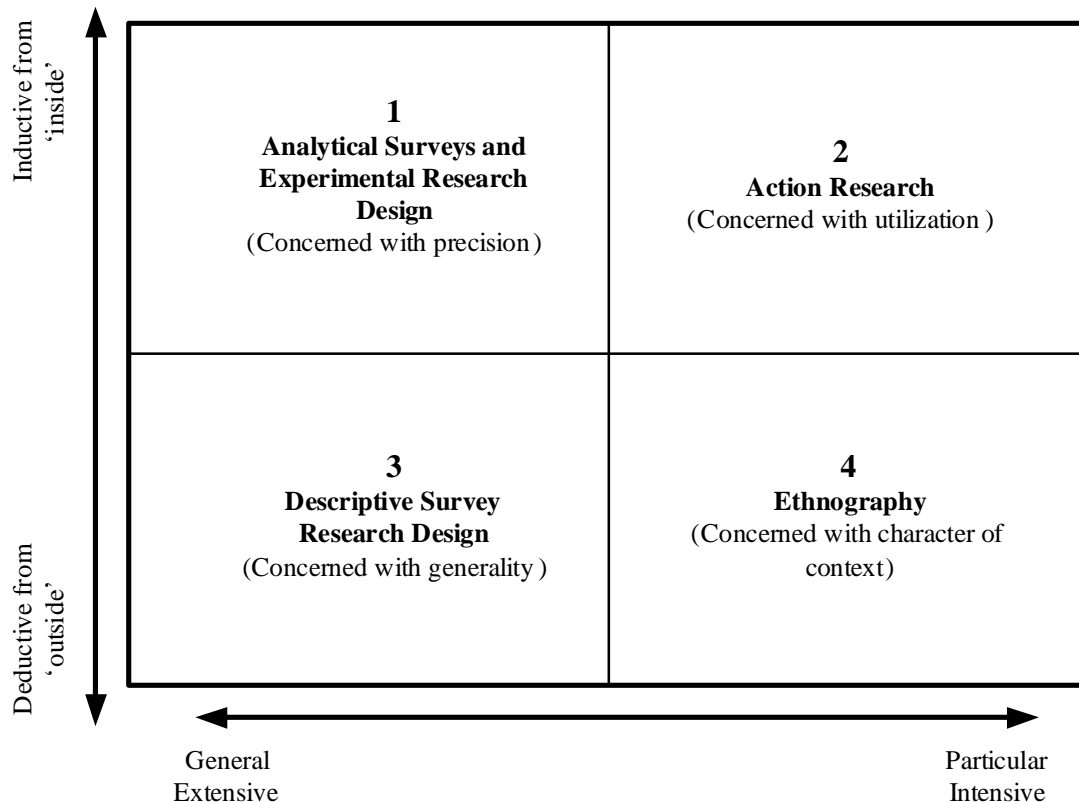


Figure 6-1: Analytical Matrix of Research Strategies , source: Gill and Johnson, 2002

Research methodology can be considered as the blueprint for directly collecting observations and data connected to the research (Lee, 2002). Also, research methodology should make explicit the question that the researcher should answer, develop data collection methods and discuss the data in relation to the initial research questions (Simister, 1995). It is clear that any research should set strategy to fulfil its main objectives and use research methods to achieve the objectives, and all this will be termed as the research methodology. For successful implementation of the research methodology, it is believed that every researcher needs to design how the research questions would be answered through the identification of aims, purposes, intentions, and plans; such a design has to be within the practical constraints of location, time,

money, and availability of staff. Thus for any research the researcher needs to set the strategy in terms of plans to help him/her to achieve the overall objectives of the research. Such plans should include the data collection methods and their designs.

6.2.1 Research in the Construction Management Industry

Although the environment for this research is not construction, but the audience it addresses is within the construction management industry. Thus, it is important to consider here the philosophical debate on paradigms in relation to the construction research. Such a debate will contribute to the knowledge of the researcher, as well as, it will support the argument in selecting a paradigm for the study to be accepted by the industry. Seymour and Rooke (1995) supported by Raftery *et al* (1997), suggested a paradigm shift from the 'rationalist' or positivist in construction management research. They said that positivist paradigm '*does not require researchers to question their own position. Instead, rationalists put their faith in the use of particular methodological routines to guarantee their impartiality. The researcher's values are regarded as either irrelevant or self-evidently correct*' (P: 521). They concluded that the rationalist paradigm is inappropriate as a dominant research paradigm in construction management, because they believed that it is located within the area of social science, which implies the interaction between the event and the researcher is highly required. However, Runeson (1997) supported the rationalistic paradigm, by stating that 'rejecting the rationalistic paradigm, because it concentrates on establishing causality, is rejecting science as something that can be used for predictions or can be tested' (P: 300). The view of Runeson was based on the role of theory in predicting the results of the phenomena. But, in their reply to Runeson (1997), Seymour *et al* (1998) confirmed the benefits of both paradigms. They summarized their view as: 'science, as it is understood by positivism, is not the only form of academic discipline. There exists an academic tradition of equal rigor and for many purposes of greater appropriateness to the study of social conduct' (P: 112).

From the above arguments, whether supporting or attacking the rationalist paradigm, it can still be seen that the interpretivism paradigm was well accepted by the authors. It can be concluded that the selection of a paradigm will depend on the nature of the problem under investigation. It is, also, believed that construction management research tends to shift more toward the interpretivism paradigm because it deals with

a society of different disciplines and its issues or problems need to be investigated within a social setting.

6.3 Quantitative and Qualitative Methodologies

6.3.1 Quantitative

According to Punch (2000) empirical research contains empirical data of two types: quantitative, which was defined as empirical research where the data is in the form of numbers, and qualitative research, which was defined as empirical research where the data is *not* in the form of numbers. Figure 6-2 below shows the differences between quantitative and qualitative research methods.

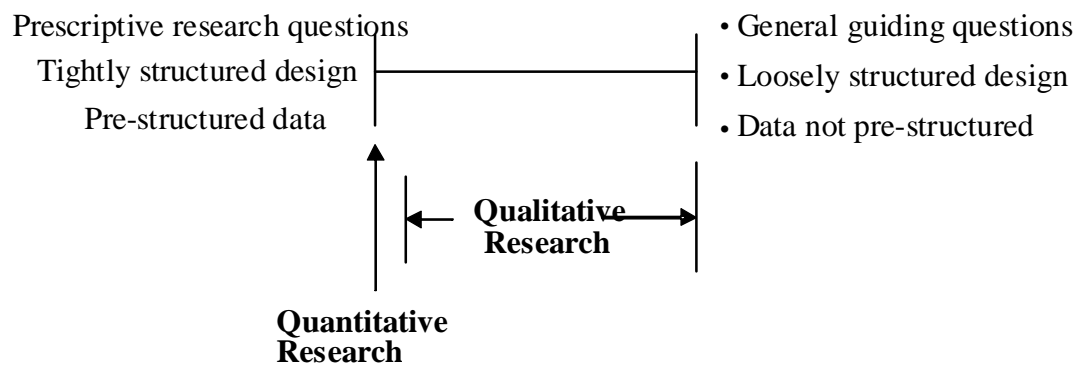


Figure 6- 2: the Quantitative vs. Qualitative research Source: Punch (2000 pp 23)

Coolican (1993) stated that quantification means to measure on some numerical basis. Whenever we count or categorize, we quantify, and a qualitative approach by contrast emphasizes meanings, experience, descriptions etc. It is clear that quantitative research put more emphasizes on numbers that represents opinions and concepts, however, qualitative research focuses on observations and expressions that describe reality and attempts of people in natural situations.

The quantitative research approach is more favourable by researchers adopting positivist stance (Bryman, 1996). Horna, 1994, argued that the design of the quantitative research was characterized by the assumption that human behaviour can be explained by 'social facts' that could be investigated by methodologies that utilize '...the deductive logic of the natural science'. The researchers who favour quantitative approach work to test theories and concepts through collecting data by

surveys, questionnaires or experiments that could be often analyzed using statistical methods. Survey questionnaires uses cross sectional and longitudinal studies to collect data and experiment measures the effect of manipulating one variable on another variable to find casual relationships between the two variables (Keppel, 1991).

Nau (1995) argued that quantitative investigations look for distinguishing characteristics, elemental properties and empirical boundaries and tend to measure 'how much and how often'. The problem in quantitative research is best addressed by understanding what are the variables or factors that influence the behaviour or outcome. This implies that the researcher studies in detail the outcome or behaviour to be able to understand the problem.

The quantitative theory is used deductively with the aim of testing or verifying rather than developing it. The process of the deductive research model is shown in the figure where the researcher advances a theory, collects data to test it and reflects on the confirmation or disconfirmation of the theory by results (Creswell, 2003).

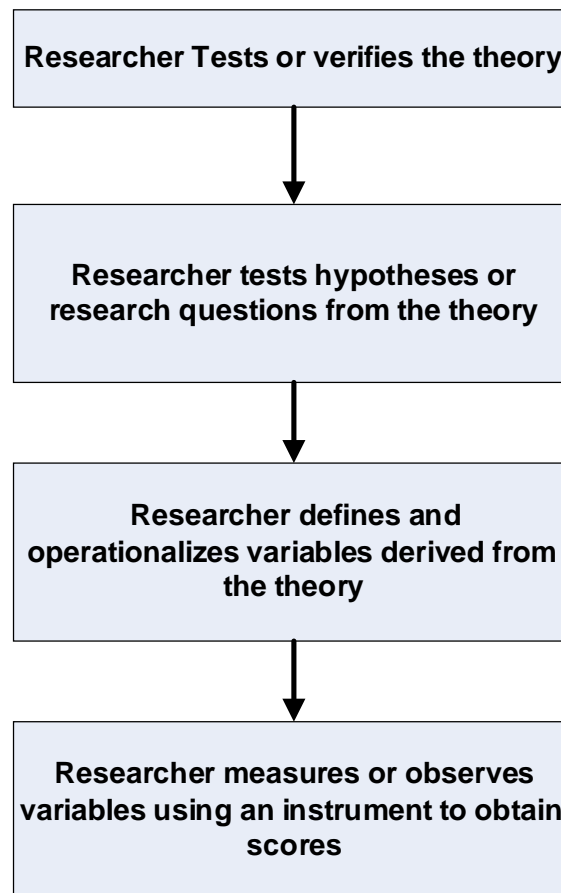


Figure 6-3: the deductive approach in quantitative research (Creswell, 2003)

In the model shown in figure (6-3), the researcher tests the theory by examining the hypotheses or questions derived from the theory and these questions or hypotheses contain variables that need to be defined.

The focus of any research is on the theory which will become the frame work for the entire study, the organizing model for the research questions and for the data collection procedure.

Quantitative research assumes certain conditions such as that (Roberts *et al*, 2003): The subject is detached, the subject is objective, the researcher is physically detached from the sample, the researcher takes selective or focused view, the research success can be achieved by observation, results have an objective meaning, research should be deductive, research should have the strongest possible structure, data can be collected in a controlled environment, the research results should be replicable, the results are representative of the population as a whole (external validity), the subject can be accurately measured in objective terms, the relationship between two events or

variables can be established beyond reasonable doubt, using a quantified approach, theories can be developed that explain the casual relationship between events or variables, and in some cases, models can be developed that mirror and/or predict observed interdependences.

The main strength points of a quantitative research approach are that the results that are statistically reliable and the findings from the representative sample can be generalized to the entire population provided of course that the research has been properly designed. However, the weakness of the quantitative research lies in its failure to investigate any deeper meaning or explanation of the problem (Lee, 2002). Instead, it tends to take a 'snap-shot' of a situation that is to measure variables at a specific moment of time (Chadwick *et al*, 1984). Another weakness was found by Gable (1994), which is the limitation of actions the researcher can do once he/she discovers either a crucial item has been omitted from the survey, or/ and discovering that a question is not clear or misunderstood to the respondent. The solution for this according to (Gable, 1994) was that the researcher should think of the answer sought for before designing the question.

6.3.2 Qualitative

According to Naoum (1998) 'qualitative research' is subjective in nature. It emphasizes meanings, experiences, description and son on. He classified the information gathered under qualitative research as being 'exploratory and attitudinal'. Exploratory research is used when the researcher has limited knowledge about the topic and conducted for three main reasons (Zikmund, 1997) namely, diagnosing a situation, screening alternatives, and to discover new ideas. Attitudinal research is used to 'subjectively' evaluate the opinion, view or the perception of a person towards a particular object (attribute, variable, factor or a question).

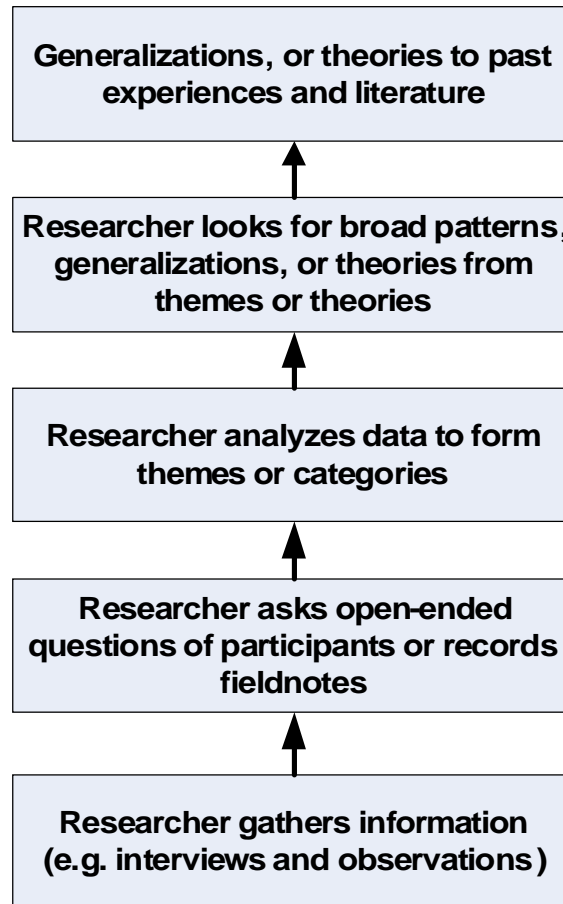


Figure 6-4: the Inductive approach in qualitative research (Creswell, 2003)

Figure (6-4), above, explains the process of ‘inductive’ research as set out in (Creswell, 2003), where the researcher builds theory from the informants during the study, unlike the ‘deductive’ research approach, where the theory is predetermined at the start of the study and the researcher tests the hypotheses derived from the literature.

Qualitative research includes methods such as action research, case study or grounded theory. In action research, the researcher is involved in close collaboration with a group of people to improve a situation in a particular context setting. The researcher does not do research 'on people' but instead works with them as a facilitator to achieve change (Dawson, 2002). A case study approach investigates a single entity, namely the research case, by collecting data using a variety of data collecting methods for a specified time period (Yin, 1989) and grounded theory attempts to derive a theory by

using multiple stages of data collection and the subsequent refinement of information to form themes (Lee, 2002).

The focus of the researcher in qualitative approach is on understanding the meaning of a phenomenon or behaviour by describing the context and understanding of the position of the people, who affect or are affected by the phenomenon (Miles, 1979).

Also, Cohen and Mannion (1994) argued that qualitative researchers carry out their studies within the natural setting of the phenomenon. This would require the researcher to have direct and in-depth knowledge of the research setting through intense and face-to-face contact like interviews in a regular basis.

It is clear that qualitative research approach depends on rich and deep data being gathered through close contact between the respondents and the researcher and measures attitude based on opinions, views and perceptions.

Johnson and Onwuegbuzie (2004) identified the following strengths and weaknesses of a qualitative research approach; they said it has strengths such as: the data are based on the participants own categories of meaning, it is useful for studying a limited number of cases in depth, it is useful for describing complex phenomena, it provides individual case information, it can conduct cross-case comparisons and analysis, it provides understanding and description of people's personal experiences of phenomena (i.e., the "emic" or insider's viewpoint, can describe, in rich detail, phenomena as they are situated and embedded in local contexts, the researcher identifies contextual and setting factors as they relate to the phenomenon of interest, the researcher can study dynamic processes (i.e., documenting sequential patterns and change), the researcher can use the primarily qualitative method of "grounded theory" to generate inductively a tentative but explanatory theory about a phenomenon, can determine how participants interpret "constructs" (e.g., self -esteem, IQ), data are usually collected in naturalistic settings in qualitative research, qualitative approaches are responsive to local situations, conditions, and stakeholders' needs, its researchers are responsible to changes that occur during the conduct of a study (especially during extended fieldwork) and may shift the focus of their studies as a result, qualitative data in the words and categories of participants lend themselves to exploring how and why phenomena occur, one can use an important case to demonstrate vividly a phenomenon to the readers of a report, it determines idiographic causation (i.e. determination of causes of a particular event).

The weaknesses, on the other hand, are: knowledge produced may not generalize to other people or other settings (i.e. findings may be unique to the relatively few people included in the research study), it is difficult to make quantitative predictions, it is more difficult to test hypotheses and theories, it may have lower credibility with some administrators and commissioners of programs, it generally takes more time to collect the data when compared to quantitative research, the data analysis is often time consuming, the results are more easily influenced by the researcher's personal biases and idiosyncrasies.

As it was discussed earlier in this chapter that the selection of a research method depends on the problem the researcher is after, some of the problems dictate the research method, and the researcher has no choice to select. So the only option in this situation is know the weaknesses and try to overcome come during the research journey. Also, if possible triangulation approach is meant to compliment the weakness of one method with the strengths of the other.

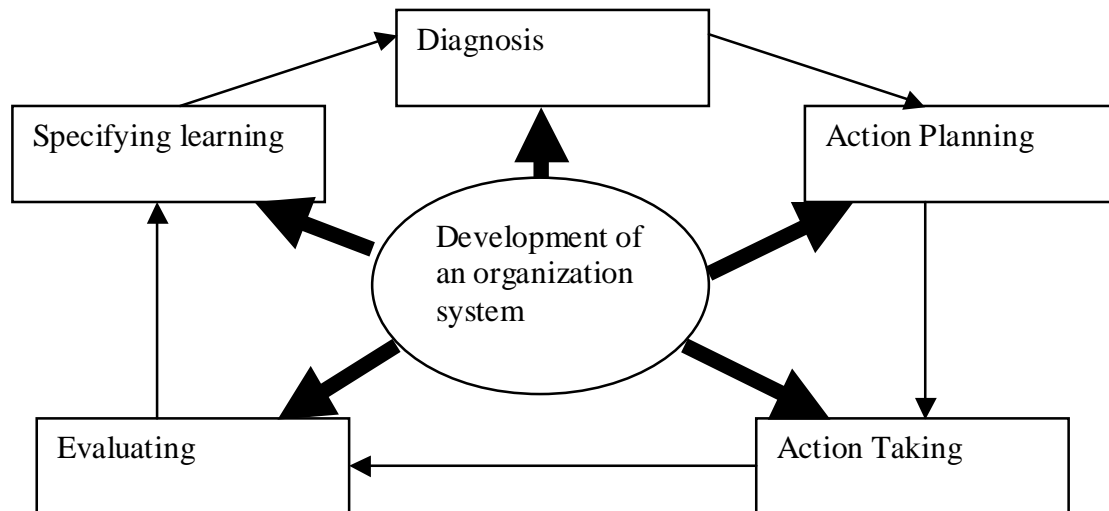
6.4 Action Research

Action research was first developed from the work of Kurt Lewin and his associates in the 1946. Lewin, a social psychologist, was concerned with solving social problems by applying social science knowledge. According to Rapoport (1970: 499), '*Action Research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework*'. The main important concern in pursuing action research arises from the inherent need for close collaborations between the different cultures of the managerial and academic worlds. The collaboration gives rise to concerns about whether the aims of the research study will be concerned mainly with problem-solving for the particular organization, or with producing theoretical generalizations for the wider community (Gill, 1986). Also (Elliot, 1991) defined action research as the study of a social situation with a view to improving the quality of action within it. Action research involves a planned intervention of the researcher into a naturally occurring event. The processes of action research were described as being iterative in nature, as follows (Dickens and Watkins, 1999):

1. Starts by the identification of the problem by either the organization or the researcher, then
2. Joint diagnosis of the problem is performed.

3. Planning the actions required to solve the problem,
4. Performing the actions identified in the step above, and monitoring the results
5. Evaluating the results

Figure (6-5) shows the how the above steps are related and their sequence in the process of action research.



(Figure 6-5: The Action Research Process, source: Susman, 1983)

Therefore, action research is a cyclical learning process that aims at producing acceptable and beneficial results to both the researcher and the client organization. In action research study, the findings are jointly reviewed by the client and the researcher, when fresh problems are likely to emerge, and the problem solving sequence, shown in Figure 6-5 above, recycled. The learning from the findings and the research process is generalized for the wider knowledge.

Gummeson (2000) argued that action research is the most demanding and far-reaching method of doing case study research. It was viewed as a form of problem solving approach where practitioners cooperate with researchers (Cooperrider and Srivastva 1987). The characteristics of action research were defined as follows (Gummeson, 2000): action researchers take action in solving real world problems; it involves two goals solving a problem and contributing to the knowledge and this

requires the researchers to play a dual role similar to that of management consultant and an academic researcher at the same time; it requires cooperation between the client and the researcher because of its interactive nature; the understanding of the problem area that is developed during an action research aims to be holistic and recognize complexity; action research is a method of understanding, planning and implementing change; the researcher needs to understand and act in a professional ethical framework and values and norms; it can involve all data collection methods but with the involvement of the researcher; it is essential for the researcher to understand the corporate environment and the conditions of the business; and management action research needs to be conducted in real time and its paradigm requires quality criteria.

In action research, the researcher works in close collaboration with a group of participants to improve a situation in a particular setting. The researcher does not 'do' research on the participants; however, work closely with them as a facilitator to improve the situation (Dawson, 2002). Then, Dawson (2002) went on to specify that action research used in areas such as organizational management, community development, education and agriculture.

Authors such as: Aguinis (1993); Baskerville and Wood-Harper (1996); Checkland and Holwell (1998); Eden and Huxham (1996); Greenwood and Levin (1998); Gummesson (2000); Heron (1988); Reason and Rowan (1981); Riordan (1995); Susman and Evered (1978) all studied the question 'how can action research be considered scientific?' through articulated the epistemological foundations of action research and compared them with those of the scientific methods. According to Coghlan and Brannick (2001) action research seeks to answer three major questions: What happened? This involves the relating of good story; how do you make sense of what happened? Involves detailed reflection on what happened; so what? This aspect deals with the extrapolation of a good knowledge or theory from the reflection on the story. The rigor of successful action research lied on how data are gathered and evaluated, and how events are questioned and interpreted through its cyclic phases (Coghlan and Brannick, 2001).

Susman and Evered (1978) identified four types of action research, as follows: (1) Diagnostic: the researcher is involved only in collecting the data and then feeding back the results to the client, (2) Empirical: researcher evaluates the options undertaken by the client system and feeds data back, (3) Participant: the diagnoses

and action planning phases are carried out in close collaboration of the researcher with the client, and (4) Experimental: the researcher and the client collaborate to set up the research and take actions in all the phases. The decision to select which type to use will depend on the main aim and objective of the research project, the resources available and the access provided to the researcher to collect the data in the client organization.

Rapoport (1970) presented three dilemmas related to this research methodology, which the researcher needs to be aware of and tries to resolve them:

- The first dilemma concerning the ethics of the researcher in terms of respondent protection, and awareness of personal and political motives. The researcher shall not become a captive of the organization being studied,
- The second dilemma concerns the conflict of goals that may arise between the demands of the research and the demands of the organization,
- The third dilemma concerns the changing focus of initiative from the client to the action researcher as the research progresses.

As a way to overcome these dilemmas, the researcher needs to view action research as an action learning loop, where the whole organization is part of this loop through the participation of all levels of staff from its senior management to its operational staff in the process of the research and lessons learned would then be disseminated to the wider employee base.

6.5 Mixed Methodology (Triangulation)

Both quantitative and qualitative research methods have common purposes of understanding or explaining the society and how single individual groups and institutions act and influence each other but deals with data in somewhat different ways.

Both quantitative and qualitative research methods can be used within the methodological process termed as 'triangulation' (Fellows and Liu, 2003). Triangulation is the use of a combination of methodologies in the same study to develop deeper understanding of the hypotheses (Rossman and Wilson, 1991). Triangulation was first developed by Campbell and Fiske in 1959 (cited in Jick, 1979) to ensure that the variance observed was that of the trait and not of the methods. Figure 6-6, below, illustrates the triangulation process. Creswell (2003: 21) recommend a mixed methods approach for data elicitation to overcome the weakness

of one method and compliment it with the other. Therefore, this methodology was used for this study.

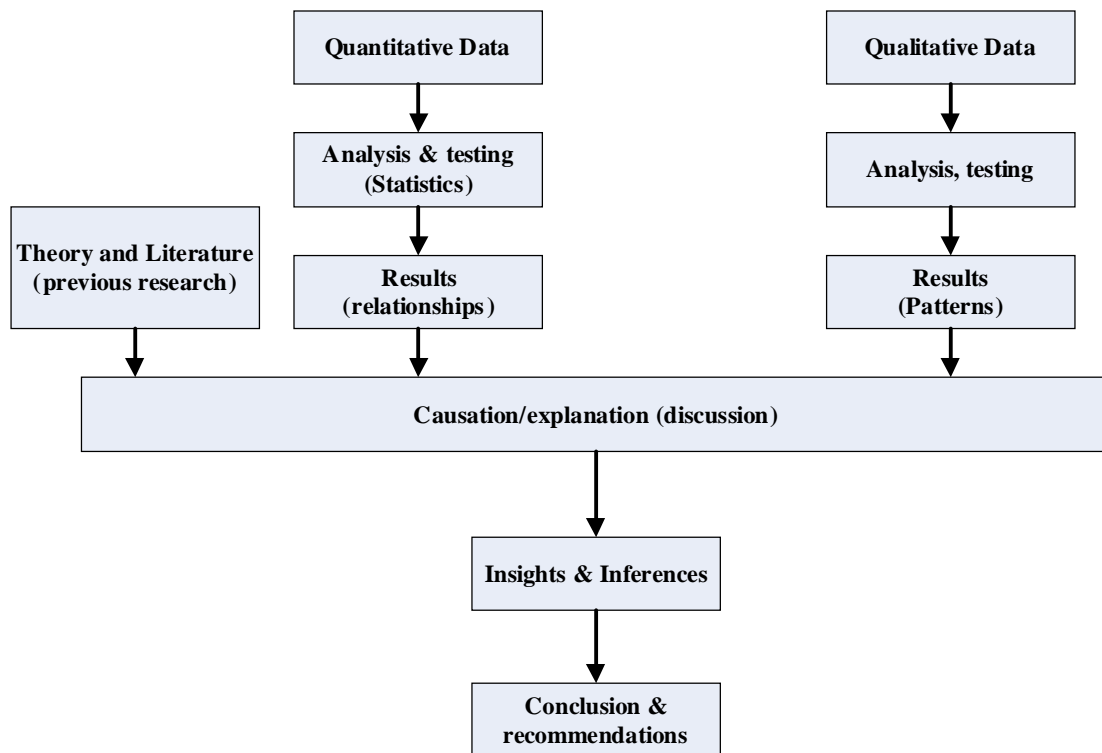


Figure 6-6: Triangulation of Quantitative and Qualitative Data (Fellows and Liu, 1997)

The triangulation approach to research could adopt any of the following sequences as proposed by Mile and Huberman (1994):

1. A steady and integrated collection of both qualitative and quantitative data as required developing understanding of the case under investigation.
2. A sort of two waves of surveys where both qualitative and quantitative data are collected in parallel with the first wave of data analysed to inform the nature of collection of the second wave of data collection.
3. Alternating the two kinds of data collection such that : qualitative (to explore the field) followed by quantitative (through survey questionnaires) and then qualitative to deepen and validate findings:
4. Start with quantitative survey to help point the researcher to phenomena of importance and then move to qualitative stage to develop a close-up,

strong conceptual understanding of how things work. Again followed by a quantitative experiment designed to test some results or hypotheses.

Creswell (2003) has developed different strategies to use combined quantitative and qualitative research methods, and these are as follows:

Sequential exploratory strategy: in this, the researcher starts the data collection using either quantitative or qualitative, then analyze the data. For example, if the researcher decided to start with a quantitative data collection approach, then quantitative data analysis, after that would start the qualitative data collection, followed by data analysis, finally results from analyzing the data collected from both methods would be interpreted and discussed.

Concurrent triangulation strategy: if the researcher started with a quantitative data collection method, then moved directly to quantitative data analysis, whilst at the same time doing the same approach for qualitative data (i.e. qualitative data collection and analysis), finally, he compared the results from both analyses.

Concurrent sequential strategy: in this strategy, the research method was chosen to be qualitative, then within it, quantitative method was used, and finally results were analyzed.

As it is for any methods, it has its pros and cons, triangulation method has. Johnson and Onwuegbuzie (2004) suggested the following strengths: words, pictures, and narrative can be used to add meaning to numbers, and numbers can add precision to words, pictures and narrative, can benefit from the strengths of both quantitative and qualitative methods, researcher can generate and test a grounded theory, can answer more broader and complete range of research questions, the researcher can overcome the weakness of one method by the strength of the other, can provide stronger evidence for conclusion through convergence and corroboration of findings, can be used to increase the generalizability of the results, qualitative and quantitative researches when used together produce more complete knowledge that informs theory and practice.

Also, Johnson and Onwuegbuzie (2004), identified weaknesses, such as: can be difficult for a single researcher to carry out both qualitative and quantitative research, especially if two or more approaches are expected to be used concurrently; it may require a research team, researcher has to learn about multiple methods and approaches and understand how to mix them appropriately, methodological pursuits contend that one should always work within either a qualitative or a quantitative

paradigm, more expensive and time consuming, some of the details of mixed research remain to be worked out fully by research methodologists (e.g., problems of paradigm mixing, how to qualitatively analyze quantitative data, how to interpret conflicting results).

Comparing the strengths of the triangulation method with its weaknesses, it is believed that the strengths outweigh the weaknesses. Because, using this approach would provide strong evidence of the conclusion through cross checking the data.

6.6 Criteria for valid research

A researcher needs to understand what makes a good piece of research? The main criteria are that it has to contribute to the knowledge by lifting understanding to a new level. To achieve this aim, the researcher should carefully set the right strategy, which in terms determines the data collection methods, the sample, and the validation and confirmation techniques of the findings.

Miles & Huberman (1994) suggested objectivity, reliability, internal and external validity and utilization or application, as the main criteria for a valid research. The first four criteria are important during the research execution process and the last criterion deals with generalizing the findings of the research which plays a great deal to the benefit of research to the general knowledge. The generalization process in quantitative research depends on the sampling technique adopted during research process.

The following methods of sampling have been proposed by Roberts *et al* (2003):

- **Simple random sampling:** A random number is selected randomly from a table, or from a computer based.
- **Systematic sampling:** The sampling fraction is determined by the sample size for instance, if the sampling fraction is 1 in 'n', this means select out of every 'n' of the population.
- **Stratified sampling:** Ensures that the sample contains the same proportion of people with a particular characteristic as in the population.

- **Quota sampling;** It is widely used in interview surveys, where the interviewer has to interview a certain number of people (quota) within a given group.

- **Multi-stage sampling:** Used when there is a requirement for a tiered structure and samples should be taken at each level.

- **Cluster sampling:** Is used to select a particular cluster or group of total sample, but then everybody in the cluster is interviewed.

In general, research must address three types of audiences: the researcher, those who come to know about the research, and whomever or whatever is studied. This simply means that for any valid piece of research should introduce a change in one way or another to these three audiences.

6.6.1 Verification of the Findings

After the analysis of results and discussion of findings phases, the researcher needs to verify and validate such findings for generalization. Checking the feedbacks of the respondents or informants is one method for verifying findings as it is assumed that they are the main repository of the relevant knowledge and hence would be in a better position to comment effectively on the findings of the research. It has been found that there are two methods of verifications or validities in the literature as follows (Punch, 2000 and Sekaran, 1992):

- (i) **Internal:** This involves the researcher to check and question the findings to ensure that they make any sense.
- (ii) **External:** It involves the process where the researcher identifies settings to help test the findings. Example would be asking external experts to comment on a model or implementing the model in practice.

The selection between the two methods will depend heavily on the availability of the resources and time.

Sekaran (1992) suggested eight types of validity tests as shown in Table 6-1, next page.

(Table 6-1: Validation tests **Source:** Sekaran (1992 pp 172)

Validity	Description
Content validity	Does the measure adequately measure the concept?
Face validity	Do "express" validate that the instrument measures what its name suggests it measures?
Criterion related validity	Does the measure differentiate in a manner that helps to predict a criterion variable?
Concurrent validity	Does the measure differentiate in a manner that helps to predict a criterion variable currently?
Predictive validity	Does the measure differentiate individuals in a manner as to help predict a future criterion?
Construct validity	Does the instrument tap the concept as theorized?
Convergent validity	Do two instruments measuring the concept correlate highly?
Discriminate validity	Does the measure have a low correlation with a variable that is supposed to be unrelated to this variable?

6.7 Models

After the data has been analysed and findings verified, the researcher needs to present such data in a simplified picture. Ahadzi (2004: 122) defined model as '*means of providing an understanding of something that cannot be visualized or studied as a whole and could therefore be described as a simplified picture of part of the world so as to explain and appreciate the world, the essence of which is to idealize and simplify the problem so as to enable one to observe or predict a phenomenon or occurrences*'. From the definition, it is clear that models are the products of the research journey, which communicate the benefits of the research to the public.

Raftery (1998) identified four types of models: Conceptual model, iconic model, analogue model and symbolic/mathematical model. The difference between the models lies in the level of abstraction.

The conceptual model presents the variables and how they are related and often presented as flow-charts. The Iconic model presents the real picture in a scaled

manner, examples would be Architectural models. Analogue models are like cash flow curve. The most abstracts of all models are the symbolic or mathematical model which tends to be related to quantitative analysis. Examples of symbolic or mathematical models would be linear or non-linear regression models. The model that will be built under this research project lies under the conceptual type model, because it presents the relationship between strategic planning and implementation utilizing project management tools and techniques.

The building of a model involves a thought process that starts with defining the objective functions; then identifying constraints, independent variables and parameters; propose relationships; test the model and re-define constraints, if needed before deciding the final form (Raftery, 1998). Figure (6-7) graphically presents the steps.

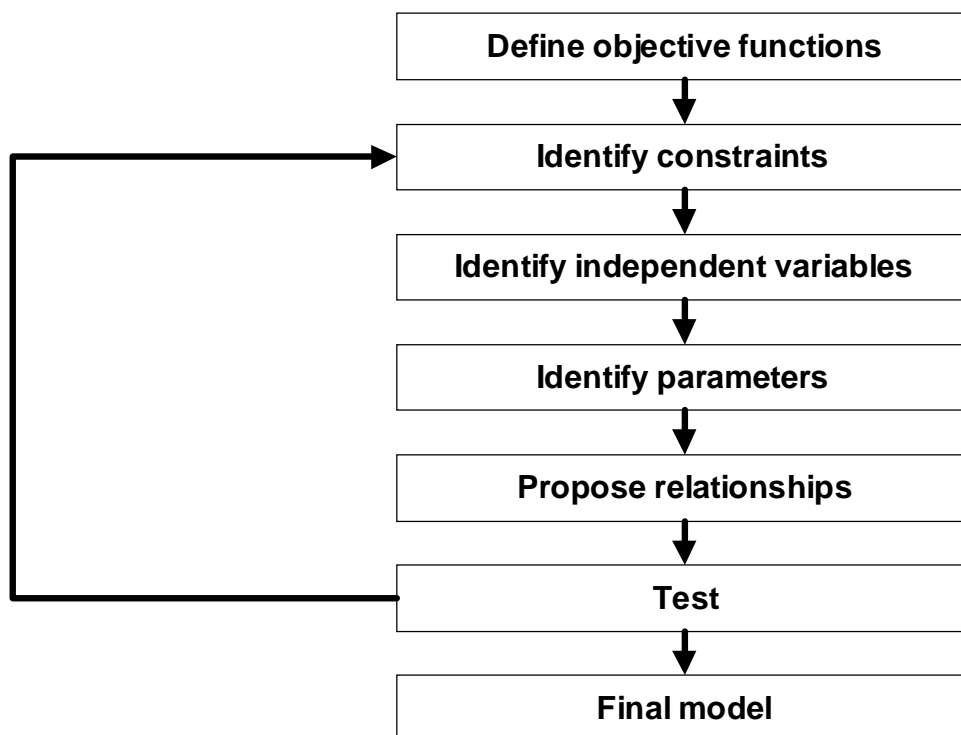


Figure 6-7: Model building procedures (Raftery, 1998)

Linking the above steps with the EPMM model building, it is evident that the process was followed. For example, the identifications of the objectives, the constraints and the variables were done through the literature review and data collection methods. The conceptual model was built, then tested and verified, which coincide with the steps in the process.

6.8 The Chosen Research Methodology

So far this chapter has discussed all the different research methodologies, their advantages and disadvantages. Also, the chapter discussed the basic criteria for a valid research. This section will describe the chosen research methodology, the various data collection methods and the reasons behind the selection.

As defined earlier, action research involves an interaction between the researcher and the practitioners into some social setting, such as an organization. The effect of such interaction are monitored and evaluated with the aim of producing valuable consequences that not only contribute to existing knowledge but also help to resolve some of the practical concerns of the people in the research organization (Gill and Johnson, 2002). The selection of a research strategy depends on the research problem, which is related to the availability of funding, ease of access to the data sources, and whether the outcome produced is publishable or not?. These criteria were all taken into account together with the main objective of the research, which was to develop and test an Enterprise Project Management Model (EPMM). The EPMM will be used to achieve corporate strategic objectives by aligning implementation processes with strategic planning processes in Oman Telecommunication Company (Omantel), action research methodology was selected that used both quantitative and qualitative data collection methods. This approach can be supported by Eisenhardt (1989). Eisenhardt (1989: 538) explained the benefits of using a mixed method as the combination of data types can be highly synergistic. Quantitative evidence can indicate relationships which may not be salient to the researcher. It also can keep researchers from being carried away by vivid, but false, impressions in qualitative data, and it can bolster findings when it corroborates those findings from qualitative evidence'. Also, the combination of methods will allow flexibility to the researcher, and will enhance his/her skills. Also, for Raftery *et al* (1997: 294) '*the field of construction research is, it seems to us, too wide and diverse to allow the adoption of the simple mono-method approach*', and they preferred a multi-method approach to research.

The reasons behind the selection of an action research methodology were as follows:

- The researcher is part of the research organization and has full access to the information,
- The problem that the research tries to address is practical in nature,

- Implementation is required during the research period to test the new research model,
- Much of the research data was based on human interaction like strategic planning process and project management process,
- Member of the organization had to be involved to gain commitment to the research,
- External factors such as: liberalization of the market and privatization of the telecommunication industry demands that the case study organization undergoes internal changes, which in itself provides good environment for the research.

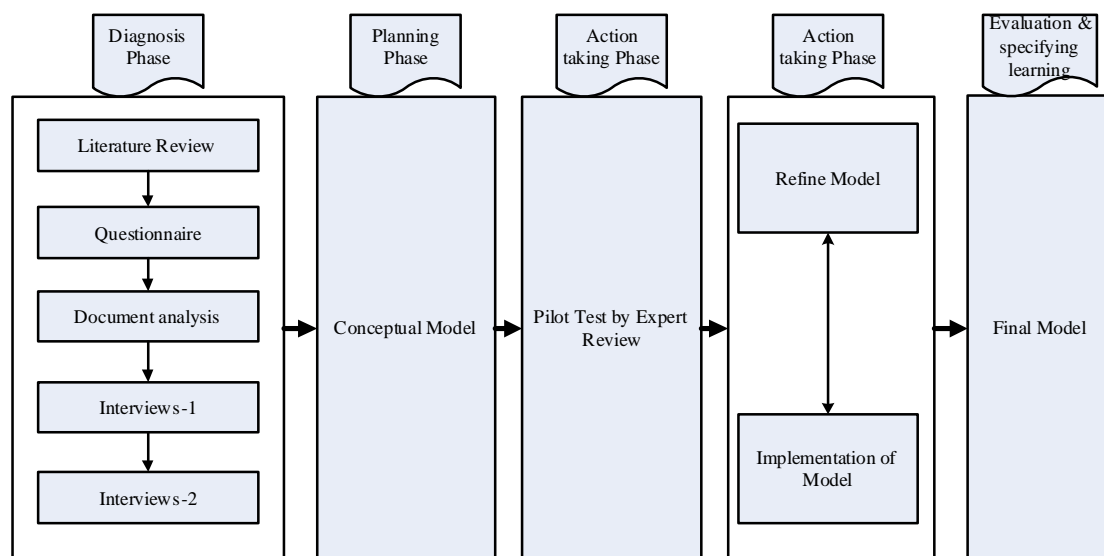


Figure 6-8: The Research Methodology in Action ,

Because action research methodology involves many forms of data collection methods due to the web of activities surrounding the organizational action learning that is achieved through the participants (such as clients, sponsors, directors and managers) and issues (such as organizational politics, problems and opportunities) (Cunningham, 1988). Therefore, interactive holistic data collection methods are necessary, as suggested by Reason (1988):

- Participatory and holistic knowing is a move from distance and separateness of objectivity,
- A shift from objective consciousness to a quality of awareness called subjectivity where use our experience as part of the inquiry process,

- Knowledge forms itself in action rather than existing reflection.

Given the nature of the problems revealed in the research organization and the theoretical concepts analysed in the previous chapters, the action research used in this study, went through the established phases, as depicted by Susman (1983), and shown in figure (6-8). The following is a detailed description of each phase:

- 1- **Literature Reviews (Diagnosis Phase):** Cohen and Manion (1994) argued that literature review reveals the established and generally accepted facts of the situation being studied and assists in understanding the theories or models that were used by other researchers in the field. Therefore, an extensive review was conducted in the areas of: corporate strategy in the context of telecommunication industry, organizational project management, project management processes, project performance management, organizational learning and knowledge management, and change management to develop the conceptual framework of the theory and arrive at the literature gap. Also, this phase defined the research question/hypotheses.
- 2- **Data Collection Methods to support research need and map existing processes (Diagnosis Phase):** the following data collection methods were used: **Survey Questionnaires:** sent to the team members from both the sponsoring organization and the contractors/suppliers participating in projects; **Document review and analysis:** to view the nature of the existing project management processes and gain an understanding of the flow of such processes; **Interviews:** two types of interviews were conducted: the first one with major stakeholders in the project management process within the research organization and the second was with strategic planning heads outside the research organization to gain an understanding of the existing project management processes and how strategies are being developed and implemented in various project-based organizations.
- 3- **Develop conceptual EPM model (Planning Phase):** the findings from both the literature review and observations from the questionnaires and interviews were analysed and used as input to develop conceptual model. This phase will be discussed in Chapter eight
- 4- **Validate the EPMM (Action-Taking Phase):** testing of the model by applying it to one major project within the research organization, the project used the new model during the implementation phase. Also, EPMM was sent

to experts in the field for further validation. The experts' selection was based on the position of the individual and/or the publications in the fields of project management and telecommunications industry. This will be the subject of Chapter nine.

- 5- **Update the EPMM (Evaluate & Specify Learning Phases):** the findings from the case study project and experts' opinions were analyzed, then, the results were used to update the model and arrive at the final form.

6.8.1 Questionnaires Survey

The survey questionnaire approach is a popular way of collecting data as a means of understanding and generating factual and attitudinal information. Survey questionnaire as a data collection method is a popular way of collecting data for testing theory, and is usually conducted for subjects that are difficult to study by either direct observation or experimental manipulation. Lee (2002) found two types of questionnaires: *' the first is the descriptive /enumerative survey that pre-possesses inferences about a whole population from a representative sample, for instance censuses and opinion polls; and the second is the analytic/relational survey, which is used to examine differences between variables and is used to test specific hypotheses'*. The second type was used in this research study. The main purpose of the survey questionnaire was to support the research need and test the hypothesis of *'the research organization does not follow standard project management processes to execute its strategies'*. There are two approaches for data collection: survey questionnaires and interviews. The two are different in the way questions are administered by the researcher. In survey questionnaires, the questions are self-administered, whereas, in interviews, the researcher administers the written questions. Both methods were used in this research study.

The main objective of the questionnaire was to assess the project management processes in the research organization and other telecom operators and vendors.

6.8.1.1 The Sample

The literature revealed many measures to be employed to achieve quality in the responses: the participants may be enthused by a reward, sponsorship, expenses, or a preliminary postcard. Dawson (2002: 47) described the sampling techniques in both quantitative and qualitative research methodologies as: *'in quantitative research, it is*

believed that if this sample is chosen carefully using the correct procedure, it is then possible to generalize the results to the whole of the research population. For many qualitative researchers however, the ability to generalize their work to the whole research population is not the goal. Instead, they might seek to describe or explain what is happening within a smaller group of people. This, they believe, might provide insights into the behaviour of the wider research population, but they accept that everyone is different and that if the research were to be conducted with another group of people the results might not be the same.' This research study used the random sampling techniques where, project team members from the research organization, operators and vendors were chosen from the organization structure of each organization. In addition to the research organization, the sample covered four vendors and three operators in the Middle East.

6.8.1.2 Design of the Questionnaire Survey

Hague (1994) considered steps to be taken to avoid bias and ambiguity of the respondents in answering the questions posed in a questionnaire, these steps are namely: ensure that the question is without bias (e.g. you agree that the company has an excellent product range?), avoid jargon or shorthand, and ambiguous words, do not use sophisticated or uncommon words, make the question as short and simple as possible, make the questions very specific, make sure that the question and answer do not conflict (e.g. do you care what brand you buy or would you buy any brand?), keep the number of meaningful words to a minimum (e.g. what motivates and inspires you in the selection_or specification of a new supplier?), avoid negative questions, avoid hypothetical questions, keep questions within the respondent's capabilities, make it easier for respondents to answer questions, all for 'others' choice in fixed response questions, and ensure that fixed responses do not overlap. These steps were utilized to construct the survey questionnaire for this research.

The questionnaire survey went through piloting process, where it was reviewed by two members of the project management team in the sponsor organization (one was Project Management Expert and the second one was the Technical Advisor). The changes that resulted from the piloting process were: (1) the change from open-ended type questions to multiple choice types and (2) the change that affected the number of choices from three (Agree, Disagree, or Uncertain) to six (Strongly disagree, Disagree, Strongly agree, Agree, Uncertain, or N/A) for the questions in part four, to

allow the respondents the freedom to choose with more choices (details of the comments can be seen in **Appendix 1**).

The survey questionnaire was divided into four main parts: part-1: was about general information like name, company and department; part-2: was about the respondent's specific information; parts-3 & 4: was about project management processes and the respondent's assessment of the project management processes in his/her own organization. The actual questionnaire is shown in **appendix 1**.

6.8.2 Document Analysis

Document analysis approach was used to investigate and establish the existing process for implementing projects within the research organization. Documents such as progress reports, correspondence letters and time schedules for selected projects were reviewed to map existing processes for implementing projects. Also, document analysis was used to support the findings from the questionnaire survey about the maturity of the research organization in using project management processes. The documents that were analysed can be viewed in **Appendix 2**.

6.8.3 Interviews

Because the nature of data to be collected is qualitative in nature, and has to take the participants' views on the problem under investigation, thus interviews were selected as a data collection method. The interviews technique will allow the researcher to get closer to the participants and understand the way they perceived the issues under study. This was supported by Loosemore (1999: 555), when said that 'interviews are able to facilitate feedback through two-way communication'. The advantages of using interviews, as discussed by (Open University, 1979 and Smith, 1991), were as follows:

- Interviews are appropriate when questions are open ended,
- Interviews have better response rate when compared to survey questionnaires,
- Interviews can give a better explanation of the purpose of the study than a questionnaire survey; hence the cooperation with the researcher might be higher.

As mentioned earlier, there are two types of interviews conducted in this research: one type (Interviews-1, as in Figure: 6-8) conducted inside the research organization with

all the general managers and managers to understand the existing method of executing projects, and if they are linked to strategies or not. These interviews were semi-structured to allow for more flow of information, and they took place during the 2003 year. The unstructured interviews used because such type of interviews allows the respondents to speak freely about the issues under investigation that will provide more deep data to be collected. The unstructured interviews use open ended or open questions, and can be conducted at the beginning of any research to explore the subject area (Naoum, 1998).

The second type of interviews (Interviews-2, as in figure: 6-8), were semi-structured, and conducted with managers and heads working in organizations not within the telecommunication industry. The main aim of these interviews was to benchmark how strategies are developed and translated into actions, and whether a project management process was used as a tool to translate corporate strategies. The semi-structured interviews are more formal than the unstructured ones in that there are a number of specific topics around which to build the interviews. They use either ‘open’ or closed ended questions (Naoum, 1998). Merton and Kendal (1946) specified four features of the semi-structured interviews as follows:

- (1) They take place with respondents known to have been involved in a particular experience,
- (2) They refer to situations that have been analysed prior to the interview,
- (3) They proceed on the basis of an interview guide specifying topics related to the research hypotheses, and
- (4) They are focused on the respondents’ experiences regarding the situations under study.

Thus, semi-structured interviews were used for interviews-2 because the interviewees were known to have been involved in the processes of strategic planning and implementation in their respected organizations, and the interviewees were all from outside organizations, which required more formal type interviews to be conducted.

Table 6-2 and Table 6-3 show the profiles of the participants in interviews-1 and interviews-2 respectively. The functional managers interviewed in the sponsor organization are shown in the organizational structure with their reporting positions in Figure 2-5b.

Furthermore, Table 6-4 summarizes the advantages and the issues or problems encountered in the three data collection methods.

Table 6-2: Details of Interviews-1.

Interview	Job Function
Int. 1	Manager Procurement & Contracts
Int. 2	Manager, Services
Int. 3	General Manager, Finance
Int. 4	Senior Engineer, Fixed Service Unit
Int. 5	GIS, Expert
Int. 6	Strategic Planning Manager
Int.7	Manager, Information Technology
Int. 8	General Manager, Mobile Services Unit

Table 6-3: Interviews-2 details

Company	Industry	Interviewee (s)
Large construction (subsidiary of international firm)	Construction	Regional Manager (Int-1)
Oil & gas products and service stations (subsidiary of international firm)	Retail	Corporate Affairs & Branding and Communication Managers (Int-2)
International project management consultancy and training	Consulting Service	Senior/Managing Consultant (Int-3)
Liquefied natural gas plant	Oil and Gas	Finance Manager and Secretary of the Board (Int-4)
Bank	Financial Services	Deputy GM, Corporate (Int-5)
International telecommunication services' provider (Vendor)	Telecommunication Services	General Manager (Int-6)
Telecommunication operator	Telecommunication	Strategic Advisor (Int-7)

Table 6-4: Summary of the data collection methods used in this research,

Data Collection Method	Description	Advantages	Problems Encountered
Survey Questionnaire	Questionnaires were sent either by e-mail, or delivered to the respondents	Rapid data collection method, and allows the researcher to initially assess the existing situation in the research organization	Relies on honesty and the understanding of the respondent.
Documents Analysis	Company related documents like: project progress reports, time schedules etc.	Provided in-depth knowledge about the process of managing projects that was not possible to be obtained through the questionnaire	Not enough reports were found, which was caused by the lack of Processes
Interviews	Face-to face interviews, un-structured and semi-structured, with single participants at a time.	For Interviews-1, allowed the researcher to map the project management processes in the research organization, and for Interviews-2, benchmarked practices from different industries.	Not all interviewees were encouraged to answer the questions.

6.9 Summary

In summary, this chapter provided an important analysis of the different research methodologies that could be adopted for this study and their corresponding paradigms. The chapter started by presenting the debate on the use of Positivism and Interpretivism paradigms in research, and their applications in the construction management industry. It was clear that positivism related to quantitative research and interpretivism related to qualitative. The methodology used for this research study was mixed methodology. This reflected the nature of the problems identified and the philosophical perspective of the researcher. Moreover, both quantitative and qualitative methodologies were discussed with their advantages and disadvantages. The triangulation research methodology was also discussed, along with the criteria for a sound research. The remaining of the chapter, then, focused on the chosen research methodology, which was action research. The chosen data collection methods were questionnaire survey, document analysis and interviews. Based on the chosen data collection methods, this research was categorised to lie under the triangulation approach to research. The detailed framework for the research methodology was presented on figure 6-8. The next chapter, chapter seven, will discuss the results and analysis of the questionnaire survey, documents and the interviews, which will lead to the building of the conceptual Enterprise Project Management Model.

Chapter Seven: Results

7.1 Introduction

The previous chapter detailed the methodology by which the research was conducted in order to develop and test the Enterprise Project Management Model (EPMM). It was agreed, also, that different data collection methods were combined interactively in order to assess the current situation in the research organization and identify the need to develop the EPMM. The data collection methods combined a questionnaire survey conducted with participants from the sponsoring organization (Omantel) and outside organizations, a document analysis to map the current project management processes in Omantel, interviews, with both Omantel staff so as to gain a better understanding on the process of project management and with other organizations to benchmark the process of translating corporate strategies into operational actions.

This chapter will report the results of all the above mentioned data collection methods. The results are divided into three main sections, namely: (1) results from the questionnaire survey, (2) results from the document analysis, and (3) results from the interviews, then followed by a section on the discussion of the results for each method.

7.2 Results from the Questionnaire Survey

The questionnaire survey approach is a popular way of collecting data as a means of understanding and generating factual and attitudinal information, (Lee, 2002). According to Hoinville and Jowell (1978: 129) the following points have been shown to ensure high response rates, namely: (1) attractive presentation, (2) respondents asked to tick boxes rather than add information, (3) long questionnaires make use of sub lettering within question numbers, (4) instructions for completion were explicit, (5) more difficult questions were presented towards the middle and end of the questionnaire form, (6) wording used for each question was explicit, and (7) any additional information and/or cover letter were presented in a clear, concise manner. The above mentioned points were considered as part of the questionnaire survey for this study; since the response rate was 54%. Hoinville and Jowell (1978:131) mentioned that '*unsolicited mailed survey could on occasions, attract a 70% response rate but that it was more normal to attract around a 50% response rate*'. For this

study, the overall questionnaire response rate was 54%. A total of 81 completed questionnaires were returned (44 from the sponsor organization and 37 from the other organizations) out of a total of 150 questionnaires sent out. There are two methods that can be used to analyze data generated by questionnaire survey, namely: (1) descriptive statistics and/or (2) by using tests that allow statistical inference to be established. Atkinson *et al* (1997) concluded that descriptive methods are: measure of central tendency (e.g. mean, mode, median), and measure of spread of scores around the average (e.g. standard deviation); But, statistical inference tests measure variation between groups of data (e.g. t-test). The t-test is a parametric test which is used to compare the difference between the mean scores of two samples. It helps to answer the underlying question: do the two groups come from the same population, and only appear different because of chance errors, or is there some significant difference between these two groups? (Fred, 2002).

Both descriptive and statistical inferences methods were used to analyze the results from the questionnaire survey in this study. The main aim of the questionnaire survey was to serve as a scoping survey to support the research need through understanding the existing project management processes within the sponsor organization. The questionnaire survey was divided into four main parts: part-1: was about general information like name, company and department; part-2: was about the respondent's specific information; parts-3 & 4 were about the project management processes used and the respondent's assessment of the project management processes in his/her own organization. The sample of the questionnaire survey was project managers and engineers working in the sponsor and other organizations. The actual questionnaire is shown in **appendix 1**.

7.2.1 Descriptive Analysis

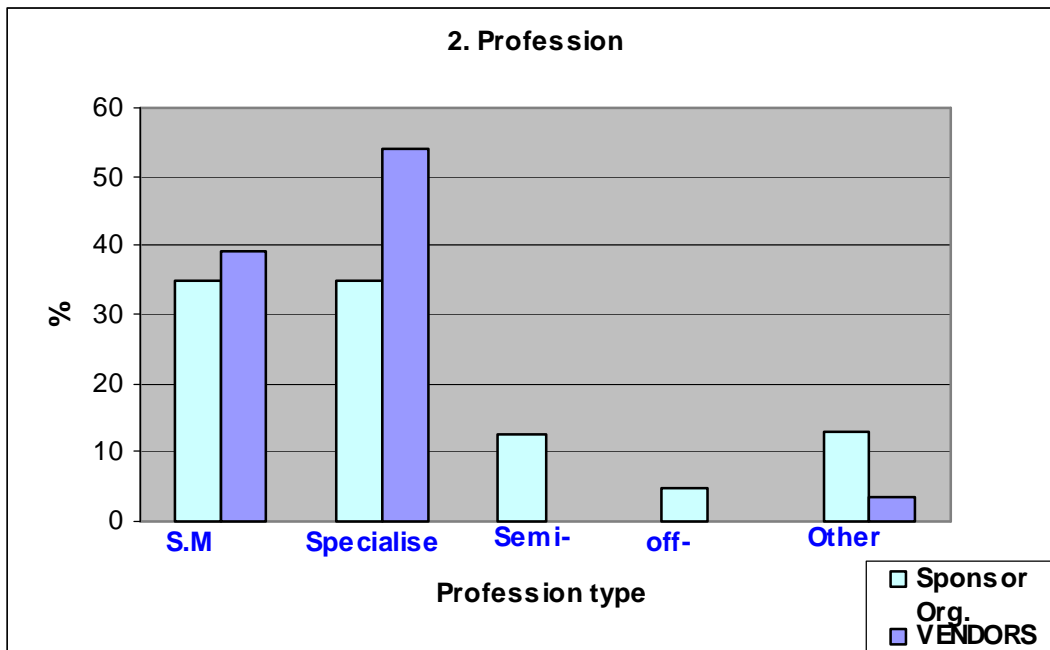
The charts below show graphically the results for each of the questions with brief description of the results in case of differences. Then, detailed discussions about the general findings from the survey questionnaire will be picked up in section 7.2.3. It is worth mentioning here that the following terms are used in the charts, and they mean:

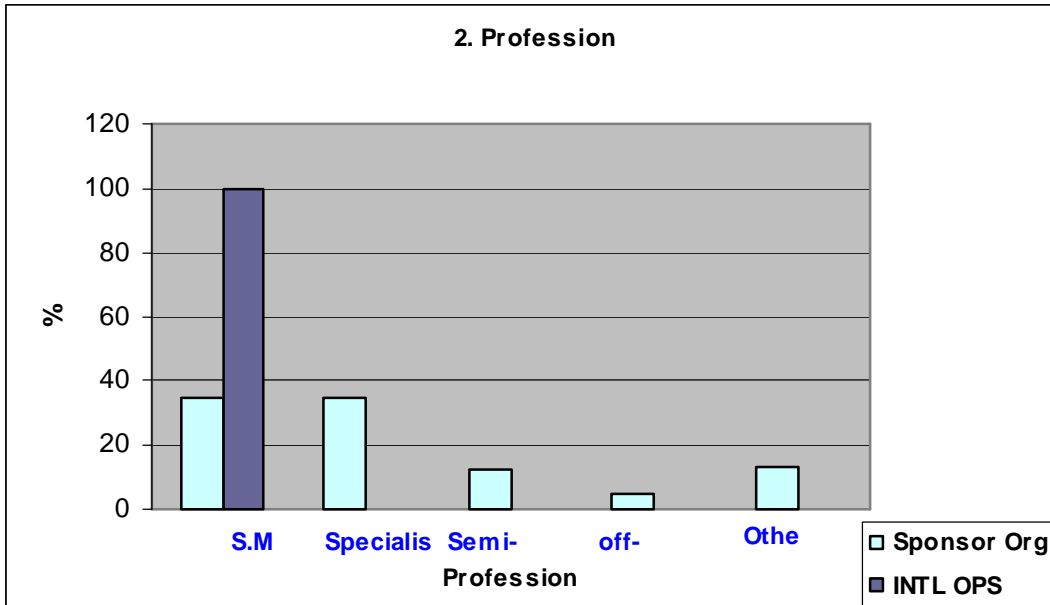
- **Sponsor Organization** refers to Omantel,
- **Vendors** mean equipment suppliers,

The education level in the sponsoring organization varied from secondary school to master, as compared to the international operators (noted in the charts as INTL OPS) and vendors are contractors involved with projects with the sponsor organization, which was between bachelors and masters.

Q2. Profession

- (1) Senior/Middle Manager (2) Specialized (3) Semi-Specialized
- (4) Office Worker (5) Others

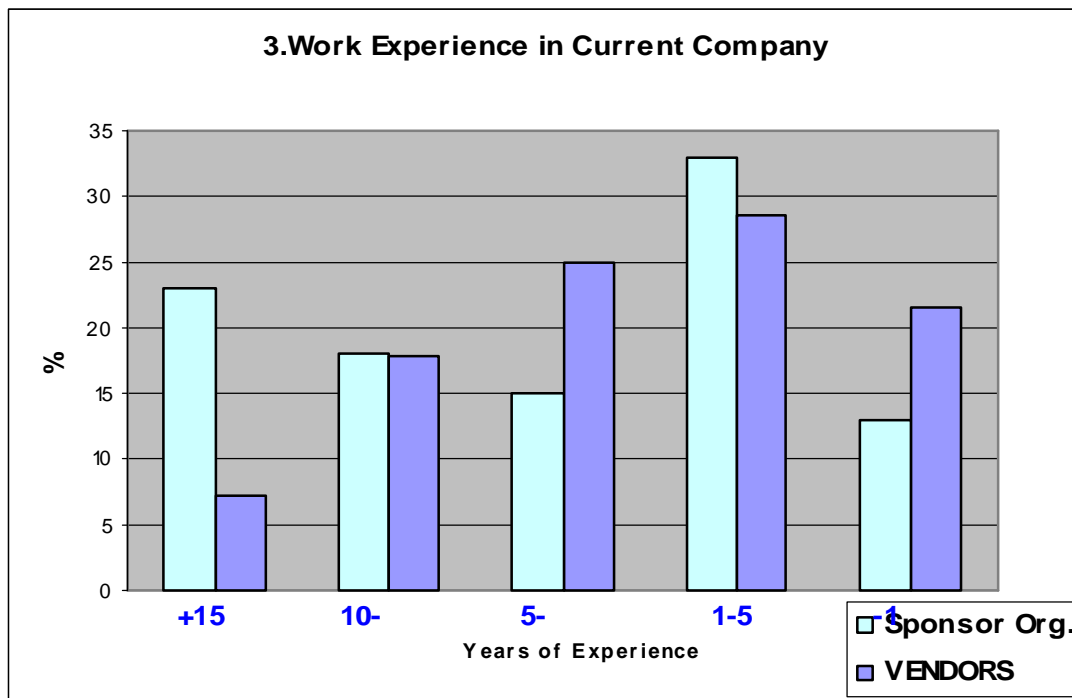


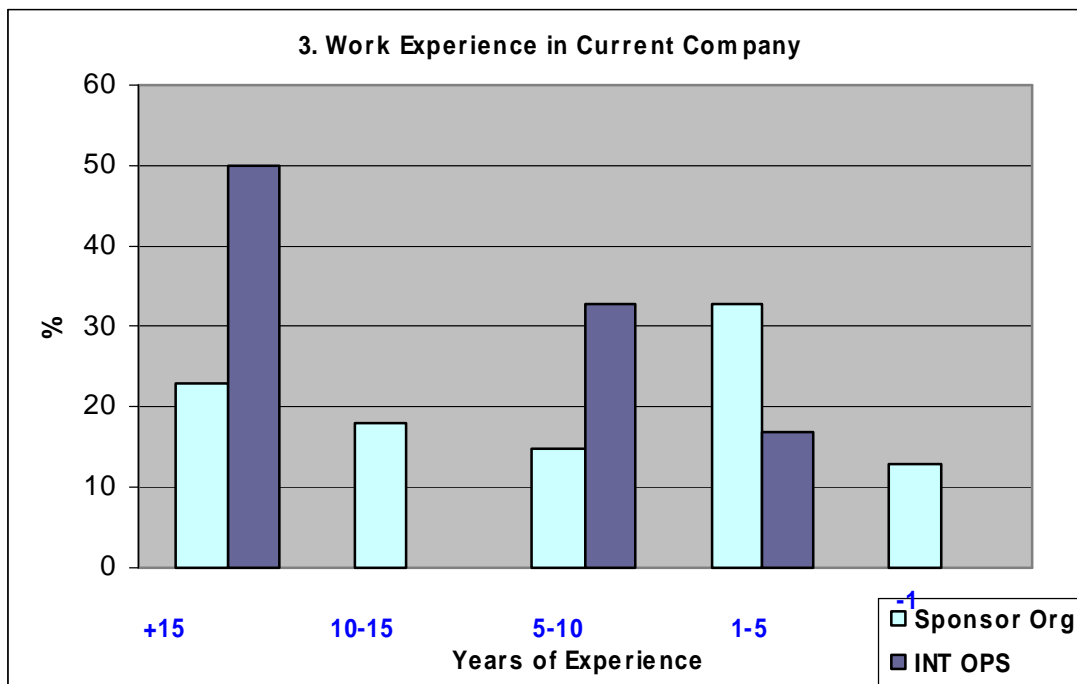


As seen from the above charts, professions, which mean the current job of the respondents at the time of answering the questionnaire, were spread over wider range in the research organization than other organizations.

Q3. Work Experience in the organization I currently work at

- (1) Over 15 years
- (2) 10 to 15 years
- (3) 5 to 10 years
- (4) 1 to 5 years
- (5) Less than a year

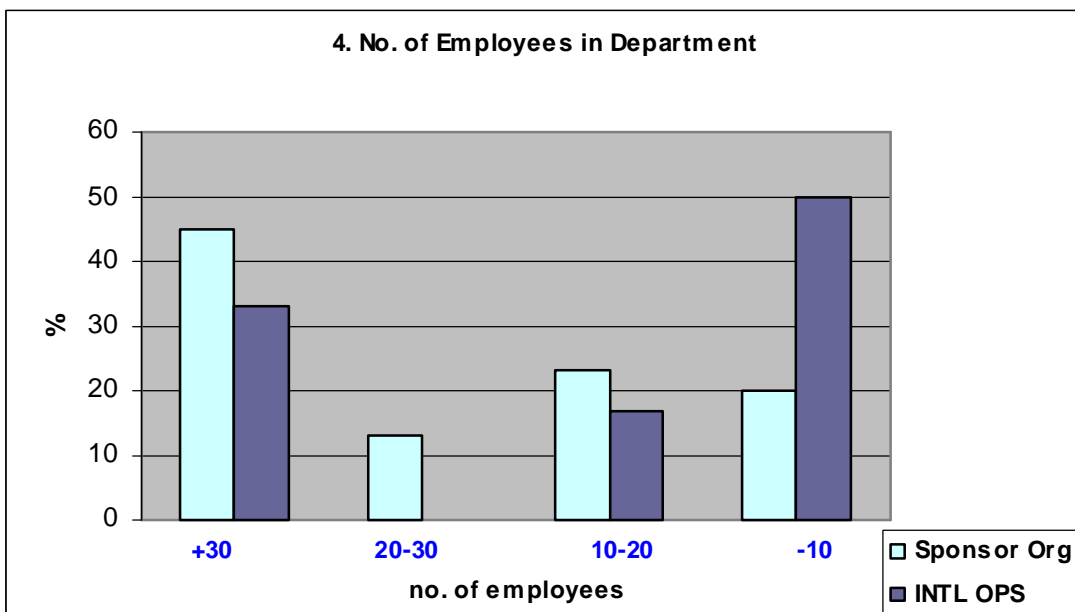
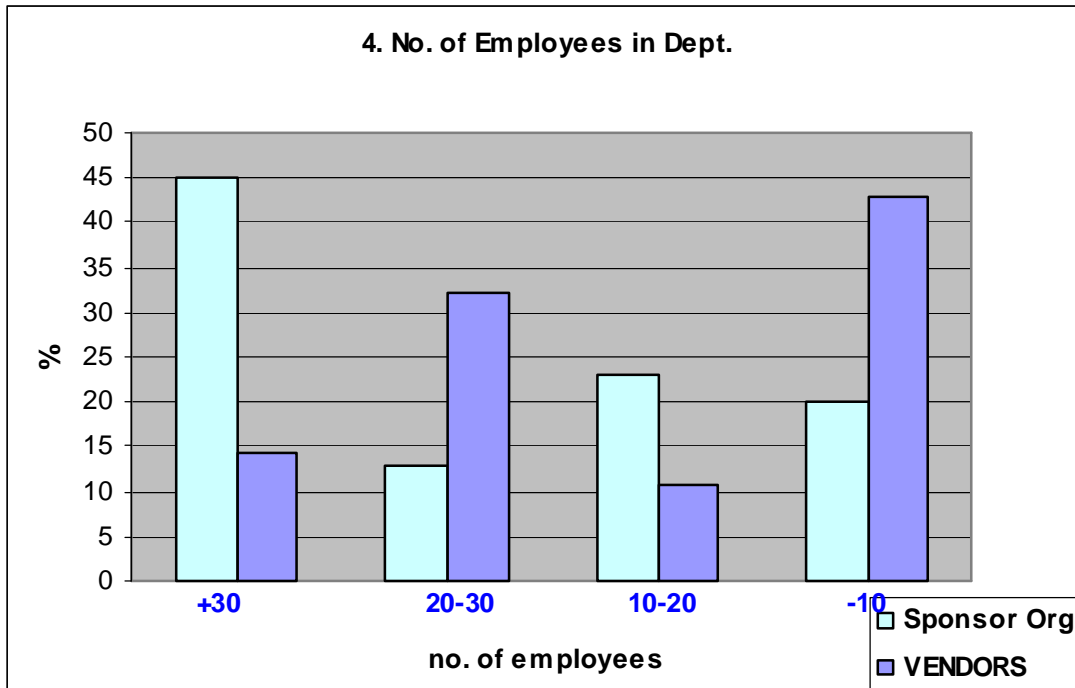




The majority of respondents from the sponsor organization were having between one to five years experience in the organization, and similarly for the vendor organizations. But for the international operators' organizations the majority of the respondents had more experience (more than fifteen years)

Q4. Number of employees in the department I currently work at

- (1) More than 30 (2) 20 to 30 (3) 10 to 20
 (4) Below 10



Results from Question four shows the majority of the respondents from the sponsor organization work in bigger functional departments as compared to other organizations.

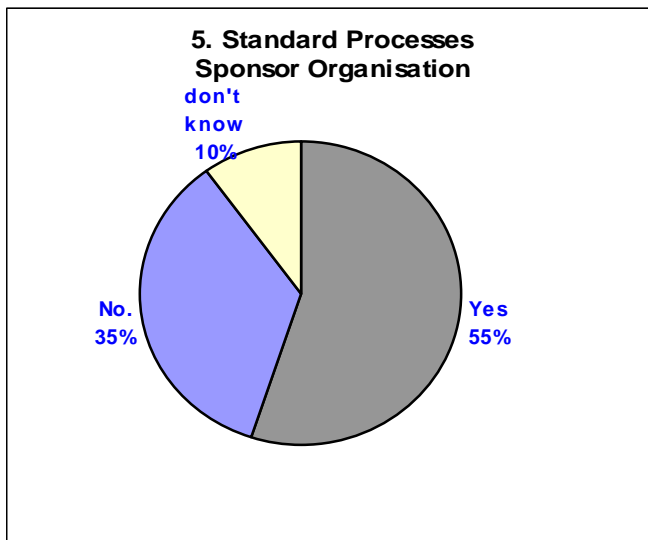
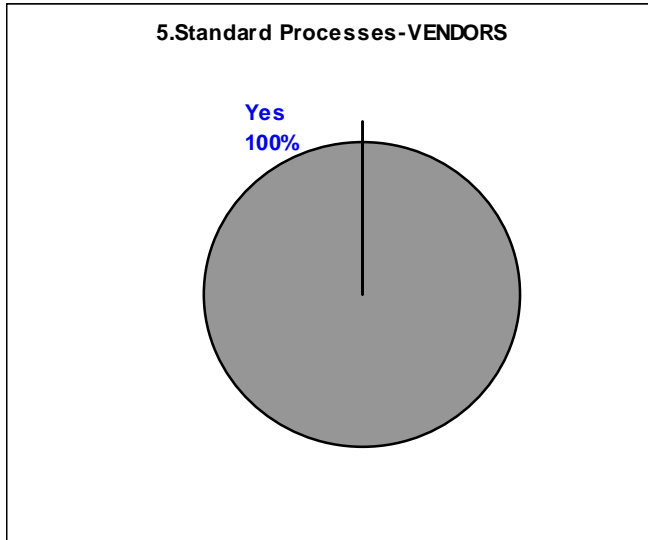
Section 3: Project Management Processes in Company

Q5. In executing projects, does your company follow a standard process?

(1) Yes

(2) No

(3) I don't know





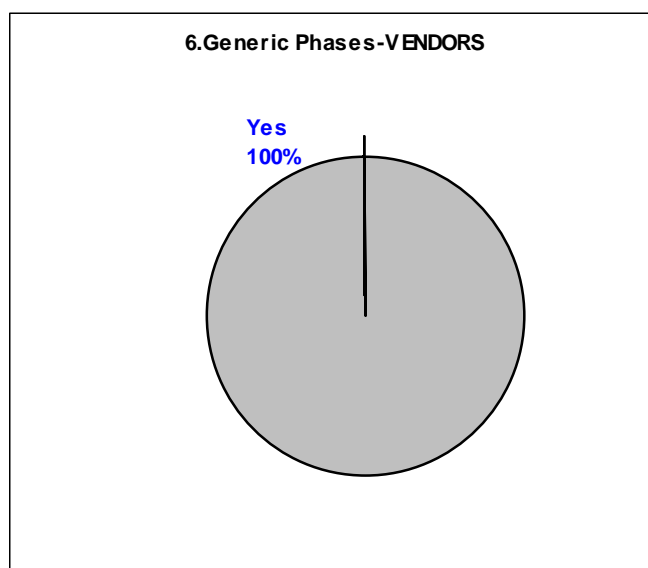
The results of question five indicated that whole the sample from the vendors and international operators were sure about the existence of standard processes and all projects where expected to go through such standard processes. However, the sponsor organization's participants were not confident about the existence of standard processes, and this was reflected in the answers, where only 55% answered 'Yes' and 35% answered 'No' and 10% answered 'Do not Know'.

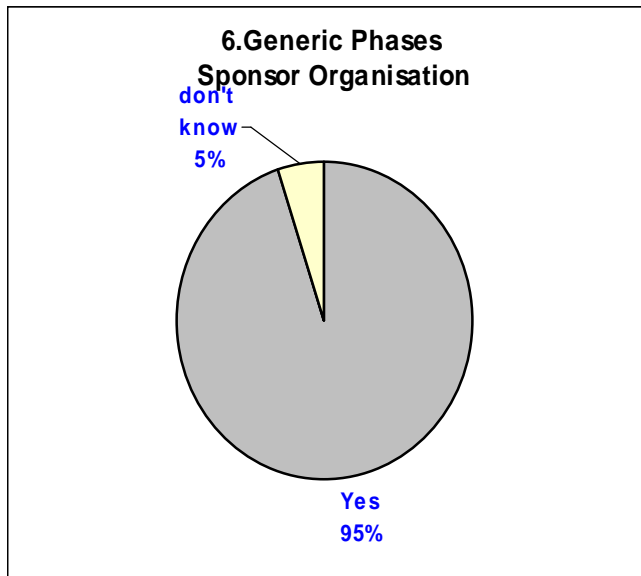
Q6. If yes, is the process divided into generic phases (example: initiation, planning, execution, controlling & closing-out)?

(1) Yes

(2) No

(3) I don't know





Similar to the results of question five, question six was asking about whether the process follows a generic phases or not? The results indicate that the responses from the sponsor organization varied as compared to the other organizations.

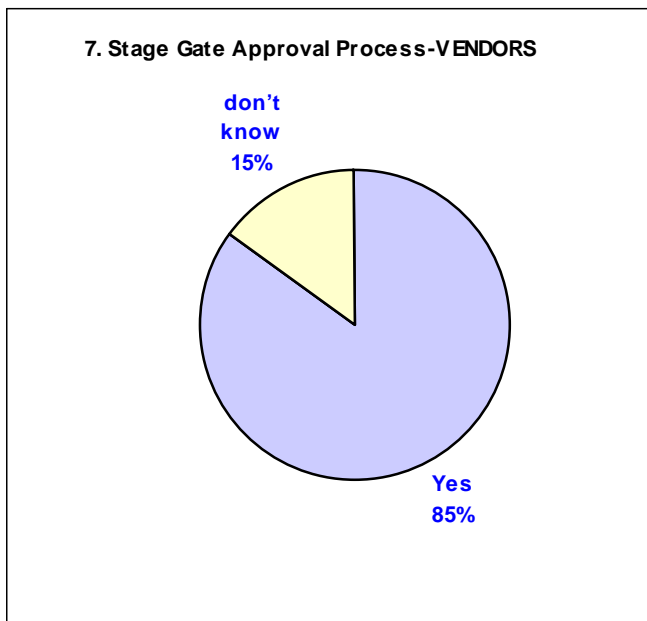
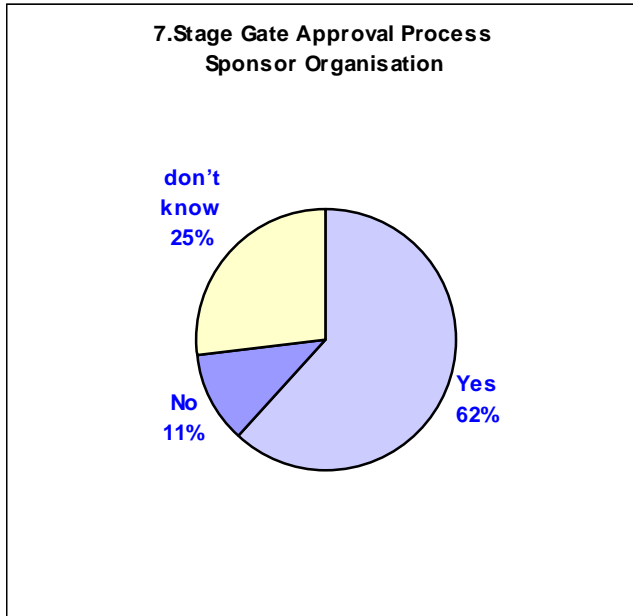
Q7. If your answer is "yes" in question No. 6, does the process follow a *stage-gate approval process?

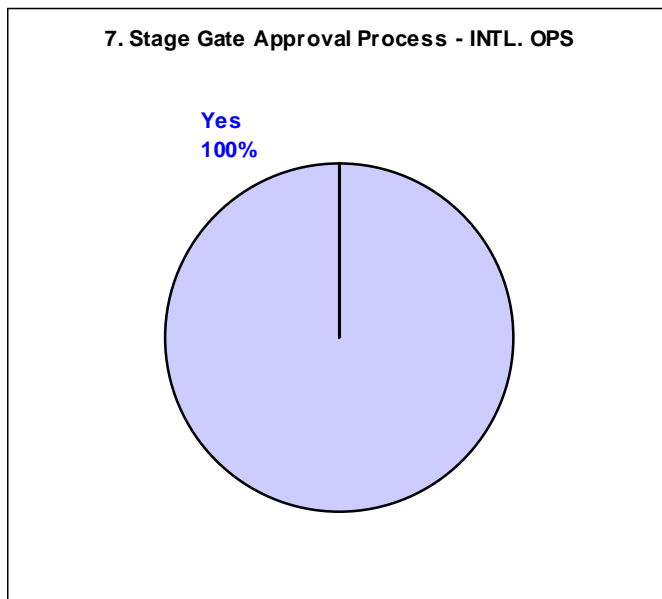
***[The gate will act as a review point to effectively utilize the resources and prioritize within portfolio projects]**

(1) Yes

(2) No

(3) I don't know





For question seven, the results show the participants from the sponsor organization 62% answered 'Yes', 25% answered 'Do not know', and 11% answered 'No'. All the respondents from the international operators' organizations answered 'Yes'. The vendors' organizations respondents answered 85% 'Yes' and 15% answered 'Do not know'.

Q8. To the best of your knowledge, please indicate the percentage of projects that follow a consistent project management process.

(1) 0 – 20%

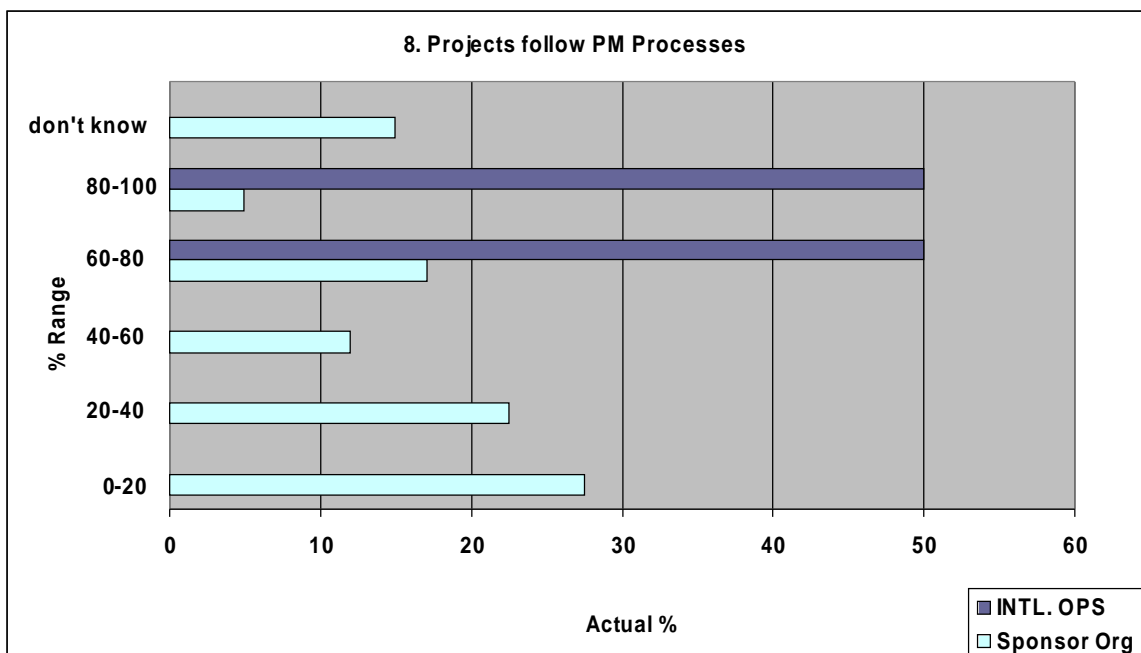
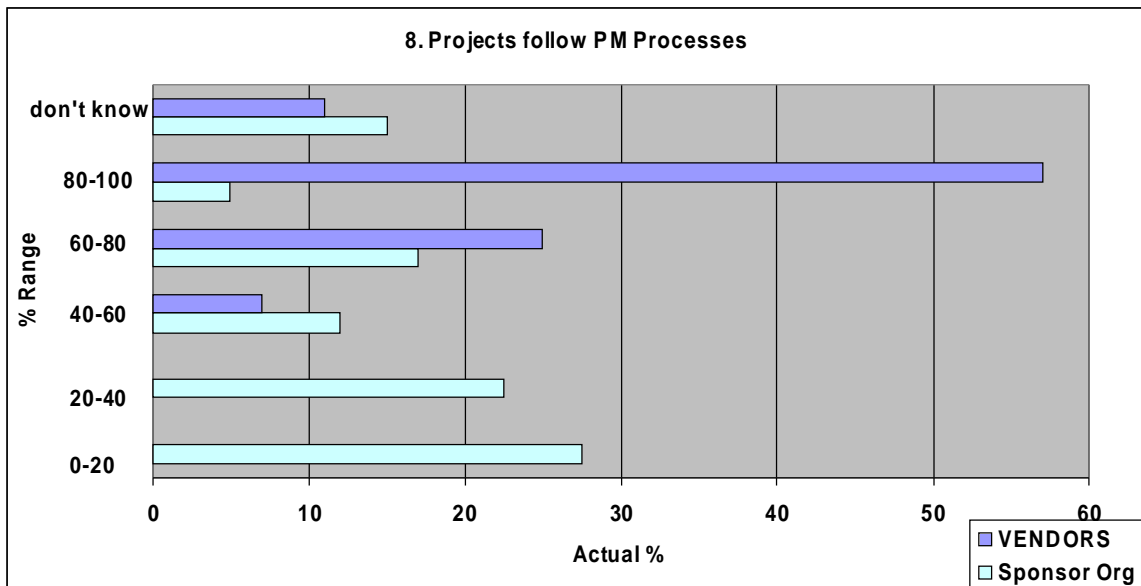
(2) 20 – 40%

(3) 40 – 60%

(4) 60 – 80 %

(5) 80 – 100%

(6) I don't know



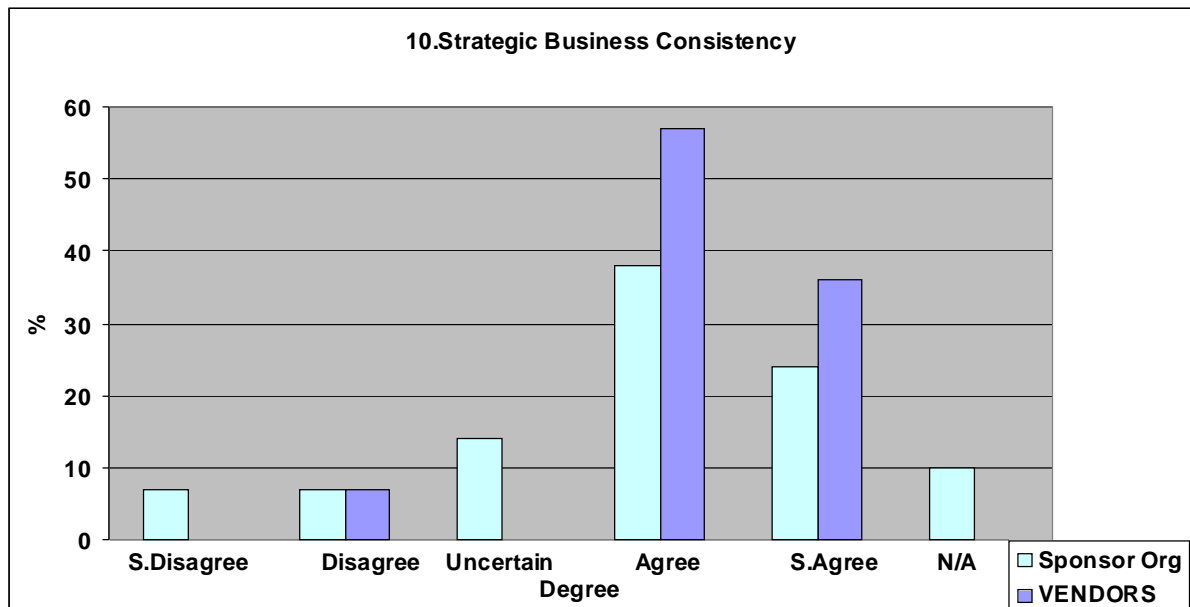
The percentage of projects that use project management processes varied considerably in the sponsor organizations as compared to other organizations. For the international operators' respondents, 50% believed that 80-100% of the projects follow standard PM processes and the remaining 50% believed that 60-80% of the projects follow standard PM processes.

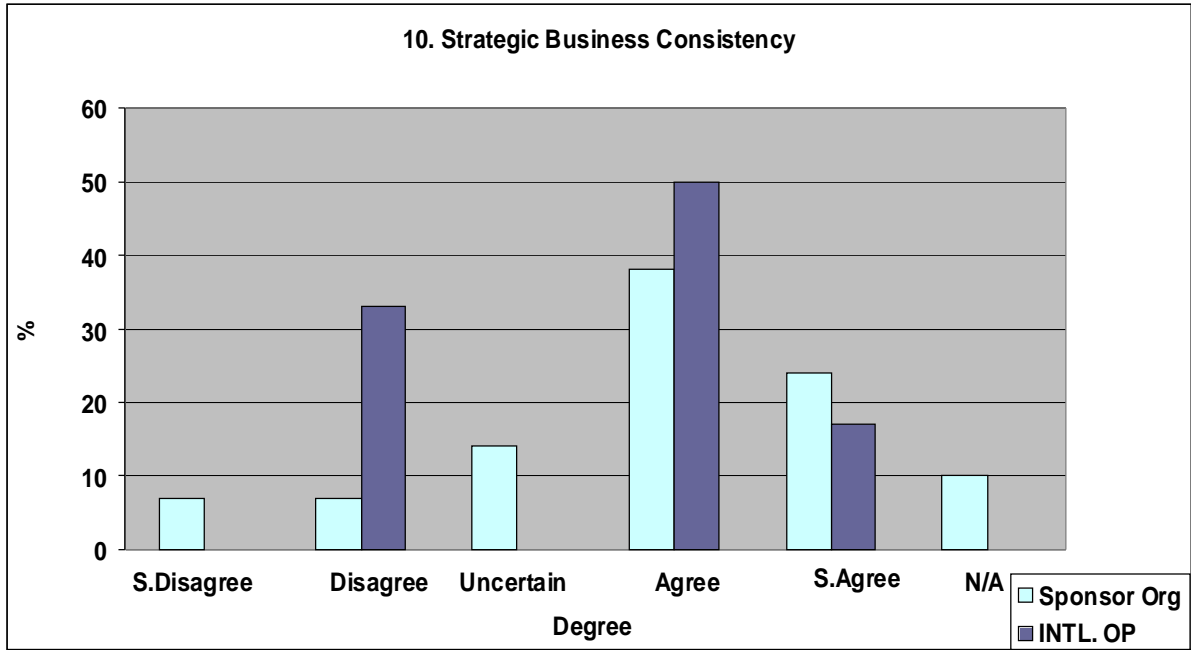
The results of question nine were varied for the sponsor organization, and there were few participants who answered ‘don’t know’. This might indicate that a lack of understanding among the participants about the objectives of executing projects. But for participants in international operators, it was clear that time and cost were the most important objectives to meet in executing projects.

Section 4: Participants Assessment of their companies processes

Q10. For initiating new projects is there always consistency between overall business strategy and the new project's business case?

1	2	3	4	5	N/A
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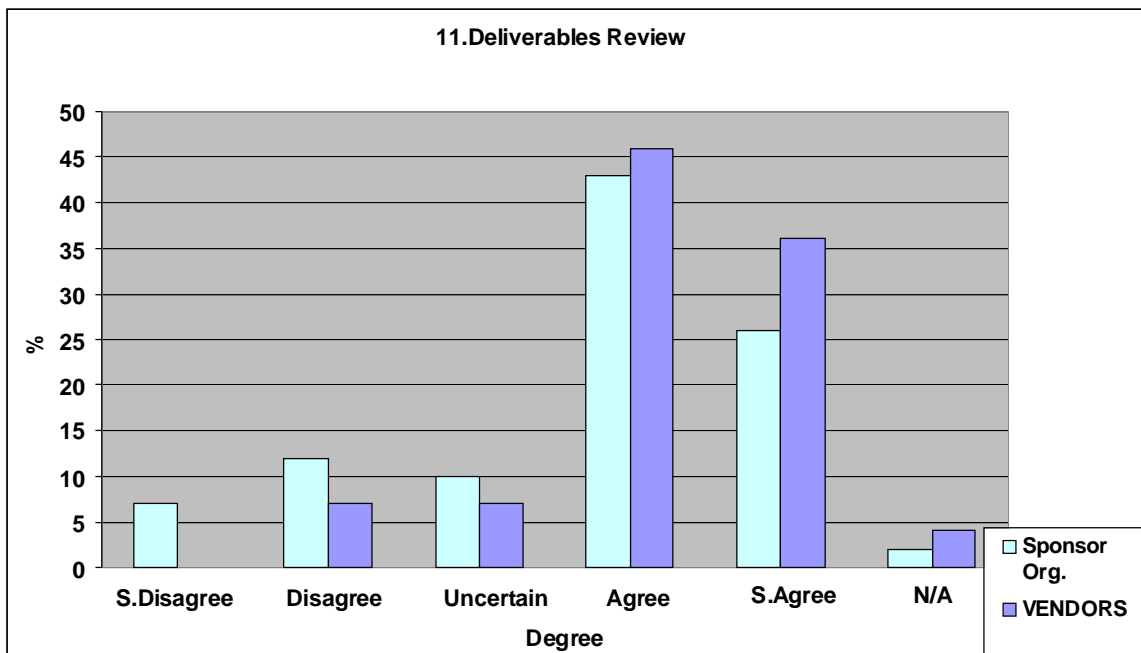


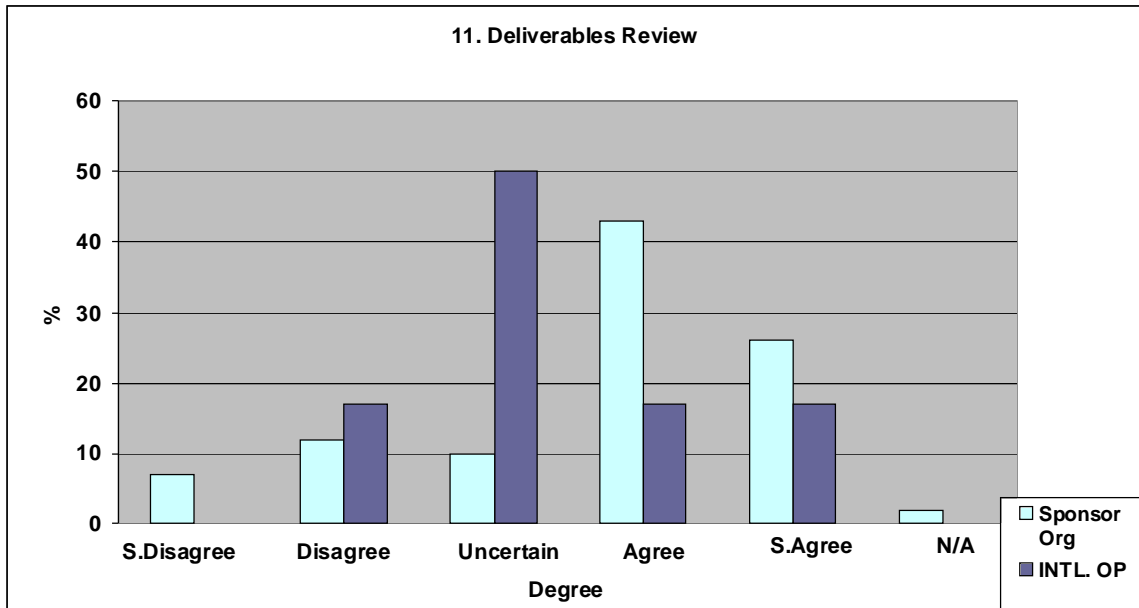


The results of question ten revealed that variations in the answers from the respondents of the sponsor organization as compared to other organizations.

Q11. The project manager and the team members always review the project deliverables against the overall business strategy?

1	2	3	4	5	N/A
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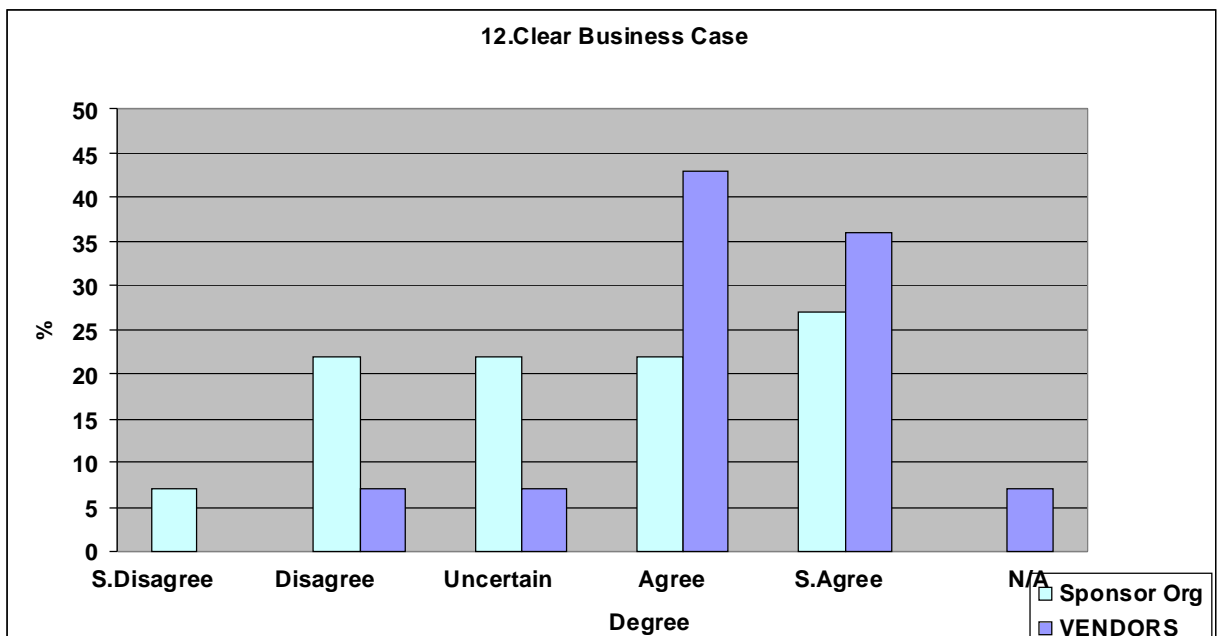


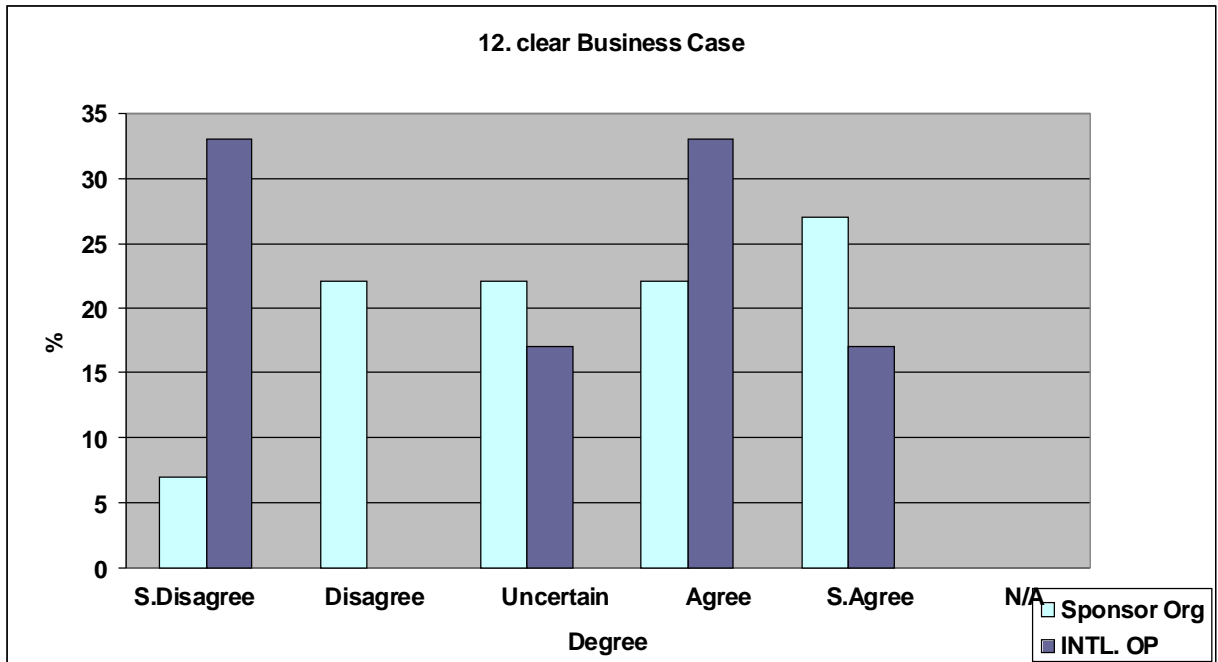


For question eleven, the answers from the sponsor organizations, the vendors' and the international operators' organizations spread over almost all the choices given in the question.

Q12. There is always a clear business case for developing a new project.

1	2	3	4	5	N/A
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The results from question twelve revealed that the answers spread across all choices for all organizations. For example, the sponsor organization participants selected all the five given choices.

7.2.2 T-test analysis

The above results show some differences between the answers of the respondents from the sponsor organization and those from other organizations. As mentioned earlier, the t-test is used to determine whether there is a significant difference between two groups of samples or just the difference is because of sample errors. The general formula for calculating the t-test is as follows (Fred, 2002):

T-test = mean difference/ standard error of the difference.

If the t-result lie between t critical (tc), then accept the null hypothesis, but if does lie outside accept the alternative hypothesis, as shown in formula below. The null hypothesis is that the two samples are same and there is no difference.

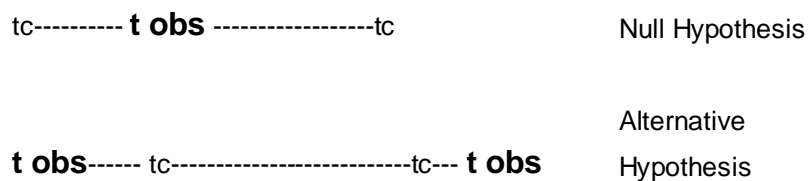


Table 7-1 below shows the results of the mean and t-test calculations for each question, the actual calculations are shown in **appendix 3**.

Table 7-1: Results - mean and t values

Question Number	mean value results		t-test results
	research organization	other organizations	t (statistic)
1	2.93	3.03	-0.56
2	2.3	1.73	2.02
3	2.91	3.22	-1.02
4	2.14	2.95	-3.12
5	1.55	1.00	4.75
6	0.93	1.00	-0.46
7	0.82	1.19	-1.94
8	2.84	4.57	-5.17
9	2.07	1.84	0.95
10	3.41	4.11	-2.34
11	3.57	3.92	-1.22
12	3.23	3.76	-1.65

The next sections present the t-test results for each question:

Q1. Educational Background

At Probability of 0.288 and df (79) then			
One-tail t-test t obs < t critical	-0.560780028	<	1.66437141
Two-tail test- t obs is in between +- tc	-1.990450177	-0.560780028	1.990450177
Accept Null Hypothesis	Level of Education is the same in both Omantel and other organizations		
Reject Alternate	There is significant differences between level of education of both sources		

Q2. Profession

At Probability of 0.023 and df (79) then			
One-tail t-test t obs > t critical	2.020667561	>	1.66437141
Two-tail test- t obs is outside +- tc	-1.990450177	Not within	1.990450177
Reject Null Hypothesis	Profession level is the same in both Omantel and other organizations		
Accept Alternate Hypothesis	There is significant differences between profession level of both sources		

Q3. Work Experience in the organization I currently work at

At Probability of 0.155 and df (79) then			
One-tail t-test t obs < t critical	-1.020172078	<	1.66437141
Two-tail test- t obs is outside +- tc	-1.990450177	-1.020172078	1.990450177
Accept Null Hypothesis	Years of experience differences is not significant between Omantel and others		
Reject Alternate Hypothesis	There is significant differences between years of experience of both sources		

Q4. Number of employees in the department I currently work at

At Probability of 0.00127 and df (79) then				
One-tail t-test t obs < t critical	-3.117581536	<	1.66437141	
Two-tail test- t obs is outside +- tc	-3.117581536	-1.990450177	Not within	1.99045
Reject Null Hypothesis	No of employees in the department differences is not significant between Omantel and others			
Accept Alternate Hypothesis	There is significant differences between No of employees in the department between two sources			

Q5. In executing projects, does your company follow a standard process?

At Probability of 0.00000442 and df (79) then							
One-tail t-test t obs < t critical	4.753234343	>	1.66437141				
Two-tail test- t obs is outside +- tc	-1.990450177	Not within	1.990450177	4.753234			
Reject Null Hypothesis	Whether the company follow standard process mean differences is not significant between Omantel and others						
Accept Alternate Hypothesis	There is significant differences between the means of two companies that they follow standard process						

Q6. If yes, is the process divided into generic phases (example: initiation, planning, execution, controlling & closing-out)?

At Probability of 0.00000442 and df (79) then							
One-tail t-test t obs < t critical	-0.460580511	<	1.66437141				
Two-tail test- t obs is outside +- tc	-1.990450177	-0.460580511	1.990450177				
Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether divided into generic phases or not						
Reject Alternate Hypothesis	There is significant differences between the means of both sources about PM process divided into generic phases						

Q7. If your answer is "yes" in question No. 6, does the process follow a *stage-gate approval process?

At Probability of 0.028 and df (79) then							
One-tail t-test t obs < t critical	-1.937494412	<	1.66437141				
Two-tail test- t obs is outside +- tc	-1.990450177	-1.937494412	1.990450177				
Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether follow a "Stage-Gate" approval process						
Reject Alternate Hypothesis	There is significant differences between the means of both sources about PM processes follow a "Stage-gate"						

Q8. To the best of your knowledge, please indicate the percentage of projects that follow a consistent project management process?

At Probability of 0.00000085 and df (79) then							
One-tail t-test t obs < t critical	-5.171993752	<	1.66437141				
Two-tail test- t obs is outside +- tc	-5.171993752	-1.990450177	Not within	1.99045			
Reject Null Hypothesis	There is no differences in the mean of the two sources about if their Percentage of projects following consistent PM processes						
Accept Alternate Hypothesis	There is significant differences between the means of both sources about the percentage of projects following consistent PM processes						

Q9. In telecommunications Project Management, out of the three project constraints (time, Cost & Quality), what is the most important one to achieve stakeholders satisfactions?

At Probability of 0.173 and df (79) then									
One-tail t-test t obs < t critical	0.947592568	<	1.66437141						
Two-tail test- t obs is outside +- tc	-1.990450177	0.947592568	1.990450177						
Accept Null Hypothesis	There is no differences in the mean of the two sources about the most important factor to stake holders satisfactions								
Reject Alternate Hypothesis	There is significant differences between the means of both sources about the most important factor for stake holders satisfactions								

Q10. For initiating new projects is there always consistency between overall business strategy and the new project's business case?

At Probability of 0.011 and df (79) then									
One-tail t-test t obs < t critical	-2.335771186	<	1.66437141						
Two-tail test- t obs is outside +- tc	-2.335771186	-1.990450177	Not within	1.99045					
Reject Null Hypothesis	There is no differences in the mean of the both sources have consistency between business strategy and project business case								
Accept Alternate Hypothesis	There is significant differences between the means of both sources about the having consistency between business strategy and business case								

Q11. The project manager and the team members always review the project deliverables against the overall business strategy?

At Probability of 0.113 and df (79) then									
One-tail t-test t obs < t critical	-1.218514967	<	1.66437141						
Two-tail test- t obs is outside +- tc	-1.990450177	-1.990450177	1.990450177						
Accept Null Hypothesis	There is no differences in the mean of the two sources about the having the PM and team members review deliverables against business strategy								
Reject Alternate Hypothesis	There is significant differences between the means of both sources about having the PM and team members review deliverables against business strategy								

Q12. There is always a clear business case for developing a new project.

At Probability of 0.051 and df (79) then									
One-tail t-test t obs < t critical	-1.654906777	<	1.66437141						
Two-tail test- t obs is outside +- tc	-1.990450177	-1.654906777	1.990450177						
Accept Null Hypothesis	There is no differences in the mean of the two sources about there is always business plan for new project								
Reject Alternate Hypothesis	There is significant differences between the means of both sources about about there is always business plan for new projects								

7.2.3 Discussions of the Questionnaire Survey Results

The t-test analysis revealed that questions two, four, five, eight, and ten have significant differences in the mean values between the sponsor organization and other organizations. Question two was asking the respondents to specify the position held in the organization. The answers varied for the sponsor organization between senior/middle managers to specialized, semi-specialized, office worker and others. As compared to the vendor organizations that concentrated more on the specialized and the semi-specialized. And the respondents from the international telecommunication operators were all semi-specialized. This differences reflect that the sponsor organization is more a functional organization and hierarchical than other organizations, because the characteristics of hierarchical organizations are the high number of functional specialties.

Question four was about the number of employees in the respondent's department. The results indicated that the majority of the respondents from sponsor organization were from relatively big departments (more than thirty employees). However, for the vendor organizations, the majority were from small departments (less than ten employees). Also, the respondents from the international operators were from small departments as well. These results were in agreement with the results of question two, because usually hierarchical organizations are organized around functions and specialties which require more number of employees than for example matrix organizations, where the organization is structured around work activities by assembling more teams instead of functional departments. The functional organization is not suitable for effective implementation of enterprise project management (Dinsmore, 1999).

Question five was related to the existence of the 'standard processes' in the execution of projects. The respondents from the sponsor organization 35% answered 'No', 55% answered 'Yes', and 10% answered 'do not know'. However, the vendors and international operators' organizations' respondents answered all 'Yes'. The differences indicated that the sponsor organization did not have generic processes or the process was not well communicated to the employees, and in either cases, the end results would be the same, which the process was not used.

Question eight asked the respondents to indicate the percentage of projects that follow a consistent project management process. The majority (over 25%) of the respondents

from the sponsor organization thought that only (0-20%) of the projects go through consistent project management processes. Whereas, the majority of the respondents from the vendor and international operator organizations thought that (80-100%) of the projects go through consistent project management processes. The difference between the sponsor organization and other organizations might be attributed to either non-existence of the project management processes or it is not communicated.

The consistency between overall strategy and the new project business case was the subject of question ten. The results spread over all the choices as compared to other organizations. Unlike the respondents from the vendor organizations where they answered: 58% agree, 37% strongly agree, and the remaining 5% was disagreeing. The respondents from the international operator organizations selected the following choices: 50% agree, 18% strongly agree and the remaining 32% disagree. The big variations in the responses between the respondents from the sponsor organization and other organizations indicate that the link between strategies and projects was not existing or at least not known to the sample chosen in the survey, which highly unlikely because the respondents present a high percentage (54%) of the people working with projects in the sponsor organization. Also, percentages of respondents (32% for international operators and 5% for vendors) from other organizations were disagreeing with the existence of a link between the business strategy and the project business case. The results show that the link between strategic planning and project management did not exist in these organizations although project management process was in existence. And this result indicated that the use of project management was only at the operational level for planning and executing tool. These results well compared with what was found in the literature (Morris, 2005), that project management is viewed as a planning and controlling tool only and not as strategic implementation tool.

It is obvious that the questionnaire survey results revealed a gap in the use of project management processes between the sponsor organization and other organizations within the telecommunication industry and this was confirmed by the differences that were shown in the results, which support the research need that the sponsor organization's project management process need to be improved. However, the questionnaire survey did not provide clear picture about the situation in sponsor organization with reference to the utilization of project management processes for executing projects and such process was linked to the organization's strategies or not.

Also, it was not possible through the questionnaire survey to map the existing project management process in the sponsor organization. Thus, more in depth investigation is required to understand how projects were executed in order to map the existing processes. The next sections will discuss the results from document analysis and interviews that were conducted with all internal functional managers.

7.3 Documents Review and Analysis

The main reason for the document analysis was to study the way projects were handled and to assess the existing process for managing projects. There were a number of projects that suffered delays in the life time of the research organization. However, only very few were documented to show chronological order of events that helped assessing the factors that resulted in the delay. Also, the type of contracts selected for analysis represented an infrastructure projects and support projects. The infrastructure projects were executed to add capacity to the network so that more subscribers could be added without suffering from congestion. The support projects are those projects that support the operation, example would be a billing system, and Enterprise Resource Planning (ERP). Some of the support projects are critical to the business like the billing system and some are less critical like the ERP projects. Also, the services that are provided by any telecommunication operator are supported by programs and projects that are categorized in processes such as: strategy, infrastructure and product development; operations; and enterprise management (Booz Allen Hamilton, 2006). Hence, the projects selected for this research analysis were within these classifications. Also, the lack of documentations for the projects due to lack of owners was a major factor for the selection of projects for analysis. The projects selected were as follows:

- 1. Sohar MSC Installation and Commissioning (infrastructure project) ,**
- 2. Expansion of GSM (Global System for Mobile communications) Network in Batinah, Buraimi and Musandam Regions and Expansion of GSM Network in Dakhiliya, Sharqiya & Dhahirah Regions (infrastructure and product development projects)**
- 3. Arbor Billing System project (operations support project).**

Also, contracts for the years 2002, 2003 and 2004 were analysed and classified for the purpose of arriving at the utilization of resources and compared them with the types of contracts.

The actual reports of the above three projects can be found in **appendix 2**. The names of vendors involved were hidden for confidentiality reasons. The process of analyzing qualitative data involves six steps such as (Creswell, 2003: 191): (1) *preparing* and *organizing* the data for analysis by transcribing, optically scanning or typing up field-notes, (2) obtaining a *general sense* of the information and to reflect on its overall meaning, (3) begin *coding analysis* with a coding process, coding is the process of organizing the material into 'chunks' or codes before bringing meaning to those, (4) use the coding process to generate *description* of the setting or people as well as themes for analysis, (5) represent the *themes* and the description into *qualitative narrative*, and (6) this final step involves making an *interpretation* or meaning of the data.

7.3.1 Sohar Mobile Services Switching Center (MSC) Installation and Commissioning

This was the first project that was officially put under review and analysis to assess the processes used to manage it. This project suffered major delay. Therefore, the President of the sponsoring organization issued a directive to form a team to conduct a detailed investigation to identify the causes for prolonged delays in the installation and commissioning of the Sohar Mobile Switching Center (MSC). The team was headed by the Executive Vice President with members from other units and departments who had involved in the project. The researcher reviewed the report prepared by the team.

The following sections describe the project briefly and shows the factors indicated in the report that caused delays.

Description of the project

A contract for the installation and commissioning of a new MSC in Sohar was signed in March 2002 with an international vendor to connect the Batinah, Musandam and Buraimi (these are areas in the north part of Oman) GSM traffic (northern Oman network) and off-load Ghala MSC (Ghala is a city in the capital Muscat) which

reached to congestion level and processor utilization well over the recommended level.

It was initially decided that the Sohar MSC project be a turnkey project where one vendor was to install and commission the switch at Sohar and Motorola to connect the network to the new MSC. This work involved dismantling of transcoders from Ghala and re-connecting them in Sohar. It was later decided that sponsoring organization staff will perform the works of commissioning Sohar MSC and connecting the GSM network to the new MSC. Two vendors were to provide only the technical support and supervision.

The report identified the four different parties involved for the completion of the project as well as the responsibilities assigned to each of them. The team produced Gantt Charts of the planned against actual dates for each of the activities taken for the historic data available and interviews done with the involved parties.

Factors that Caused Delays

The factors that caused delays as indicated in the report are essentially weaknesses in the various phases and elements of the project life cycle:

1. It was found that dependencies whether internal to the Mobile Communications Unit (MCU) or external to it with other units in the company were either not identified or otherwise identified but no action was taken to provide them. An example of an internal dependency is the TRAU equipment which was identified but failed to be ordered in sync with the MSC installations. *'All Omantel Units associated with the project failed to coordinate their activities to meet the deadline. The MCU being owner of this project however failed to order all associated GSM network equipments on time'* (P: 16 of the Sohar MSC Report in **appendix two**)
2. The report, in appendix two, also refers to lack of strategic alignment between the plans of the different units; this is shown in points 2 & 3 on page 16 of the report where Fixed Communications Unit had plans for expansions for its Transmission and switching system trunks but these were not aligned with the expansion of the GSM switching expansions. This is an evidence of lack of integration between the various projects within the sponsoring organization. This was supported by *'the appraisal report did not contain reference to*

- connectivity required from fixed communication unit in terms of 2 Mega Bits and switching trunk expansion* (P: 16 of the Sohar MSC Report).
3. The lack of skilled human resources in the Traffic Engineering field that directly resulted in the reactive plan of the introduction of this MSC rather than proactive. The theme is supported by ‘planning departments of all units are under staffed as present ration of staff to project is around 8 projects per engineer’ (P: 17 from the report under Shortage of Staff Heading).
 4. As a whole, the Mobile Communication Unit and other Units within the sponsor organization lacked the project management skills and relied on the vendor’s project management team that focused on the tasks that falls under their contract and not a comprehensive one, as mentioned in the report *‘there is no proper coordination among different departments in term of planning of projects and project management. All act independent of each other which results in lack of awareness of projects by other concerned Omantel departments leading to project gaps and missing vital linkage components’* (P: 17 under Lack of co-ordination heading).
 5. It was proposed in the appraisal report for this project that the MSC should be housed in Sohar exchange but the exact location was not decided and the lack of proper surveys and decision making authority resulted in the delay in deciding on the construction of a new floor in the exchange building. The supporting evidence for this theme was *‘another element of delay to the project was the non-availability of the Sohar Exchange Building. All though it was part of the appraisal report raised by MCU for MSC at Sohar as extension to existing building. But it took three months to take decision to either build a ground floor extension to the existing block or to build a new story to over the existing building’* (P: 17 under Non-availability of Sohar Exchange Building heading).
 6. The different departments involved acted independently due to the lack of communication between them which lead to the gaps and missing linkage between the various projects in the organization, this was supported by the quote *‘there is no proper coordination among different departments in term of planning of projects and project management. All act independent of each other which results in lack of awareness of projects by other concerned*

Omantel departments leading to project gaps and missing vital linkage components' (P: 17 under Lack of co-ordination heading).

7. Lack of long –term planning for projects as mentioned in the report *'departments lack long-term planning, there is no long term planning for network expansion in term of fixed, mobile and internet and others. Failure of long term planning substitute's reactive projects lacking inputs from all required components*' (P: 17 under the Lack of long term planning heading).
8. Three months delay caused loss of revenue and manpower hours equal to (236,019.872 Omani Rials, equal to 611,450 US\$), (as in page 19 of the Sohar MSC Report)

The recommendation of the team was to establish a project management processes and organization, as evidenced by: *'for this project and for future projects is to have a holistic approach to project management to oversee the whole project*' (P: 3 in the Sohar MSC report in **appendix 2**). Also, the review team recommended to *'setup a project management organization to facilitate the project coordination process and to allocate priorities*' (P: 20 in the Sohar MSC report in **appendix 2**). Also, the report recommended project review phase to learn from the project execution phase, as it was mentioned *'Omantel should also audit its projects upon completion to acquire and learn from shortcoming/falls to upgrade the whole process as and when required for better project management process in the future*' (P: 20 in the Sohar MSC Report, under conclusion and recommendation section).

7.3.2 Expansion of GSM Network in Batinah, Buraimi and Musandam Regions (Contract 2001/138) & Expansion of GSM Network in Dakhiliya, Sharqiya & Dhahirah Regions (Contract 2001/129)

These were two major GSM expansion projects that were reviewed: contract 2001/138 was signed on 5th August 2001 and contract 2001/129 on 15th July 2001. The nature of these projects was identical where the scope of works for both included the construction of new 60 wireless sites in various bare land, building and hill top locations; the hill top sites mainly being transmission sites. The works of such projects included dependencies on several civil type contracts such as the construction of access roads and boundary walls, availability of helicopter services (for lifting materials and labors to hilltop sites) and approvals for permits from various government authorities.

Description of the projects

Although there were no reports available that described these projects in detail, such projects represent major infrastructure expansions and their analysis would be required. Time extension request letters (in Arabic) for a further one year period for each project were found (**appendix 2**). These letters in summary indicated that 18 months after the contract signature past the contractual completion dates, progress of work was as shown below for each of the contracts as of the date requesting for extension of time:

Contract 2001/138:

Table 7-2: Details of Project 2002/138 in the sponsor organization

Scope of Work	Progress	% Complete
Upgrades of 52 sites	All sites upgraded	100 %
New 60 macro sites	Work in progress in 7 sites. 42 site demarcation layouts (krookies) obtained. 25 land lease agreements. 7 building permits	< 12 % 70 % < 42% < 12 %
New 25 micro sites	19 lease agreements in progress. (No agreements signed).	0 %
New 40 hilltop sites	Survey not done.	0 %

Contract 2001/129:

Table 7-3: Details of project 2002/129

Scope of Work	Progress	% Complete
Upgrade of existing switches & BSC's in Ghala, Nizwa & Salalah.	All works completed	100 %
Upgrades of existing sites	All sites upgraded	100%
New 10 macro sites	1 site in operation. All site demarcation layouts (krookies) obtained. All land lease agreements (on 10 Nov 2002). Building permits	10 % 100 % 100 % Unknown
New 9 hilltop sites	Survey not done.	0 %

Factors that Caused Delays

The following were few factors that caused the delays, which were mentioned in the Arabic letters as reasons to support the request for extension (Refer to **Appendix 2**):

1. Major delays in obtaining sites' demarcation layouts (krookies) and land lease agreements from government authorities who lead to delays in site preparation in terms of soil investigation, etc.
2. Major delays in obtaining building permits from government authorities which lead to delays in executing the various civil works such as site leveling, tower erection, boundary walls and power.
3. Failing to obtain site demarcation plans (krookies) lead to delays in floating a tender for construction of access roads and for helicopter services.
4. Lack of dedicated project teams and hence insufficient communications between the various departments required to be involved for the successful completion of projects.

The above reasons indicated that when planning these projects, enough time was not allowed in the original time schedule to avoid the request of extension, which is basic requirements of project management, if there was a process exists within the research organization.

7.3.3 Arbor Billing System Project

To properly position the organization at strong competitive stand, state of the art billing system was a must. Also, for the foreseen liberalization of the telecom market in the Sultanate of Oman as well as the privatization of Omantel, it was decided to tender for a new billing system that will be compliant with the legal requirements of the telecommunications industry regulatory organizations as well as to increase the level of its customer satisfaction, introduce some value added services such as real time payments, wireless and wire-line service packages, and increase its revenues through flexible billing, campaign offers, dept management. The contract was signed on 8th April 2001 with contractual completion in August 2002.

Reports Review

Various correspondences and minutes of meetings were collected to review the project status at various intervals of time. These clearly show that the project suffered

severe delays where some tasks were delayed up to 16 months (**appendix 2** contains the reference documents). It is shown that due to the serious delays of the project, the project phases were swapped; phase 1 for wireless Billing and phase 2 for wire-line billing. The 1st phase was rescheduled to be completed by 1st March 2003, as mentioned on the vendor letter page: 2 under Annexure 1 the first paragraph. This decision *‘resulted in non-availability of existing hardware for testing / development activities. The additional load on the new hardware adversely affected the performance of the running project and the project schedule’* page: 2 of the vendor report under annexure 1 paragraph four. The impact of the delays in the resources’ of the sponsor organization affected the quality of testing the system for compliance to the requirements, as mentioned *‘The delays forced Omantel resources to divide their attention to multiple tasks thus affecting the quality of the testing at various levels and also caused a large team of Omantel staff to work extended hours’* (page 4 paragraph two just below the table). Further, because of the large number of defects not being resolved within the specified time, Omantel incurred almost 28% revenue loss, as quoted in the report *‘due to a large number of defects not being resolved within the specified time, Omantel had to delay the launch of the system by 2 months (in addition to the earlier delay) and moved the billing system to live platform during April 2003, with a number of defects unresolved {...} to our grave concern and disbelief, many of the defects still remain unresolved, including to rating 40 of the 140 live calls made {...} translates to over 28% revenue loss’*.

The wireless billing (phase 1) was finally launched in September 2003 with unacceptable performance from system and the contractor for resolving defects. This was due to the lack of required skills within the contractor’s team. As a result of the various events occurred in this project, Omantel took a decision to suspend all activities in the 2nd phase (wire-line) and to give the contractor a notice of cancellation, as mentioned in the report *‘{...} to show its continued cooperation has extended a further period of 30 days for the vendor to resolve all issues related to the 1st phase (wireless billing) of the projects. In the meanwhile, the second phase (wire line) of the project stands suspended’* (page 11 of the Arbor billing report, first paragraph).

Summary of factors that Caused Delays

From the above evidence, the project suffered almost 12 months delay, as in the table shown in (page 3 of the report the second item of the second table) and the reasons were:

1. Improper definition of scope and clear change management procedures were main contributors to the delay.
2. Insufficient communication between the sub-contractors and the main project contractor and Omantel team lead to defects and requirements being incorrectly communicated to the sub-contractor (the original software vendor) and therefore wasted hours of testing, re-negotiation, further modification and additional costs.
3. Insufficiently skilled contractor project team technically, operationally and in project management.

The above results from the three sample projects revealed that there was no evidence of standard project management processes which were followed in the sponsor organization; hence all projects were delayed causing further delays to the implementation of major strategies that aimed at preparing the sponsor organization for the competition.

7.3.4 Contracts Review

Contracts are believed to be a true measure for the implementation of successful strategies, because they represent the concentration of work and the focus of the resources in an organization. Hence, their analysis provide and insight into the nature of the distribution of the resources within any organization. Contracts signed for the years 2002, 2003, and 2004 were analysed to identify the match of projects with strategic objectives. The number of contracts was found to be large (191 & 218 for 2002 & 2003 & 189 up to 28th September for the year 2004).

The Contracts were classified in four categories, High cost/high importance, low cost high importance, low cost and low importance, and high cost low importance. The cost and importance in terms of the link to strategic objectives are main attributes to project's success. The high important projects are the 'Strategic' and the low important projects are the 'operational' projects like the internal projects (human resources development projects). The categories are detailed as follows:

- **(A) High cost, high importance (HC/HI):** These include strategic projects which add a competitive advantage for the research organization in the marketplace. These projects include the provision of telecom services to new uncovered areas and major expansion of existing networks to provide extra capacity to add more customers. Also projects that focus on improving the internal status of the company were classified under this category; examples of these are the expansion of the fixed transmission backbone, expansion of exchanges, GSM expansions, collection contracts, Disaster Recovery System, etc. Although some are with comparatively low values they are considered strategic in nature.
- **(B) Low cost, high importance (LC/HI):** there were many small similar projects in the three consecutive years which were signed separately and other small contracts. These are small expansions or maintenance, Consultancy for telecom projects.
- **(C) Low cost, low importance (LC/LI):** Although all contracts are considered important, these contracts are lower in importance as compared to A and B, because they do not contribute to the competitive strategy of the sponsor organization. These include contracts that were not related to the core telecommunication services like building maintenance, plantation, etc.
- **(D) High cost, low importance (HC/LI):** These contracts included support contracts such as purchase of PC's, servers, cars, civil and power, SIM cards, and scratch cards. Such projects are actually specially signed for the success of strategic projects such as support contracts for GSM projects or vital for the success of existing services such as SIM cards, scratch cards, etc.

IMPORTANCE	HIGH (Strategic)	(B) Consultancy, Adhoc Telecom, License, maintenance, NDA	(A) Strategic
	LOW (Operational)	(C) Some maintenance	(D) Support: PCs, servers, cars, Power, Roads, Walls, SIM cards, Scratch Cards, appointment of staff, Training
		LOW	HIGH
		COST	

Figure 7-1: Distribution of Contracts in the Sponsor organization

Figure 7-1, shows the classifications matrix. Looking closer at the contracts, there were some contracts like those in class B, could have been merged into one contract if more efficiency was applied. Further, it was noticed that the distribution of the contracts in the sample taken showed that the strategic projects form a very small percentage of the overall contracts signed; only 6%, 11% & 5% (for the three respective years), whereas there was 62%, 47% & 52% (for the three respective years) small telecom projects which in reality should have been combined with the strategic projects. There were also relatively high percentages for D category.

Overall, the distribution follows the same pattern in terms of classification as shown in the table next page.

The distribution pattern in percentages is shown in table below:

Table 7-4: The percentage distribution of contracts in the sponsor organization

Category	Percentage, Year		
	2002	2003	2004
A	6%	11%	5%
B	62%	47%	52%
C	1%	2%	3%
D	31%	40%	40%

It is clear from the above results that the distribution of contracts was not towards the strategic projects that serve customers and add competitive advantage to the organization and hence the focus of the organization's resources.

The documents and contracts analysis provided an in-depth knowledge about how projects were executed in the sponsoring organization and factors that caused delay to the project execution within the sponsor organization. The sample projects were major to the success of the organization as they represented infrastructure projects and operation support projects and delay in these projects adversely affected the reputation of the company. However, the document analysis did not provide information to map the existing processes; therefore, the next section will provide results from two types of interviews.

7.4 Interviews

There were two types of interviews: internal and external. The internal interviews were unstructured conducted with functional managers in the research organization and the main reason was to understand how projects were executed and map the existing process of project management. However, the external interviews were conducted with strategic planning heads and managers within organizations other than the research organization, the aim of this was to understand how strategies were

formulated and implemented within various project-based organizations. The interviews were analysed using a combination of thematic and comparative data analysis methods (Dawson, 2002 and Creswell, 2003). The thematic analysis creates codes for chunks of data and then describes them by creating themes from the data during the process of data analysis. Comparative analysis is concerned with comparing and contrasting the data collected from different people.

Eight internal interviews were conducted with the following personnel:

1. Manager Procurement and Contracts (Int.1)
2. Manager Services (Int. 2)
3. General Manager Finance (Int.3)
4. Senior Engineer Fixed Unit (Int. 4)
5. Manager, Geographic Information System (Int.5)
6. Manager Strategic Planning (Int.6)
7. Manager Information Technology (Int.7)
8. General Manager Mobile Communication Unit (Int.8)

The above sample was selected to cover all the functional departments and units in the organization. As mentioned earlier, the main reason of those interviews was to understand how projects were executed, was there a common process that utilized by all functional departments, and the difficulties/problems facing existing process from the point of view of the interviewees. The contents of the interviews can be found in **appendix 4**. There were three main topics for each interview, namely: current project management processes, the problems encountered with the existing processes, and recommendations to improve the current process. The following themes emerged from the interviews (please refer to figure 7-2 on page 172):

Theme 1: Lacked of Communication between the end users within the sponsor organization, this theme was supported by: ‘*miss-communication*’ Int. 1, Int. 3 & Int.6, ‘*delays in official communication flows*’ Int. 4 and ‘*lack of communication*’ Int. 5 & Int. 8.

Theme 2: Projects were managed individually within one functional unit/department (Pooled Processes), this was supported by: ‘*No coordination between units*’ Int. 1, ‘*concerned units are requested to cooperate and work with full team spirit*’ Int. 2, ‘*recommended a technical committee to review the technical proposals of the units*’ Int. 6.

Theme 3: Project process did not follow standard project management methods, and was not documented, this theme was supported by: all the procedures mentioned by the respondents were different for each one, which clearly indicate that the understanding of starting a project and ending it was not the same for all the managers. For example, Int. 1, started the project by *'manager Tender & Contract Department transfer the end user request to tenders section'*, for Int. 2, the starting step for a project was *'request for a suitable space'*, and for Int. 4 *'strategic planning in coordination with development council prepares master plan'* and similarly for other interviewees.

Theme 4: Requirements were not integrated, this proved by the statement mentioned by: *'Unclear scope of work'*, Int. 1, *'missing proper consultants to specify the specifications of the project'* Int. 2.

Theme 5: Unclear responsibility between different departments and individuals, as mentioned by: Int. 4 *'lack of responsibilities'*, Int. 5 *'unclear responsibility'*, and Int. 6 *'unclear roles leading to duplication'*.

Theme 6: No feasibility study conducted for each project, *'no accurate demand forecast'* Int. 1, and *'Incomplete feasibility'* Int. 3.

Theme 7: Lengthy procurement process, supported by: Int. 5 *'Delays in tender preparation and floating'*.

There was no evidence of documented process for managing projects. Hence, projects were executed in different ways in different departments. Also, projects were executed in functional silos without integrating requirements with other functions outside the authority boundary. An example of a mobile project execution process is shown in the flowchart shown in Figure 7-3 page 173. This flowchart was suggested by the concerned General Manager during the interview (Int. 8).

As shown from figure 7- 3, the process is based on activity and not defined by clear phases that are linked to product development or project execution lifecycle phases. Also, the process covered only the activities involved in executing projects and did not cover the phases of the project, these activities could be easily grouped under phases. For example, site acquisition and soil testing can be grouped under 'site preparation phase' and can start during the network planning phase.

The findings from the internal interviews supported the findings from the document analysis. The major causes for delays of the three sample projects were well explained by the interviews' findings, namely: lack of communications between the internal and external stakeholders of the projects, projects were managed within internal functional units and departments without integrating the requirements of other units and departments, lack of clear responsibilities for project team members that allowed duplication or missing of some activities, and lengthy procurement processes without known time period to help better planning at the initiation of projects. All these issues were considered in the design of the new Enterprise Project Management Model (EPMM).

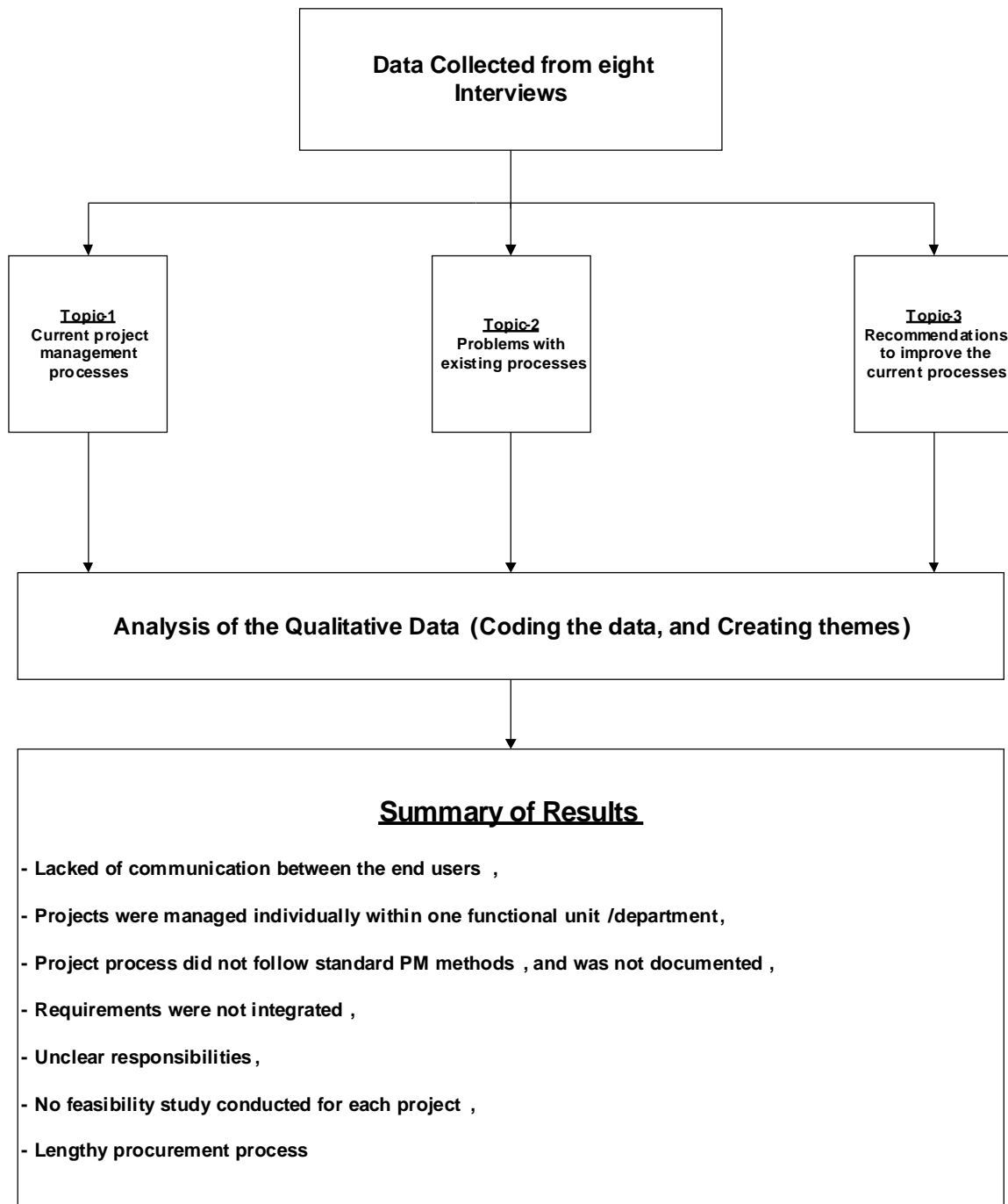


Figure 7- 2: Interviews-1 Qualitative Data Analysis

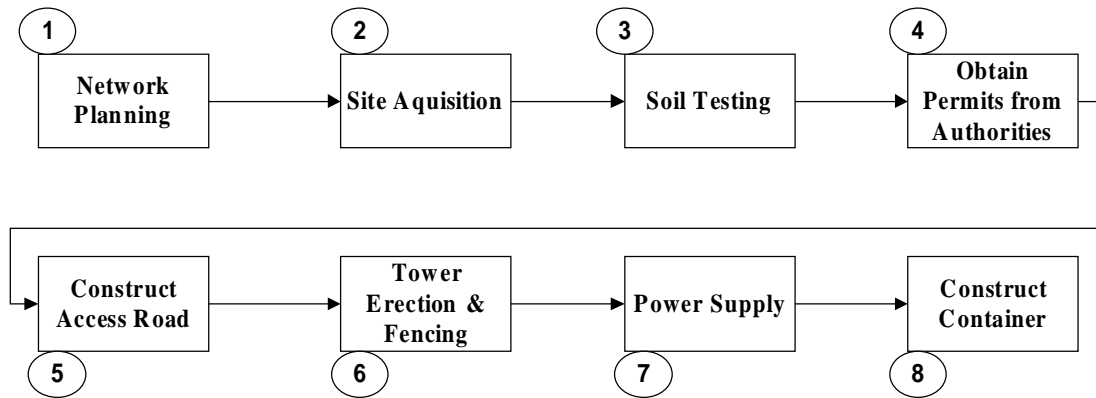


Figure 7-3: Example of project management processes in the sponsor organization

The external interviews were semi-structured face-to-face interviews. The objectives of these interviews were to benchmark how strategies are developed and formulated in organizations other than the research organization; and the link between strategic formulation and implementation. The sample was selected to cover the major industries in the country where the research taking place. Also, the companies selected are project based. The table below shows the details of the interviews:

Table 7-5: Details of Interviews-2

Company	Industry	Interviewee (s)
Large construction (subsidiary of international firm)	Construction	Regional Manager (Int-1)
Oil & gas products and service stations (subsidiary of international firm)	Retail	Corporate Affairs & Branding and Communication Managers (Int-2)
International project management consultancy and training	Consulting Service	Senior/Managing Consultant (Int-3)
Liquefied natural gas plant	Oil and Gas	Finance Manager and Secretary of the Board (Int-4)
Bank	Financial Service	Deputy GM, Corporate (Int-5)
International telecommunication services' provider (Vendor)	Telecommunication Service	General Manager (Int-6)
Telecommunication operator (Research Organization)	Telecommunication	Strategic Advisor (Int-7)

The interviews were taken place in the offices of the interviewees, and then validated by the interviewees being given the opportunity to comment on or alter if needed the transcript via e-mail. The sample of companies was selected to cover wide base of industries.

There were five topics covered in the interviews, as follows:

- **Topic 1:** description of the operating competitive business environment in terms of competition, critical success factors, and the organization structure; and an explanation on how business strategies are formulated at the corporate level,
- **Topic 2:** an explanation of the business planning process highlighting the roles and responsibilities of each stakeholder,
- **Topic 3:** the main processes/methodologies used to ensure the implementation of strategies,
- **Topic 4:** the use of project management in the organization,
- **Topic 5:** The challenges faced during the execution of strategies and ways of overcoming such challenges.

The results of the interviews can be summarized in the following themes, as summarized in (please refer to figure 7- 4):

- **Themes-1 & 2:** The business environment was competitive for all companies except one organization where it was monopoly. Also, the corporate strategic planning process and the business planning process were found to be similar across all the companies interviewed. All of the companies followed a top-down approach in their planning process, where strategies were evolved from the senior management (board, management teams or the international corporate office in the case of a subsidiary company). The significance of this theme was supported by comments such as: “*the process starts by the management team conducting brainstorming session....*” (Int-4); “*the process*

of strategic/business planning is a top-down approach. It starts when the Chief Executive Team decides specific corporate directions”; and “the Board of Directors of the... which formulates, articulates and directs implementation of the corporate strategies and policies” (Int-1). The translation of strategies into actions follows a similar model to that was suggested by Morris and Jamieson, 2004. However at the moment, one organization does not follow similar model, instead the strategic planning process is “regarded as a document and not as a process, and there is a distinction between the strategy development and implementation” (Int-7),

- **Theme-3:** The strategies are monitored using methods such as: pure budget performance, the balance scorecard performance measurement system, key performance indicators, and responsibility matrix reviewed on periodic basis; as supported by the quotes from interviewees: *“SMART actions are set for all functional departments/units. Then, the functional managers transfer these actions into individuals’ tasks and targets plans” (Int-4); “the budgetary process is the main tool used by the... to ensure implementation of the strategies and business plans” (Int-5); “the action plans are assigned according to responsibility matrix” (Int-2 & Int-6); and “the Balanced Scorecard technique, performance forum that meets in a monthly basis to review KPI’s...” (Int-4)*
- **Theme-4:** Project management was found to be used only as an execution process for individual projects and not as a strategic implementation tool. Project management is used at *“micro-level to manage sites, resource allocations, scheduling and resource management” (Int-1); “application of project management is limited to maintenance and support projects only (buildings, fencing, routine maintenance works)” (Int-4); “project management is used to execute technical projects only, ...” (Int-4); and “projects are identified for implementation using project management techniques in the following areas: development of new projects and services, implementation of new IT systems, development/implementation of human*

development initiatives and major growth in new geographical or business areas” (Int-5).

- **Theme-5:** The challenges that were commonly faced during the execution of strategies are: corporate strategies developed by a top-down approach by international firm may not be applicable to local market conditions, shortage of resources, and support processes and standards are not flexible enough, communication of the strategies and lack of project management skills. Evidence of this theme were: *“sometimes corporate strategies are not applicable to local market conditions” (Int-1); “major challenges in the business: limited resources, financial approval process tends to be lengthy, standards are very strict” (Int-2); and “the most critical challenges in execution of strategies are the following: communication of strategies..., allocation of responsibilities to various business units and functions..., coordination of the actions of different teams and departments..., mobilization and allocation of adequate resources, and controlling the efficient use of available resources” (Int-3)*

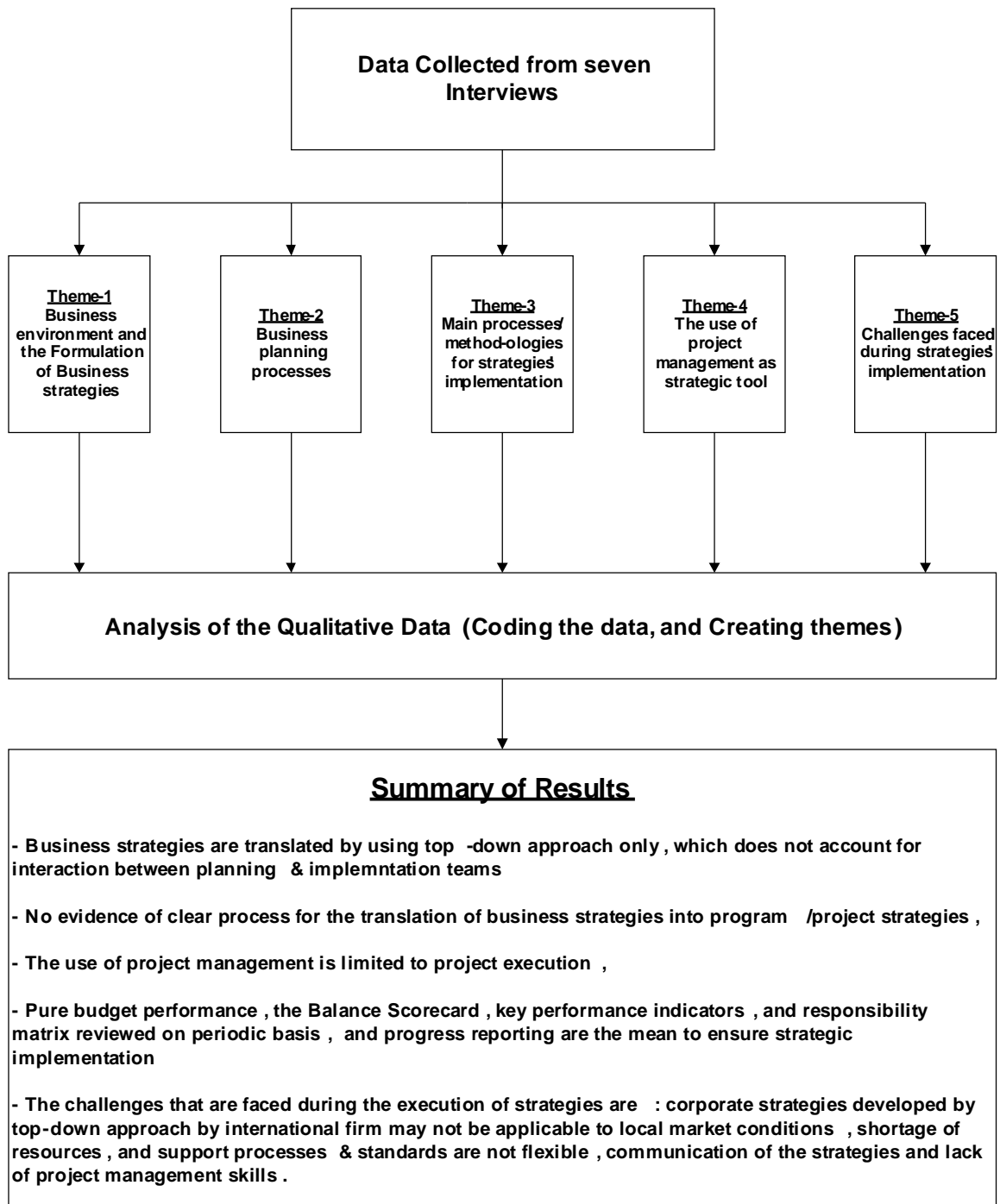


Figure 7-4: Interviews-2 Qualitative Data Analysis

7.5 General Discussions

The previous sections set-out the analysis of results of the various data collections methods, the survey questionnaire, document analysis, and interviews.

The survey questionnaire results revealed significant variances between the sponsor organization and other organizations in the use of project management processes (question five), the percentage of projects that follow consistent project management processes (question eight), and the existence of consistency between overall business strategy and the new project business case (question ten). The variations in the responses were clearly because of the project management process did not exist within the sponsor organization. This was proved by the documents analysis of the projects. For instance, the team who investigated project (1) ‘the Sohar MSC Expansion’ recommended a ‘*holistic approach to project management*’ (P.3 of the report) and ‘*to set-up a project management organization to facilitate the project coordination process and to allocate priorities*’ (P: 20 of the Sohar MSC Report in **Appendix 2**). Also, the internal interviews (Interviews-1) revealed a lack of communication and the projects were managed within functional units without generic phases within the research organization. These two reasons, specially the lack of project management processes made the sponsor organization to suffer delays in their projects as shown from the three sample projects. Also, the focus of the resources was more on low cost, high importance (B), and high cost, low importance (D) type contracts and not on major strategic expansion projects. Going forward with these conditions and with the competition in mobile and fixed services next door (as discussed in Chapter Two) would jeopardize the reputation of the sponsor organization and its financial performance. For one project only, it was shown that three-month delay caused a monetary loss of (US \$ 611,000) plus loss of customer faith.

Among the results of the external interviews (Interviews-2), it was revealed that project management was found to be used only as an execution process for individual projects and not as strategic implementation tool, and this finding confirmed with the findings of (Morris, 2005), when he said that ‘*what you give-out, you get back. If we position project management as an execution-only discipline, we will be seen as just that and cut-off from the really important parts of the projects: those where value can most be created: the front-end*’ (P: 5). Also, from the results of external interviews,

there was no clear links between the project strategies and project management processes in other organizations. And both these findings support the research study in terms of the need of the sponsor organization for process that links its strategies with its projects execution and would make the EPMM the first model to link business strategic development with implementation using project management processes.

As it was discussed in Chapter Four, the maturity models are a method used to measure the capabilities of the organization in using project management, and they serve as the foundation for achieving excellence in project management. The Kerzner's Maturity Model for example was based on only the project processes and phases and it did not require preparatory steps to use it like financial and return on investments calculations as compared with other maturity models shown in Table 4-6. The main aim of this research study was to enhance the strategic implementation through project management processes in the sponsor organization. Thus, the Kerzner's Maturity Model was selected for the assessment of the sponsor organization's project management maturity. According to Kerzner (2001), the Project Management Maturity Model is comprised of five levels as follows:

- **Level 1 - Common Language:** the company starts to recognize the importance and benefits of project management and the need for a good understanding of the basic knowledge on project management,
- **Level 2 - Common Processes:** the company recognizes that common processes need to be defined and developed such that success in one project can be repeated on other projects. Also, in this level, the organization recognizes the application and support of the project management methodologies to achieve strategic objectives,
- **Level 3 - Singular Methodology:** in this level, the organization recognizes the need to combine all corporate methodologies (processes) into one integrated methodology based on project management
- **Level 4 - Benchmarking:** in this level, the company recognizes the need to continuously improve the singular methodology (process) by benchmarking with others in the same industry,

- **Level 5 - Continuous improvement:** in this level, the company performed benchmarking successfully and as a result collected information, evaluated them, and decided to use them to enhance the singular methodology.

The results that were obtained from the sponsor organization revealed that there were no formal processes for executing projects, thus, within Kerzner's maturity model, the sponsor organization could be placed, just on level one (Common language), because it started to realize the need and benefits of project management (refer to the recommendation made by the team who reviewed project (1), Sohar MSC Expansion in **Appendix 2**). The main characteristics of Level 1: Common Language, are (Kerzner, 2001: 47):

- (1) there may exist small 'pockets' of interest in project management, with most of interest existing in the project-driven areas of the firm (evidence for this was the suggestion made by the Sohar MSC review team),
- (2) decision making is based on what is in the best interest of the decision maker, rather than the firm as a whole (evidence was Theme-2 of the internal interviews: projects were managed individually within one functional unit/department (Pooled Processes), this was supported by: '*No coordination between units*' Int. 1, '*concerned units are requested to cooperate and work with full team spirit*' Int. 2, '*recommended a technical committee to review the technical proposals of the units*' Int. 6), and
- (3) There exists no investment or support for project management training and education for fear that this knowledge may alter the status quo (evidence was Theme-3 of internal interviews: project process did not follow standard project management methods, and was not documented, this theme was supported by: all the procedures mentioned by the respondents were different for each one, which clearly indicate that the understanding of starting a project and ending it was not the same for all the managers. For example, Int. 1, started the project by '*manager Tender & Contract Department transfer the end user request to tenders section*', for Int. 2, the starting step for a project was '*request for a suitable space*', and for Int. 4 '*strategic planning in*

coordination with development council prepares master plan' and similarly for other interviewees)

Therefore, the results from the various data collection methods revealed the need for a model, in the sponsor organization for this research, which would link business strategic development with implementation using project management processes through the use of the Enterprise Project Management Model (EPMM).

7.6 Summary

This chapter focused on the presenting the results and their analysis. The methodology of the research was action research which made use of three data collection methods namely: survey questionnaire, document review and analysis, and interviews. Qualitative and quantitative analysis tools were used. For qualitative analysis, thematic and comparative analysis methods were used. And for the quantitative analysis, descriptive and statistic inference (t-test) analysis methods were used. The results revealed a clear need for the Enterprise Project Management Model (EPMM). The next chapter will discuss the development of the EPMM in details with respect to its phases, processes and concepts used in its design.

Chapter Eight: The Enterprise Project Management Model (EPMM)

8.1 Introduction

Chapter Seven presented and discussed the results from the diagnosis phase of the action research methodology. This adopted a triangulation approach to data collection through the use of a mixture of quantitative (such as questionnaire survey) and qualitative (such as document analysis and interviews). This chapter will present an Enterprise Project Management Model (EPMM) that was developed to fill the gap found in the literature review and the field investigations. The chapter will start by presenting the aims and objectives of the EPMM, followed by showing the basic high level steps and the main phases involved with detailed description of each phase.

8.2 Need for the EPMM

Both the literature review and the field investigation confirmed the need for the EPMM.

The importance of linking project management processes with an organization's future strategies was not clearly spelled-out in the different Project Management Bodies of Knowledge. For instance, the Project Management Institute Body of Knowledge (PMIBOK, 2004) in its new definition states that projects can be seen as: *'a means of achieving an organization's strategic plan'* (P: 7), no process or guidance was mentioned on how the strategy and projects interact. It was implied that the strategic plan would be given to the project team without their involvement, so there is no integration between the strategic planning team and the implementation team Morris (2005). Also, the phases of the project in the (PMIBOK, 2004 & PMI-OPM3, 2003) were placed as generic phases (initiate, plan, execute) but not related to typical project lifecycles such as: strategic appraisal, develop, plan, execute). Morris (2005) makes it clear that the project lifecycle indicates the real features of the project. Moreover, in a survey conducted by the University College London to develop the new APM Body of Knowledge (APM, 2005), the results showed an *'overwhelming vote for including KPI's, strategy, finance, stakeholder management, value management, benefits management, risk, quality, HSE, scope, technology, estimating and most people factors- all representatives of the front-end topics- in a project*

management Body of Knowledge' (Morris, 2005: 3). Harvey (1971) argued that the separation between the design and production functions were the main contributor to the inadequacies of construction projects.

The field study reported in Chapter Seven, also, confirmed that the sponsor organization did not have a process for executing projects, which caused financial and image damage due to delays in completing projects. According to Cooper (1994: 6), every organization needs a '*formal blueprint, roadmap, and template or thought process for driving a new product from the idea stage to market launch and beyond*'. Such a formal process would transform the strategic objectives into project objectives through the project brief document. This document needs to contain a precisely worded and carefully developed statement of the work that is required to be executed to achieve the strategic objective (Lee, 2002). The external interviews analysed in Chapter Seven revealed that project management processes were used only to execute individual projects in isolation from the overall business strategy. This approach was illustrated by comments made in connection with theme-4, as quoted: '*micro-level to manage sites, resource allocations, scheduling and resource management*' (Int-1).

From the literature review, it was found that Ansoff (1965) and Steiner (1979) developed two models for strategic planning, and both models were criticized by focusing on the development of strategic plans while ignoring the implementation part of such strategic plans (Mintzberg, 1994; Bausman, 2002; Al-Balushi *et al*, 2005).

For example, Steiner's (1979) planning model, shown in Figure 3-5, in Chapter Three, which included not only management's goals and objectives but extended it to consider all major stakeholders' expectations. Such stakeholders included the society, suppliers, customers, government agencies, and employees. Also, Steiner's model placed more attention on the implementation plans of organization long-term strategic plans by linking the strategic plans with its medium and short-range plans. The short range plans were developed to support the implementation of the firm's strategic objectives. Although, the model placed a link between strategic plans and their implementation but not with great detail or emphasis and as a result it was evident that there was no control and monitoring mechanism to ensure successful implementation. Therefore, the new EPMM will provide the sponsor organization with a process to execute projects successfully. This model will ensure that the projects' success will be linked to the sponsor organization's strategic objectives.

8.3 Aim and objectives of the EPMM

The literature review revealed that most of the general management writing tends only to focus on the strategic management processes that formulate and implement strategy at the corporate level. There found to be a real dearth of writing on how corporate strategy gets translated into comprehensive program or project management strategies. This finding was confirmed by (Jamieson and Morris, 2004). The findings from the questionnaire survey, the document analysis and the internal interviews (Interviews-1) revealed a lack of a thought process for executing projects within the sponsor organization, which caused delay in the execution of major strategic expansion and support projects. These findings were confirmed by the variations in the responses from the sponsor organization's respondents and other organizations' respondents (example was Question five and Question Eight of the questionnaire survey). Also, the review team of the Sohar MSC evaluation team recommended the establishment of project management approach as quoted 'for this project and the future projects is to have a holistic approach to project management to oversee the whole project' (P: 3 in the Sohar MSC Report in **Appendix 2**) and '*setup a project management organization to facilitate the project coordination process and to allocate priorities*' (P: 20 in the Sohar MSC report in **Appendix 2**).

The external interviews revealed that project management processes were used only as a planning and controlling tools for individual project but not as a management system to implement strategies. Therefore, the new EPMM was the first model to make use of project management tools as a strategic implementation tool.

The main aim of the Enterprise Project Management Model (EPMM) was to fulfill the gaps identified from the field investigation (document analysis and Interviews-1) in the sponsor organization and to link strategic development and planning with implementation. In doing so, the model would solve the problems faced during the execution of projects and which were identified through the internal interviews (Interviews-1), such as:

- The model should enhance the communication between the end users within the sponsor organization, (Theme-1)
- It should manage the projects as an integrated process that covers all of the project's lifecycle from initiation to close-out, (Theme-2)

- The model should be based on standard project management standards and should be documented, (Theme-3)
- The project requirements should be integrated well during the concept phase of the project to ensure that all the requirements from all stakeholders are met, (Theme-4)
- It should provide clear lines of responsibility between the different departments within the sponsor organization (Theme-5),
- It should emphasize on the feasibility study during the concept phase of the project (Theme-6).

8.4 Description of the EPMM

8.4.1 Main Concepts

The EPMM is based on two main concepts as shown in Figure 8-1:

1. The main stakeholder for strategic directions is the customer, and customer behaviour will determine the strategic initiatives, then, the model would link strategic planning process with the project implementation process. The point of such a link is projects, and they need to be controlled by a performance management system.
2. Intended strategies are those planned in the regular planning cycle, which lead to deliberate strategies, but the emergent strategies are those which appear during the execution phase of the intended strategies, and need to be taken into account (Mintzberg, 1979). Also, emergent strategies can be considered as the most important ones in the telecommunication industry due to the fast changes in its technology cycle. Because of the cost of changes during the execution process is higher than other processes like the initiate and plan.

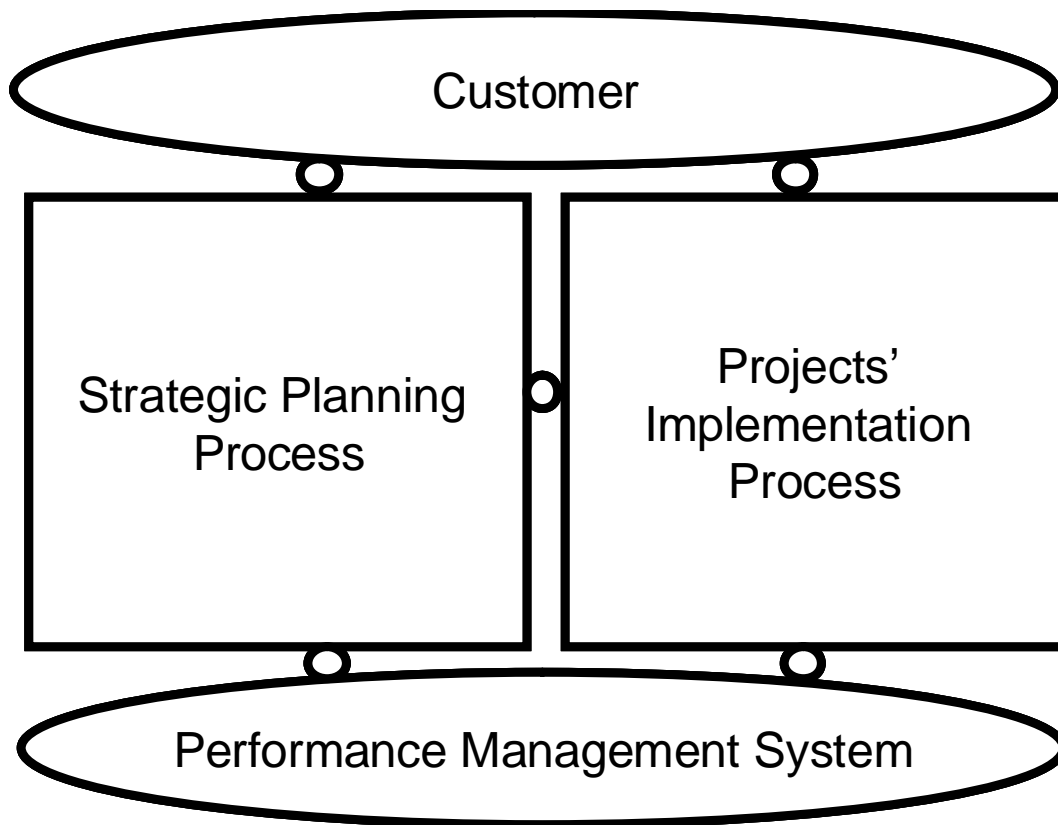


Figure 8-1: The Components of the EPMM

The emergent strategies were important to be accounted for during the strategic implementation cycle, because they might introduce new concepts that were not possible to arrive at them during the intended strategic planning phase. Therefore, in the EPMM, the emergent strategies' process was separated from the intended strategies, but both were linked to project management process at the execution process, please refer to point A, in Figures 8-3 and 8-4. Also, the Emergent strategies were triggered by the customer or market behaviour, through service need statement. Then, the service need statement was translated into technology solution. After that, it would be assessed for its relevance with (intended strategic plans) and its criticality to the business, if found satisfactory, would go through the remaining of the projects' implementation process.

Process decomposition involves breaking the process down into levels of granularity with the lower level is task (Lee, 2002).

The EPMM was structured on four levels: phases, processes and steps and below the steps are activities, as indicated in (figure 8-2).

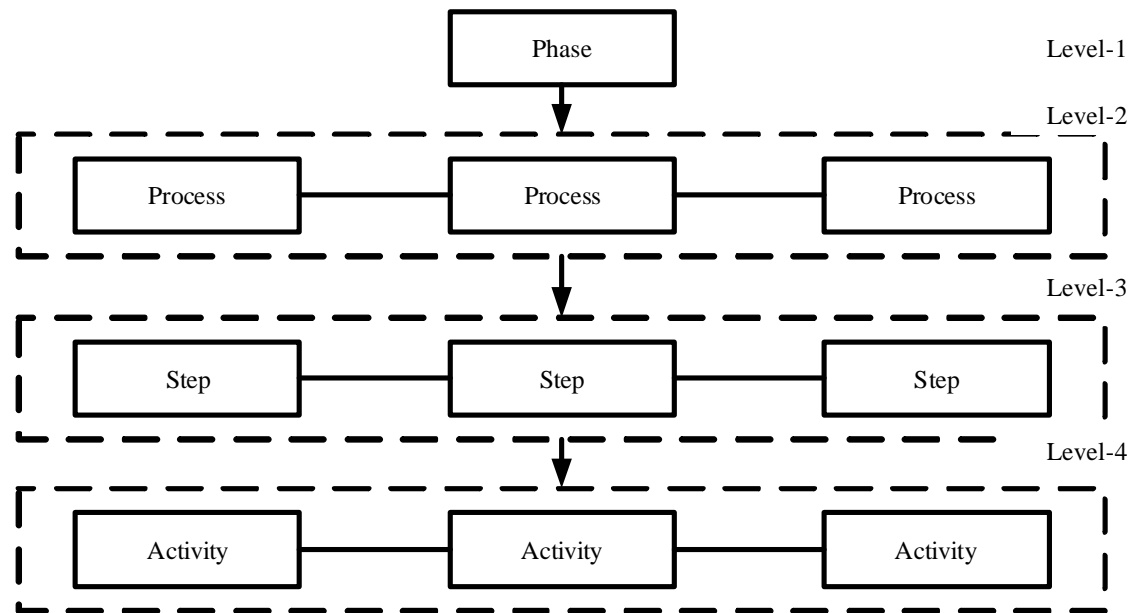


Figure 8-2: Levels of the EPMM

Figure 8-3 next page, shows the two main phases of the EPMM, namely: strategic planning phase and project's implementation phase. The strategic planning phase contains seven main processes, and the projects' implementation phase has five. Also, in figure 8-4, the emergent strategies' process is shown.

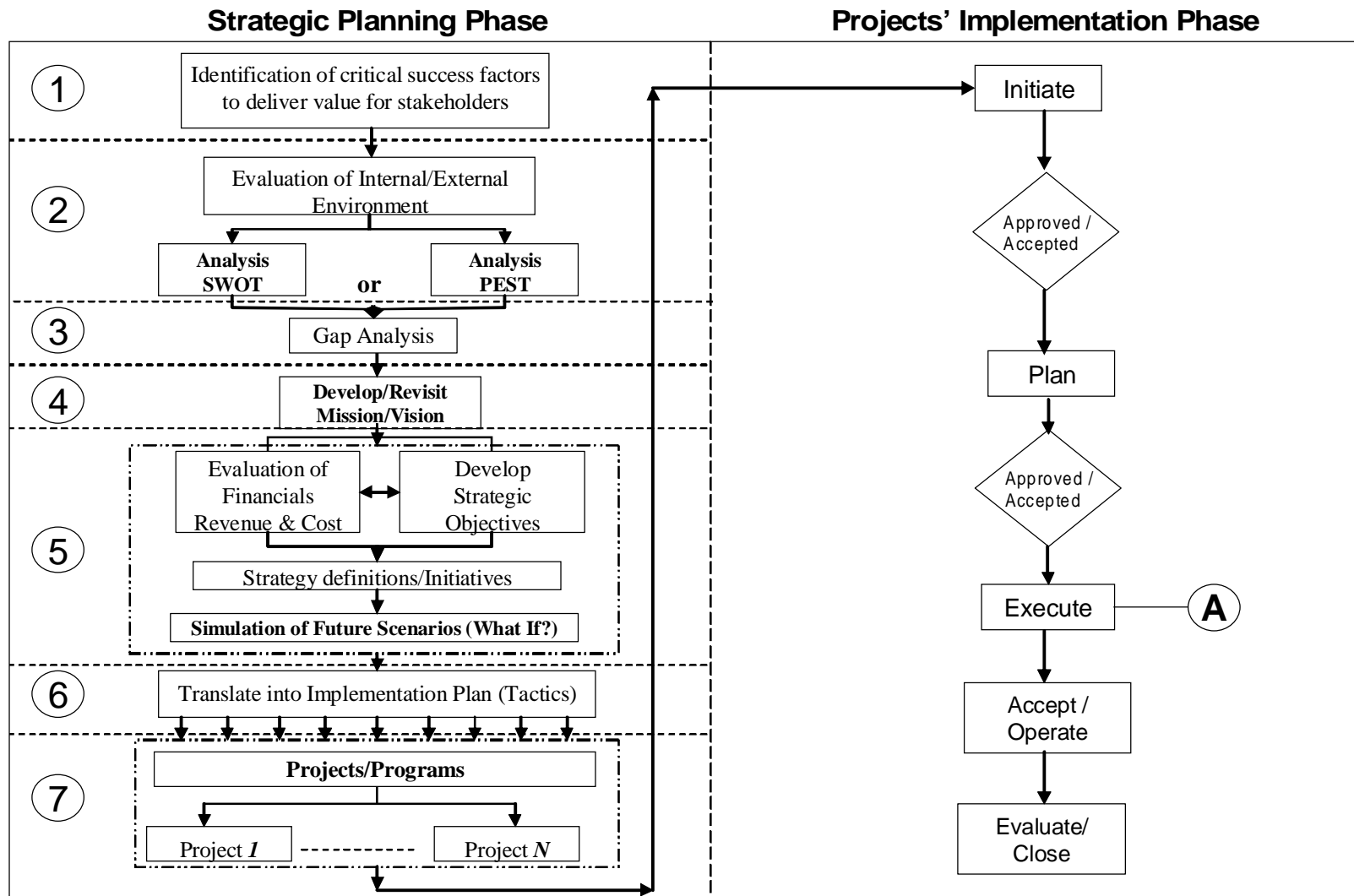


Figure 8-3: the EPMM (Deliberate Strategies)

Emergent Strategies- Telecom Based

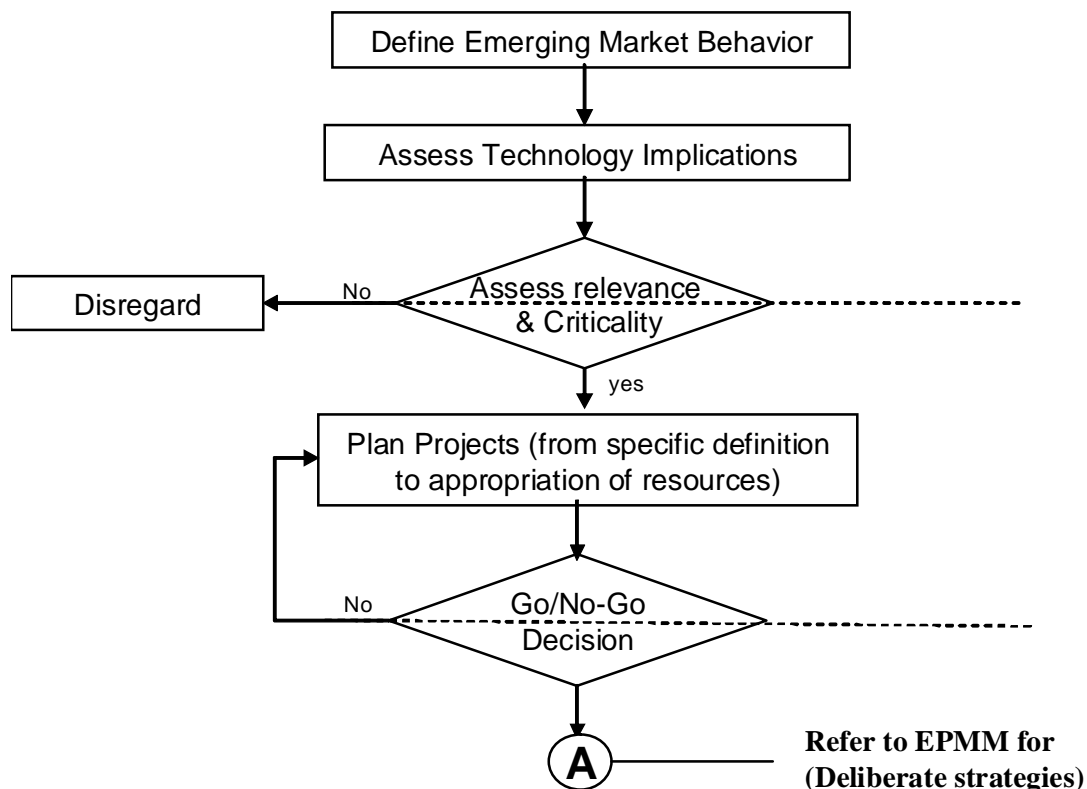


Figure 8-4: the EPMM (emergent strategies)

8.4.2 Validation of the EPM Model

During the building phase of the model, it went through different stages of alterations before arriving at its final structure as in Figures (8-3, & 8-4), based on discussions and comments received from practitioners and academics in the field. The model was discussed with three experts: a Strategic Planning Consultant, a Strategic Advisor, and a Professor of Project Management. The main points raised by each one of them can be seen in **appendix 5**. One sample of the comments received is shown in the next page with a well known professor in the field of project management. His comments on the model were that, the model is soundly based on the literature, and its application in practice needs to be further investigated. The investigation of the EPMM and evaluation of the outcomes were part of this research design, and will be presented in the next chapter.

Interview Format

Name	<i>Peter W. G. Morris</i>	Interview No.	
Position	<i>Professor of Project Management</i>	Date:	<i>18 February 05</i>
Organization	<i>University College London</i>		

Objective of Interview:

The main objective is to obtain an opinion from the interviewee on the Enterprise Project Management Model (EPM) as to the usefulness of the model in executing strategies.

Main Points from Interview :

Rashid's model is cogent and soundly based on the literature. I would like to see how it, or variations of it, might be applied in different organizations, and how any variations could be explained in terms of the literature.

Implications for the Model:

Very sound. Its application in practice should be investigated.

The Strategic Planning Consultant provided the following comments: (1) the strategic planning process must integrate a financial forecasting module that yields the medium term financial plan (this was reflected in step 5), (2) the formulation of strategic objectives should be carried down, explicitly, to the level of strategies definition and initiatives (reflected in step 5 after the evaluation of financials and the development of strategic objectives, the strategies' definitions and initiatives are developed), and (3) the capture of emerging strategies could be revised to reflect the steps shown in Figure 8-4 above. The main comment from the Strategic Advisor was the need to develop a performance management system that link organizational units, individuals

and projects through the use of the Balanced Scorecard (this was reflected during the development of the performance management system, refer to Figures 8-6 and 8-7).

8.4.3 Phases and processes of the EPMM

In the strategic planning phase, there are seven main processes:

1. Identifications of the critical success factors to deliver value for stakeholders,
2. Evaluation of the external and internal business environment,
3. Identification of the gap between the organization's existing and the required competencies and skills,
4. Revisit the existing mission/vision/strategic objectives to create best value for stakeholders,
5. The new strategic objectives will be reviewed against financial cost and revenue analysis, also, they will be tested in a controlled environment utilizing 'scenario planning' technique,
6. The corrected or updated strategic objectives will be translated into initiatives by each functional department, then each initiatives will be further translated into programs or projects,
7. To ensure successful implementation, each program will be divided into projects; this step is the last in the business planning phase and forms the inputs for the project implementation phase.

The projects' implementation phase contains five main processes:

1. Initiate
2. Plan
3. Execute
4. Accept and operate
5. Evaluate and close.

The following sections will discuss each process separately.

8.4.3.1 Strategic Planning Processes

The processes in the strategic planning phase were conducted using a 3-day workshop (4-6 April 2005, the documents for the workshop are on **appendix 6**) involving participants from all levels of the sponsor organization, starting from the Chief Executive Officer, the Vice Presidents, Division Heads, and Directors and Managers. Also, Advisors, Engineers and Senior Engineers were invited to this

workshop. The workshop was facilitated jointly by an external facilitator and the researcher as the chairman of the event organizing team (The letter that support this can be found in **Appendix 6**. As part of the action research process, the intervention between the researcher and the management team of the sponsor organization during the workshop made the researcher to specify the main goal of the research that to develop an Enterprise Project Management Model (EPMM) to implement strategies using project management processes, which was the same as the one for the sponsor organization. Therefore, the workshop supported the steps specified in Figure 8-3 for the Strategic Planning Phase. Creswell (2003: 188) recommended the use of an ‘*observational protocol*’ for recording observational qualitative data. The observational protocol, according to Creswell (2003) contains two parts: *descriptive notes* (portraits of the participants, a reconstruction of dialogue, a description of the physical setting, accounts of particular events, or activities) and *reflective notes* (the researcher’s personal thoughts, such as speculation, feelings, problems, ideas, hunches, impressions, and prejudices). For this research, this information can be found in **Appendix 6**, and the *descriptive notes* of the workshop are as per the following:

In the workshop, more than 50 people from the sponsor organisation (Omantel) as well as its subsidiary (Oman Mobile) participated. The objectives of the workshop were set as to (refer to **Appendix 6**):

- Articulate a clear and focused strategic direction for Omantel, including vision, mission, corporate objectives and strategic priorities
- Enhance Omantel and Oman Mobile competitive readiness
- Anticipate competitor’s entry strategies and identify levers impacting Omantel’s business and financial performance
- Test Omantel’s and Oman Mobile’s defence strategies
- Align Omantel and Oman Mobile to common objectives
- Foster cross-functional information sharing and brainstorming
- Allow interaction among managers from different businesses, functions and levels
- Generate and test innovative ideas in a risk free environment
- Enhance awareness and understanding of successful incumbent strategies

- Develop a perspective on how international and regional Telecommunication operators are addressing challenges relevant to Omantel
- Review best strategic and operational practices that successfully overcame these challenges

In the preparation for the workshop, documentations were prepared and presented involving analysis of Omantel current situation (split into Financials, Customers, Processes & Organization and Strategic Assets). Papers were prepared and presented on 5 themes (Achieving business sustainability, Technology Trends, Regulatory Trends and Challenges, Telecommunication company's Operating Models and Disruptive Concepts). A Strength, Weakness, Opportunity, and Threats (SWOT) analysis was conducted during the workshop leading up to a common exercise to establish Vision, Mission, Values and Strategic priorities. A war game, similar to scenario planning (with teams of Omantel and Oman Mobile managers,) was conducted simulating competition between two mobile operators (Oman Mobile and the competitor company, Nawras) and two fixed operators (Omantel and other operator Batelco). The war game (scenario planning) was conducted for three rounds reflecting years of operations. The outcome of the war game, including lessons learnt was documented and shared with all participants. The SWOT analysis exercise was based on four main areas: financials, strategic priorities, market facing, and internal business processes. Then, each area out of the four was divided into further sub-dimensions, as follows:

Financial area was divided into:

- Growth agenda (overall market growth opportunity and comparison with international benchmarks,
- Operational efficiency (like OPEX ratio and profit margin),
- Investment efficiency (asset utilization),
- Financial transparency and risk management.

Strategic resources area included the following sub-dimension:

- Operating model (current organization structure and compared benchmarks with international operators),
- Human capital (cost of human resources),
- Network infrastructure (the established telecommunication network and technologies),

- Information Technology (IT), (current IT systems).

Market facing had the following sub-dimensions:

- Segmentation, service offerings and pricing (segmentation approach)
- Branding and communication (branding and communication strategy)
- Sales and distribution (description of Omantel distribution direct and indirect channels),
- Customer service (level of customer service measured by KPI's),

Internal processes included the following sub-dimensions:

- Network and IT processes
- Planning and support processes (like procurement processes, fund allocation processes, strategic and business planning processes, and project management processes),
- Product development and management processes (product development processes),
- Market facing processes (marketing and sales processes).

The participants were divided into groups and each group was asked to think about strengths, weaknesses, opportunities and threats in relations with the four areas as described above. Then, all the findings from the different groups were scored by voting and the items with the highest scores were selected for further analysis. Figure 8-5 shows the template used for the SWOT analysis exercise.

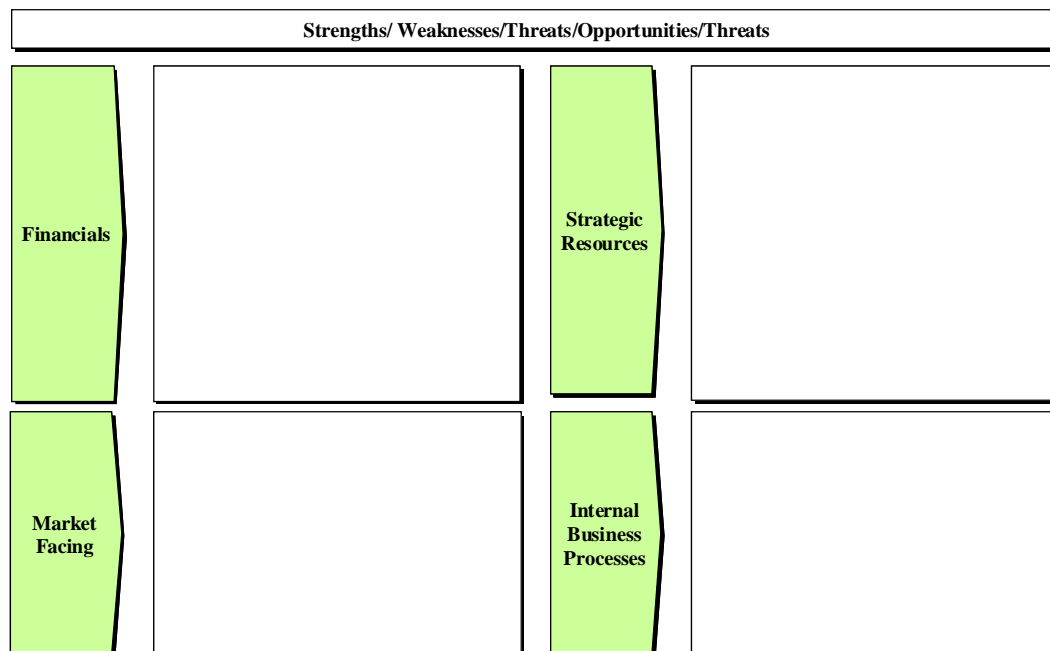


Figure 8-5: SWOT Analysis Template

After the SWOT analysis exercise, mission, vision, and values statements were agreed upon. Also, seven strategic priorities were identified to be cascaded down into functional objectives. The strategic priorities were tested in a control environment using the scenario planning or the war game. The war game process started by dividing the participants into six groups representing: the sponsor organization, Oman Mobile, a Mobile competitor, a fixed service competitor, the market, and the regulator. The environment simulated the actual business environment in competition. Then each group was asked to prepare strategies based on information given by the facilitator, then each group was asked to present to the market group, and the market group made judgment on the performance and reported to the regulatory team. The performance was reflected financially. This exercise was repeated for three times. Then, based on the results of the war game exercise, the strategic priorities were adjusted and finalized as well as the mission and vision statements (they are shown in **appendix 6**). Each strategic priority was translated into functional objectives and then the objectives were further translated into projects and programs. For instance, one of the strategic priorities was; *'Achieve leading revenue growth in a profitable fashion'*, this was translated by functional objectives by *'maximize penetration of mobile services, and mitigate potential impact on Average Revenue per User (ARPU) dilution'*, and this functional objective was further translated into wireless expansion projects in various areas in Oman. The EPMM was used to ensure that the strategic priority was achieved through effective project management implementation and performance management system that link the corporate strategies and the functional strategies with individual targets.

The business planning process was linked to performance management process, as shown in figure (8-6). As shown in the figure, the strategic planning process feeds in the functional strategies after negotiating the budget for each strategy implementation. Then, each strategy was translated into targets for each unit, which would cascade the targets into employee targets within the unit based on functional specialization. The agreed target would be filled in electronically into the forms and templates shown in figures (8-7), and then signed between the employee and the immediate supervisor.

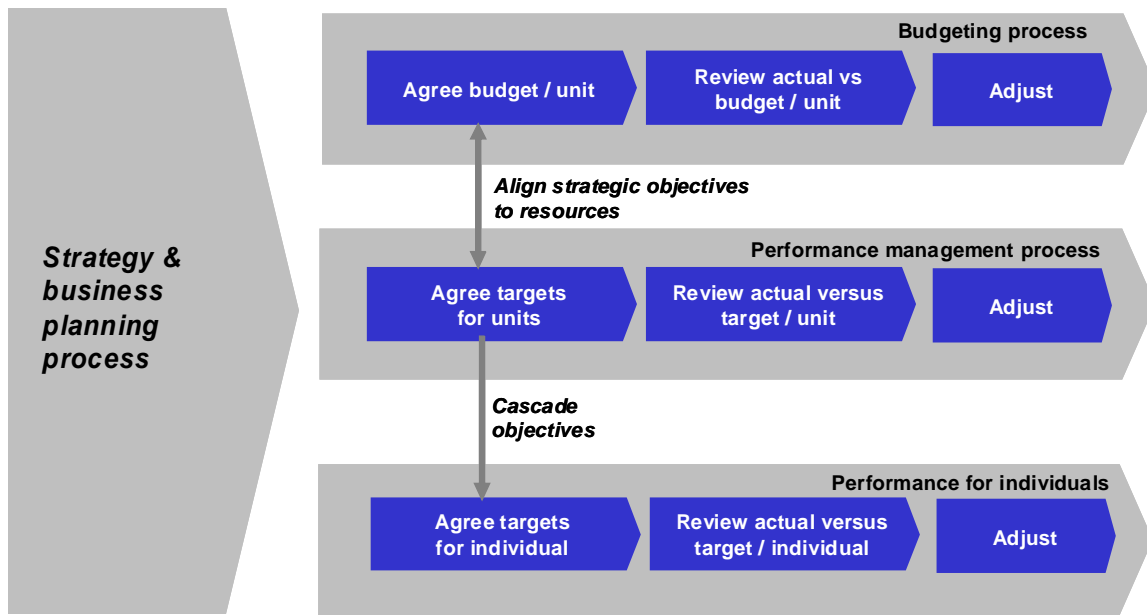


Figure 8-6: Omantel Performance Management Process

This step of performance management completes the strategic planning process. The next section will analyse the typical projects' implementation processes of the EPMM.

On-going KPI's

#	KPI	Description	Target	Q1/actual			Q2/actual			Q3/actual			Q4/actual			Frequency of reporting (Y/Q/M)	Responsible to achieve	Data source	Balanced scorecard
				J	F	M	A	M	J	J	A	S	O	N	D				

Initiatives

#	Initiative	Start date	End date	Q1	Q2	Q3	Q4	Responsible to achieve

Figure 8-7: Performance Reporting Templates

8.4.3.2 Projects' Implementation Processes

As shown in figure (8-3), the project management phase was divided into five main processes, namely: initiate, plan, execute, accept and operate, and evaluate & close. Then each process is further divided into steps. The projects' implementation phase was designed in accordance to the Project Management Institute Body of Knowledge (PMIBoK, 2000), and the Association for Project Management Body of Knowledge (APMBoK, 2000). The following section will explain in details each process and its corresponding steps.

Initiate

For every project, there is a beginning. It evolves from a need within the organization. This need ultimately determines the scope of the project. The initiation process has two main steps: strategic alignment, and project initiation. The strategic alignment step is where the opportunity is analysed based on the preparation of the project business case, which involves the initial identification of the: Project Opportunity, Project Scope, Project Initial risk assessment, and Project Evaluation and control. The Project Opportunity and Risk Assessment are designed to support the assessment of the project's viability before committing any resources. The project initiation step deals with formally authorizing a new project. This formal initiation links the project to its need within the organization. The initiation of the project requires signing a project charter. A project charter is a document that formally authorizes a project. It includes, either directly or by reference to other documents, the following information:

- The appointment of the project manager and other key personnel, this is an important step because it links the strategic planning with implementation.
- A reference to the business need that the project is undertaken to address
- The Provision of clear details about the service description – these details should be sufficient to support later project planning.

Also, within this process, the new appointed project manager needs to develop a baseline for project cost, time and quality. The input to the baseline will from the initial brief from the client. The project management plan is the document that specifies the tools and techniques on how to manage: time schedule, cost, quality, human resources, contract issues, scope change management, communication among

the various stakeholders, and risk and value management. Figure 8-8 summarizes the initiation process with its steps.

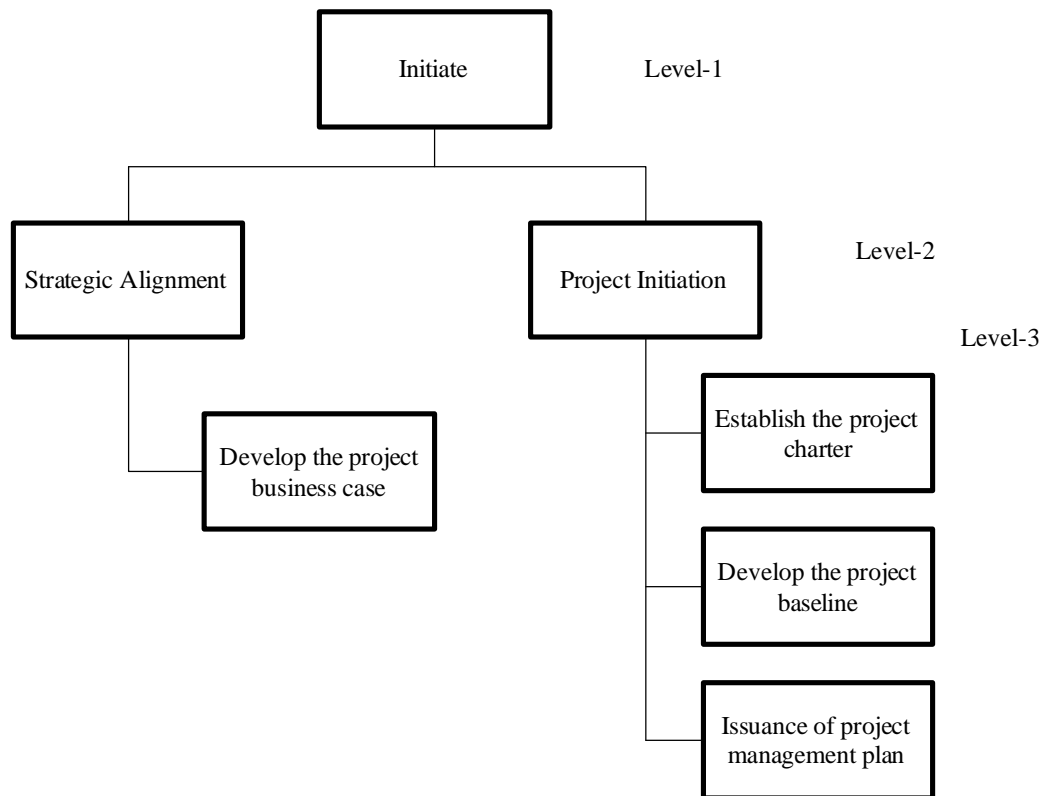


Figure 8-8: Initiate process

The pre-project planning through the alignment of the scope of the project with the overall business need was emphasized, as critical factors that impact project success, by Sherif & Price (2000), as they argued that *'effective pre-project planning can improve project performance and significantly impact upon project outcome'* P: 84.

Plan

After appointing the project manager and team members, the team will start planning its actions. Such actions include: design development and tendering the actual work packages. The design development involves steps such as: prepare the design request for proposal or (RFP), consultant prequalification (this is done by preparing criteria for selecting consultants such as: level of experience in the field, then this document is sent out to consultants for submitting their prequalification document and the client scores him against the criteria set), consultant selection and design contract signature,

manage the design process, develop project specifications and standards and update the project baseline (update project cost, time and quality baseline and the baseline includes the project communication plan, the project risk management plan by developing risk register that include a list of all anticipated risks and their mitigation strategies, & the project change management plan). Figure 8-9 shows the details. The tendering process includes: deciding on what mode of procurement (open or direct request), floating the tender, tender analysis and evaluation, selection, negotiation and contract award, and update the project baseline. The tendering steps deals with acquiring quotations for procuring the services mentioned in the scope of work. Figure 8-9 shows the planning process with its steps and sub-steps.

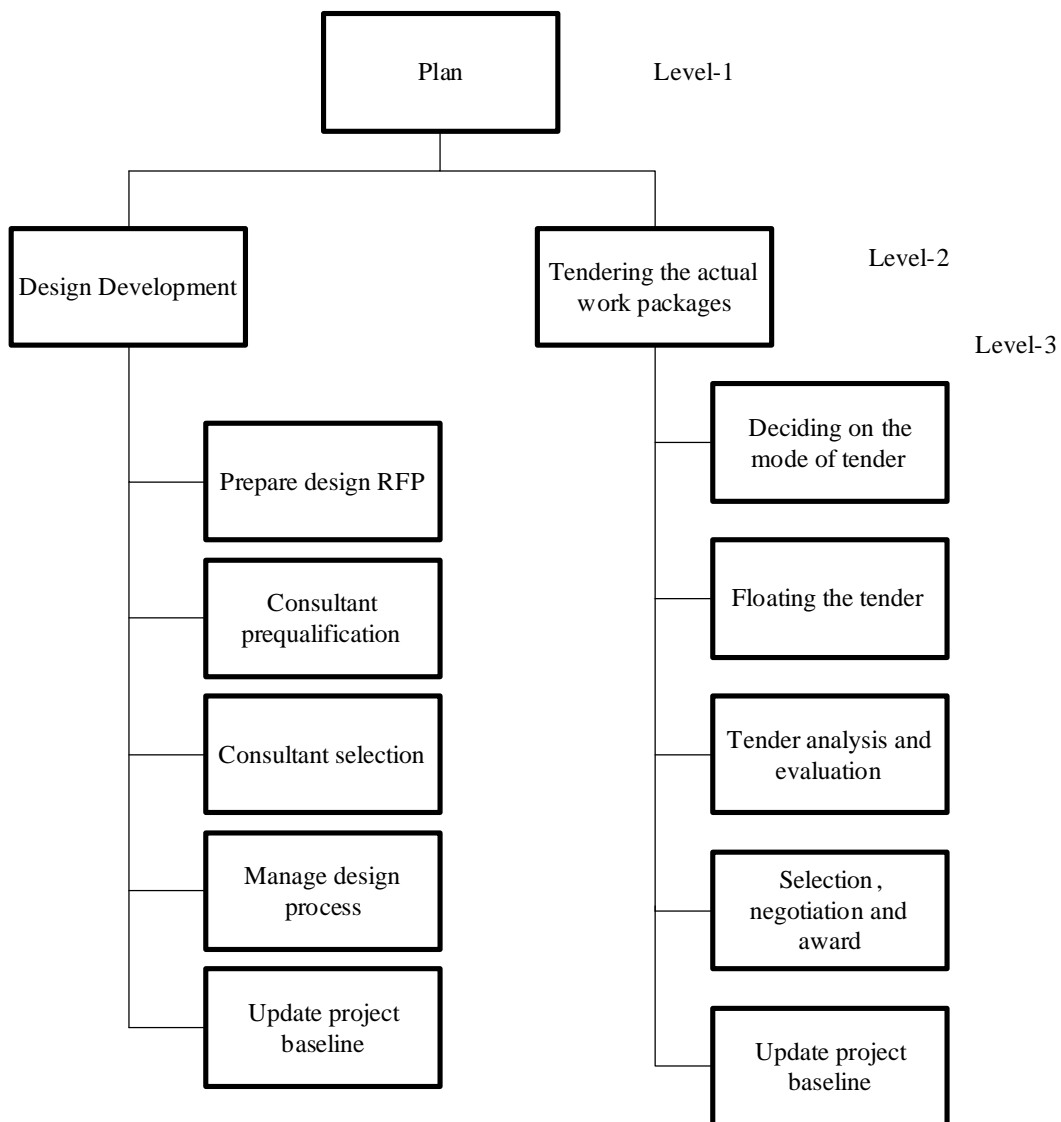


Figure 8-9: Plan process

Updating the project baseline allows the project manager to assess how the project has evolved, and allows how to define new courses of action and to reflect on the original methodology used in project development. It also provides a project history, so that if there is a change in the project personnel, the new comer can learn the project faster by going through this document.

Execute

The Execution process is about coordinating people and other resources to carry out the plan of work. It includes the steps that are required to meet the project objectives by monitoring and measuring progress regularly to identify variances from plan so that corrective action can be taken when necessary. In this process, the project plan will be carried out and the project performance is evaluated regularly to satisfy the relevant quality standards.

In this process, the following steps will take place:

- Contract kick off meeting (In this meeting, the project stakeholders have to attend and the agenda will identify the responsibilities and roles for each member and define the communication plan. In addition, the project scope will be clearly communicated with all the constraints and time schedule indication. A summary of the project deliverables will be discussed).
- Execute the project change management process (if major changes are requested by the project stakeholder and they alter the original project scope, then, the project team will need to execute the change management process which will identify the approving authority for the changes requested and it will define the alteration to the original project's deliverables).
- Manage Project Schedule (managing any alterations that could affect the original project schedule)
- Manage project budget (controlling the budget on the project to meet the agreed target cost, it is usually accomplished by performing earned value analysis that compares the amount of money spent with the actual work performed on site).
- Manage people issues (manage the communication and the human resources within the project, the project manager's challenge is make the team motivated always and keep them focused on the key deliverables).

- Contract Administration (it is about ensuring that the contract obligations are fulfilled, it is also about the control of contract performance)
- Execute risk management plan (the project manager always needs to keep an eye on the risk register developed during the initiation process and updates it)

Figure 8-10 shows the details of execute process.

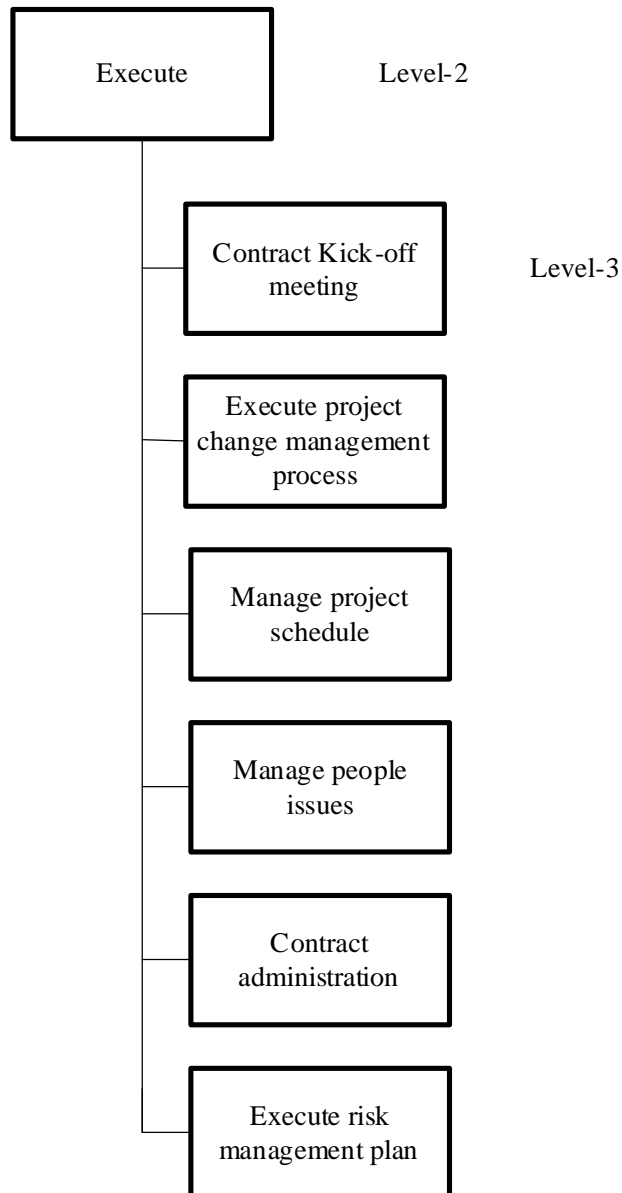


Figure 8-10: Execute process

Accept and Operate

This process has one step and that is the close-out of the project, (as shown in figure (8-12)).

The close-out step requires the project manager to formally accept the project and to bring it to an orderly end before handing it over to the operation team or the client. It consists of three activities:

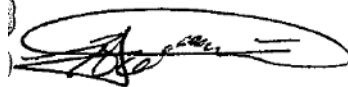
1. Establish project acceptance process, which deals with the preparation to hand-over the project to client. The process involves conducting review sessions with the client to go over the agreed and the actual deliverables.
2. Archive project information: the project manager in this activity needs to document all plans, specifications, technical documentations and drawings and archive them in a shared drive.
3. Administrative close-out: this is concerned basically with getting the necessary approvals, based on the company's authority manual, on the provisional acceptance certificates (please see sample in figure 8-11 below) and announcing that the contract is closed.

Provisional Acceptance Certificate					
Title of Project		Expansion of GSM Network in Muscat Governorate (Phase 6)			
Contract Number		2003 111, Stage 4			
Finance Ref:		PF / A048A-4			
PAC Number		M 60 / 2005			
Sites and Value		Materials		Installation	
Sl no	Site name	Contracted Value US\$	As- Built Value US\$	Contracted Value US\$	As- Built Value US\$
1	Various GSM systems (Details are attached as annexure to this document)	1,728,871.92	1,666,917.36	1,792,393.67	1,728,590.26
System		GSM System			
Effective Date of PAC		11 th February 2005			

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby provisionally accepted.

This Provisional Acceptance Certificate (PAC) is issued with effect from 11th February 2005.

Regards,



Bernhard Van der Merwe
Network Head Division



Figure 8-11: Sample of provisional acceptance certificate

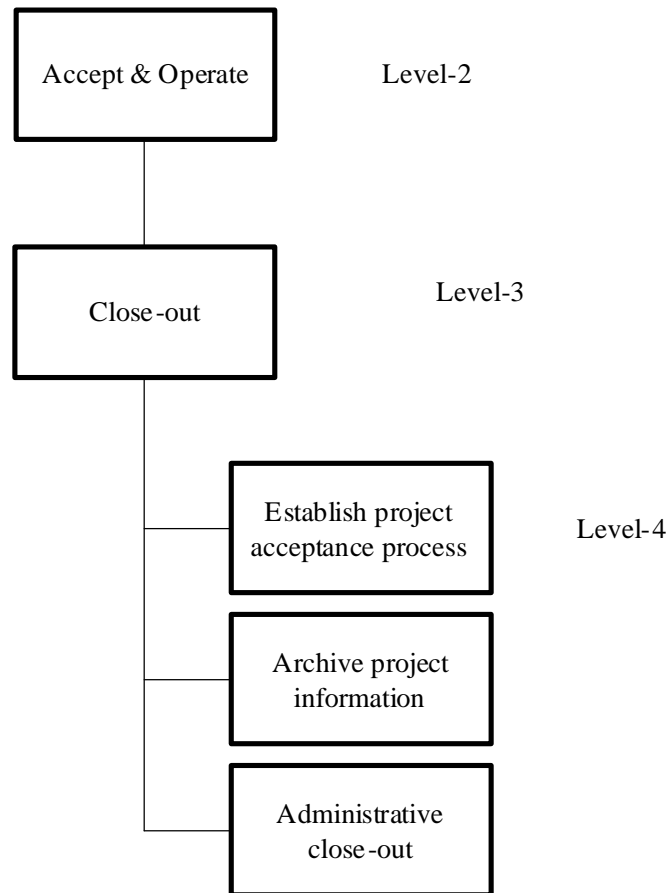
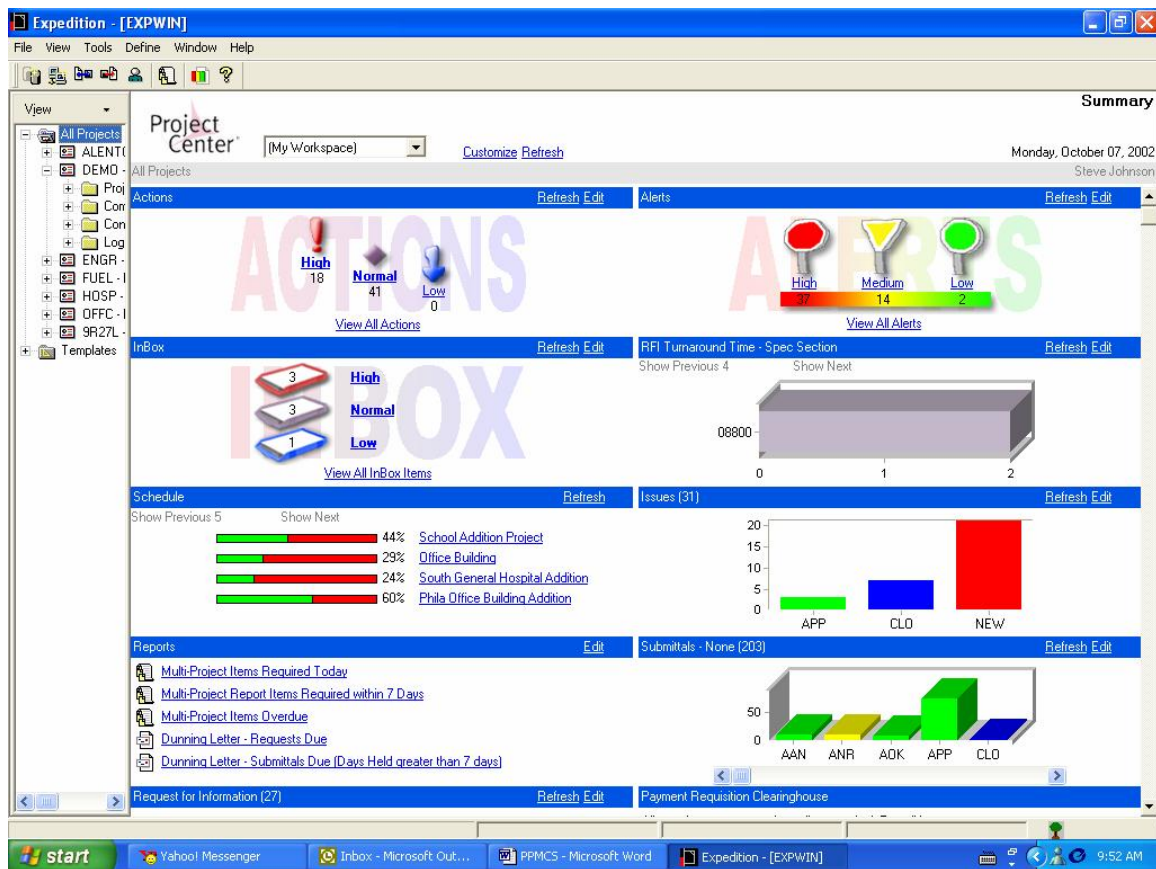


Figure 8-12: Accept & Operate process

Evaluate and Close

This process is the last process in the projects' implementation phase and has two steps the internal review and final acceptance of work. In the internal review, a session is arranged where the main stakeholders are invited to attend a 'lesson-learned' presentation conducted by the project team to go through the issues and concerns they faced during the execution process. The objective of the presentation is to identify and transfer the knowledge from the project to the organization so that it becomes corporate knowledge. Then, all project records are placed in a shared drive for the use of other project teams. The sponsor organization uses documentation software (Primavera P3e expedition). The P3e software provides the project managers and contract administrators with a system that ensures that all project

information and documents are linked to critical issues and are available on demand to all project stakeholders, sample of the main window for Expedition software is shown in figure (8-13) below.



(Figure (8- 13): Sample of Expedition main window used in the sponsor organisation)

Also, the Expedition software enables efficient collaboration throughout the review and approval process of the project. Such software, also, delivers a comprehensive solution for multi-user, multi-projects, and multi-site environments. It also offers multiple languages and multiple currencies. The database enables an organization to group, analyze and compare project performance by projected costs, region, and project manager. Also, in this step, the project manager must transfer the warranty terms to the operation and support teams to follow up with the contractor as per the contract liabilities.

The final acceptance step is about accepting the final work after the expiry of the warranty period. After the warranty period, a final acceptance certificate is signed as per the sample shown in Figure 8-14. Unlike the provisional acceptance certificate, the final acceptance certificate is signed by higher authority or the person who signed

the contract, because it represents the final close-out of the contract. Figure 8-15 summarizes the steps involved in the evaluate/close process.

FINAL ACCEPTANCE CERTIFICATE	
Title of Project	Expansion of GSM Network in Muscat Governorate Phase 6 (Stage-PF A048-1).
Contract Number	Contract 2003 111
Finance Reference No.	PF-A048-1 (Stage-1)
F.A.C. Number	M 39 /2005
System	Stage 1
Site / Link Name	GSM
Effective Date of F.A.C.	12.02.2005

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby finally accepted. This final acceptance certificate is issued with effect from the above mentioned date.

Regards,



**Dr. AMER AWADH AL RAWAS,
MANAGING DIRECTOR.**

cc: GMES



Figure 8-14: Sample of the Final Acceptance Certificate

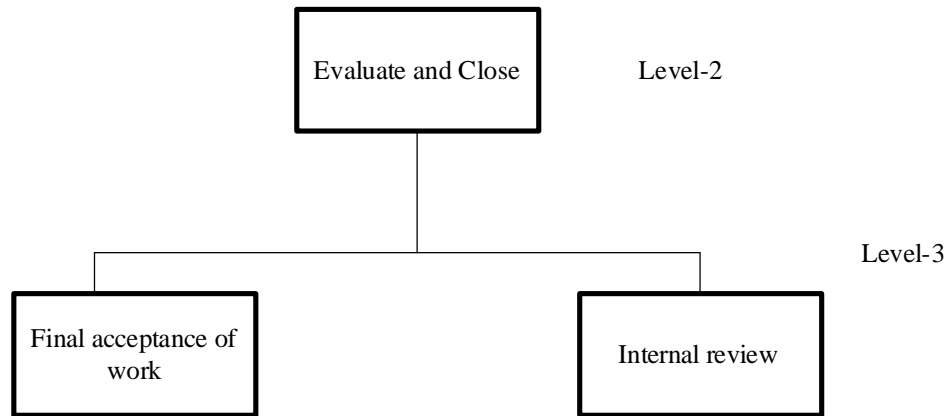


Figure 8-15: Evaluate and close process

8.4.3.3 The Process of Emergent Strategies

For its importance, the process of capturing emergent strategies has been placed in a separate process chart in the EPMM. As it has been discussed in chapter three, the process of strategic formation should be based on flexibility and experimental applications to move from broader concepts to specific commitments, and the strategic decisions should be made at the last possible moment, to allow for the maximum input from the environment and account for it (Quinn, 1995). This requires organizations to keep the door for new ideas always open. The process of emergent strategies in the EPMM starts with defining the emergent market behaviour (the marketing research & intelligence teams always investigate the market for new opportunities through launching new products and services) as shown in Figure 8-4. Before deciding on an opportunity, the marketing team will conduct an opportunity evaluation. The evaluation can be done using a questionnaire distributed to the product development team in the sponsor organization. The questionnaire will ask the respondents to score the opportunity in terms of its growth, relevance, associated risks, and the disturbance it will make to the existing flow of work. Then the final score will be calculated to arrive at a recommendation on whether to proceed or disregard. If the decision from the product development team was to proceed, then the new opportunity will be presented to the management team of the organization to make its final recommendation to proceed or not. After, the decision from the management team, the opportunity will be transferred into a project and it will be

managed using the projects' implementation processes. Figure (8-16) shows the criteria which have been set by the Board for investigating new investment opportunities in the region and globally. There are six criteria for deciding upon a potential business opportunity: the growth opportunity, profitability calculations, synergy potential, risk level, the business scope (is it within the core business or not?), and ownership (for opportunities within Oman, Omantel has to keep minimum of 50% share, for other opportunities the ownership shall not be less than 25%).

Growth opportunity	<p>Sizable opportunity to compensate for revenue gap, ie >10 MRO in 5 years</p> <p>Service business with positive growth, ie more than +5% per annum</p>
Profitability	<p>Acquisitions: Profitable on stand-alone basis in 3 year time horizon</p> <p>Greenfield: Profitable on stand-alone basis in 5 year time horizon</p> <p>NPV positive (acquisitions + greenfield)</p>
Synergy potential	<p>Opportunities for complementary synergies with Omantel existing businesses</p> <p>Revenue, OPEX, CAPEX synergies</p>
Risk level	<p>Premium associated with the investment risk (industry, political, ...)</p> <p>Ability to manage associated risks (competency, partners, ...)</p>
Business scope	<p>Core + related telecom services</p> <p>Oman market + (extended) GCC region</p>
Ownership	<p>Related telecom services in Oman (aiming at ≥50%)</p> <p>Core telecom services in extended GCC region (aiming at ≥25%)</p>



Figure (8-16): Investment Criteria in the Sponsor Organization.

8.5 Summary

This chapter presented the Enterprise Project Management Model (EPMM) with all its concepts, phases, processes and activities involved. The EPMM was based on two main concepts: the focus on the market demand and customer behaviour and accounting for the emergent strategies by keeping flexibility in the planning process. The model was divided into two main phases: strategic planning and projects' implementation. Each phase had several steps and activities discussed in details in the previous sections. The strategic planning phase was explored as a result of conducting a workshop, where the senior and middle management levels of the sponsor organization participated and the researcher was chairing the event organizing committee. The workshop was facilitated by an external facilitator. The outcomes of the workshop were that the sponsor organization established its mission, vision, values, strategic priorities and functional objectives. Then, the functional objectives were further translated into projects and programs to be executed using the projects' implementation processes.

The emergent strategies process was executed using the product development team who explore the market for new opportunities, and after scoring the opportunities, they will be presented to the management team of the sponsor organization to make the final 'Go' or 'No-Go' decision. The next chapter will report on the steps taken to establish the validity of the EPMM and its implementation in the sponsor organization.

Chapter Nine: Implementation of the EPMM

9.1 Introduction

Chapter eight presented all the phases and processes in the Enterprise Project Management Model (EPMM). This chapter focuses on how the EPMM was implemented on the sponsor organization. This step in the research study corresponds to the 'Evaluation and Specifying Learning' stage of the action research methodology as discussed by (Susman, 1983) in Chapter Six.

The chapter is structured in two main sections, namely: the model implementation, an assessment of its benefits, a discussion on the results of the post-implementation interviews and an analysis of the lessons learnt.

9.2 Model Implementation

An organizational environment helps to define the behaviour of employees in an organization. An organizational environment includes the elements such as: structure, people, culture, and incentives (Markides, 2000). The structure of an organization relates to the physical setup and the systems and processes that are used to support its strategy implementation. The culture of the company includes its norms, values, and unquestioned assumptions. The use of incentives can be the motivational tool for the employees. Incentives can be both monetary and non-monetary. The last element was people, their skills and capabilities. These elements are all necessary to understand and to ensure successful implementation of any organizational change such as the implementation of the EPMM.

Moreover, as it was discussed in Chapter Four, for an organization to implement a full-fledged Enterprise Project Management model, then few activities that require change, such as (Dinsmore, 1999):

- **Strategic Alignment:** it included review of mission and vision, stakeholder analysis, statement of enterprise project management policy, external influences, and positioning with respect to market competition,
- **Business Performance Objectives:** revalidates company objectives, setting of performance standards and ways of measuring them, operational premises, internal agreements, and result analysis,

- **Cultural Change:** involves redefining of company's values, and comparing the organizational climate now with the desired future climate (like from functional vertical into matrix horizontal authority, also changing the "I" to the "We" culture),
- **Communication:** enhancing more communication company-wide through encompassing effective communication strategies, and enhancing open channels,
- **People:** means team-building, training and development strategies, allocation and reallocation of people, evaluation of project management competency, development of new competencies, and competency based pay,
- **Management Requirements:** includes systems, roles and responsibilities, reporting relationships, processes, and organization design,
- **Technology Requirements:** the Enterprise Project Management Processes require sets of information (like Project related, resource related, portfolio related, task related, and organization related) and these information is created and/or used by various stakeholders in the organization (project managers, resource managers, team members, PMO staff and executives) in order to be effective, a technical system is required to support the EPM process.
- **Strong Executive Management Support:** to sustain the change effect and it can be obtained by demonstrating the added value EPM would bring to the organization.

The above mentioned elements were taken into consideration while implementing the EPMM within the sponsor organization. Also, they are explained in the following paragraphs by highlighting them in bold font.

The **strategic alignment** and setting up of **business performance objectives**, these two elements were accomplished during the three day workshop conducted during the period from 4th to 6th April 2005, and the results of the workshop was a newly established mission, vision, and strategic priorities the documents can be found in **Appendix 6**. The new mission, vision and values, and strategic priorities are shown in Figures (9-1 to 9-3).

Omantel Mission and Vision Statements

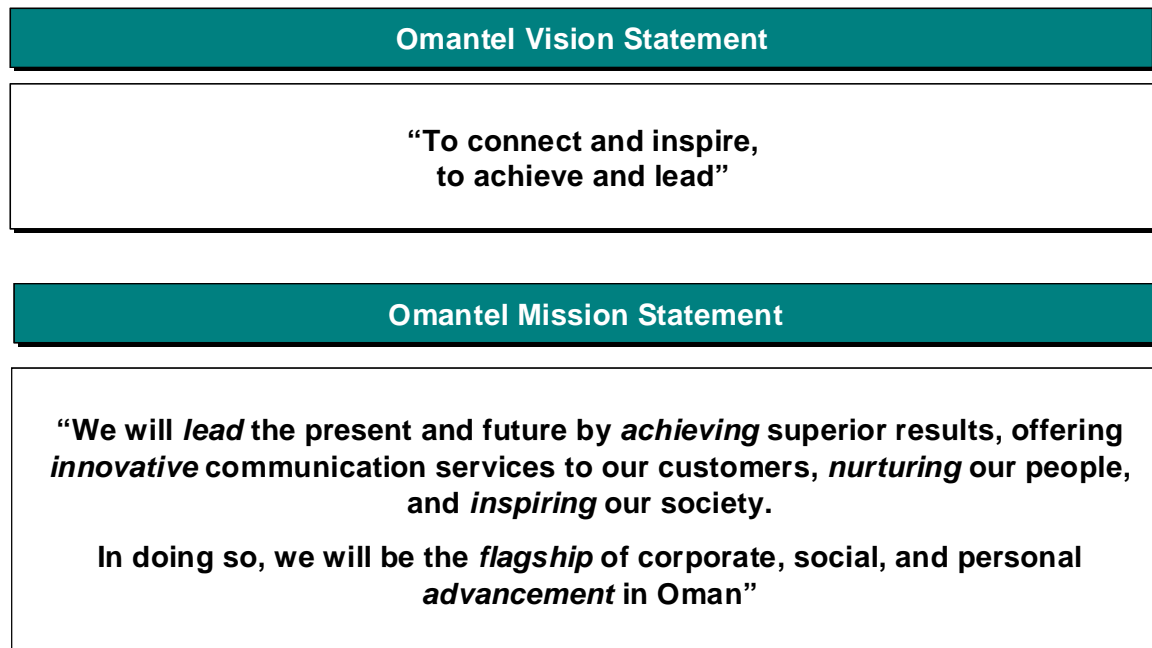


Figure 9-1: Mission and Vision of Omantel

Omantel Group Values

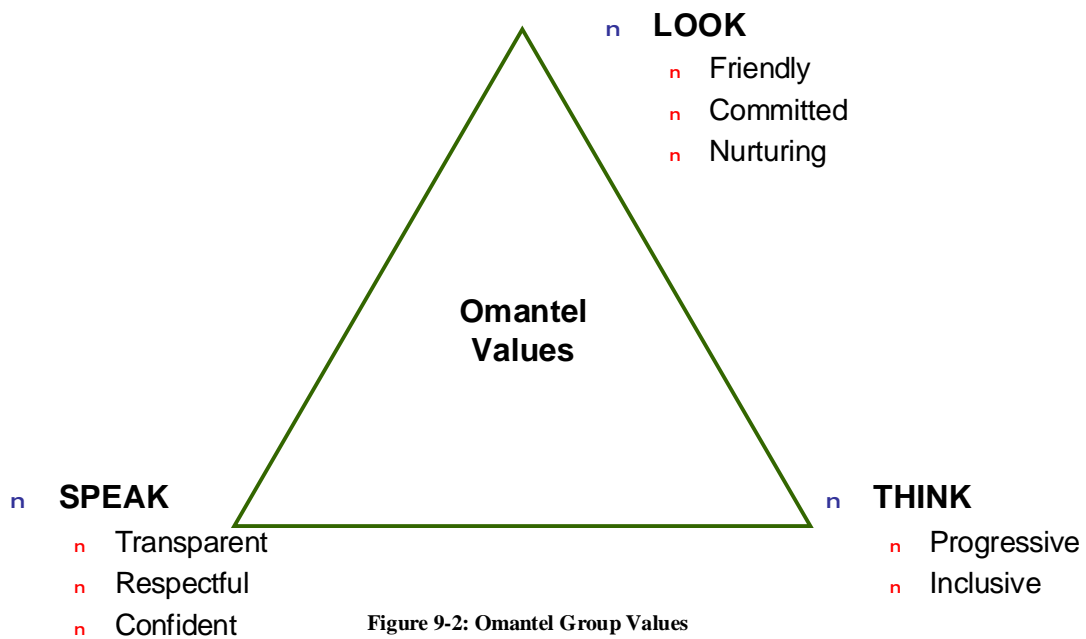


Figure 9-2: Omantel Group Values

Omantel Group strategic priorities

Figure 9-3: Omantel Group Strategic Priorities

The **culture change** was done within the sponsor organization through the establishment of the Project Management Office (PMO) for the first time in the history of the company; such an organization was created to report directly to the executive president as a sign of **strong executive management support**. The structure of the Project Management Office consisted of three main sections, project managers department, projects controls department, and administration and coordination section, as shown in Figure 9-4.

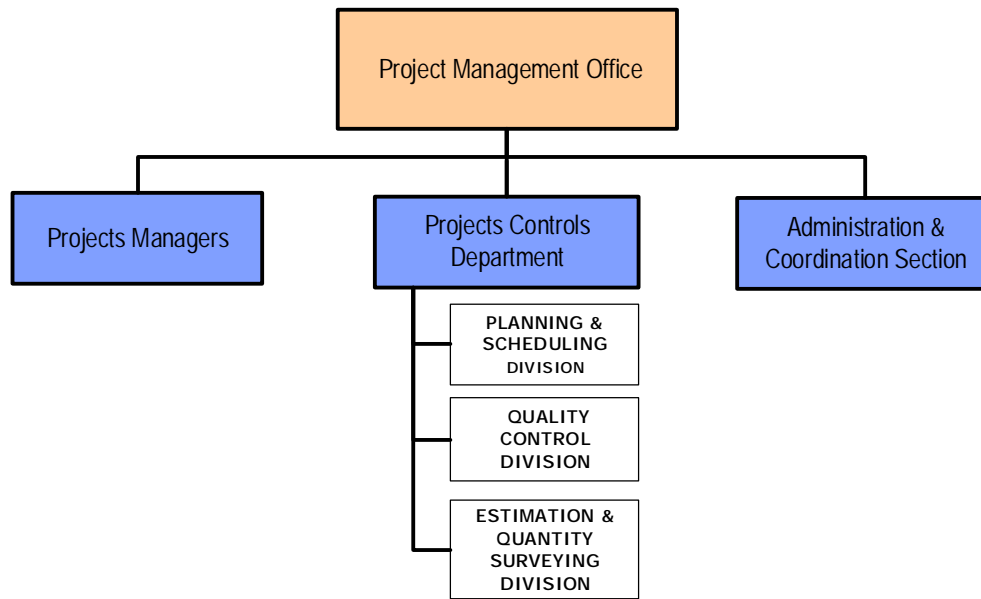


Figure 9-4: Organization Structure of the Omantel PMO

The main responsibilities of the PMO were established as follows:

- To develop and maintain a common methodology for project management with processes, templates and procedures,
- To enhance **communication** among various project teams,
- To setup a system (**technology requirements**) for managing projects planning and controls and documentation,
- To develop a career path and training curriculum to build core project management competencies within Omantel.

The project managers department was responsible for managing the delivery of Omantel projects against the defined objectives and defined scope. It provided the principal contact with the contractors/vendors through the coordination of the project activities with all Omantel related functions.

The projects control department's responsibility was developing and monitoring the projects' cost, and time plan, during all phases of projects, from proposal through development and execution using the project planning software (Primavera). Also, it was responsible for quality control through managing the performance of the various contracts based upon pre-set criteria defined in the company's quality control strategic plan.

The administration and coordination section was responsible for project documentations, communications and maintenance of the key project information. Project documentation includes formal and informal records of project documents throughout the project lifecycle. Also, it was responsible for maintaining the project documentation in a central project binder, as well as soft copies, CDs and in the intranet to disseminate knowledge.

The sponsor organization enhanced the implementation of the Enterprise Project Management (EPMM) by procuring Primavera Enterprise Suite software to enhance the planning and controlling of projects. Primavera Enterprise suite is comprehensive, multi-project planning and control software for managing projects. It provides project managers and schedulers with the tools necessary to plan and control projects with unprecedented results. Packed with advanced project and resource modelling options for every situation, the Project Manager model empowers project managers to create optimum project plans. Project managers can quickly analyze the impact of changing resource limits, activity priorities and constraints on the overall project goals. A sample window of the software is shown in Figures 9-5a and 9-5b, below.

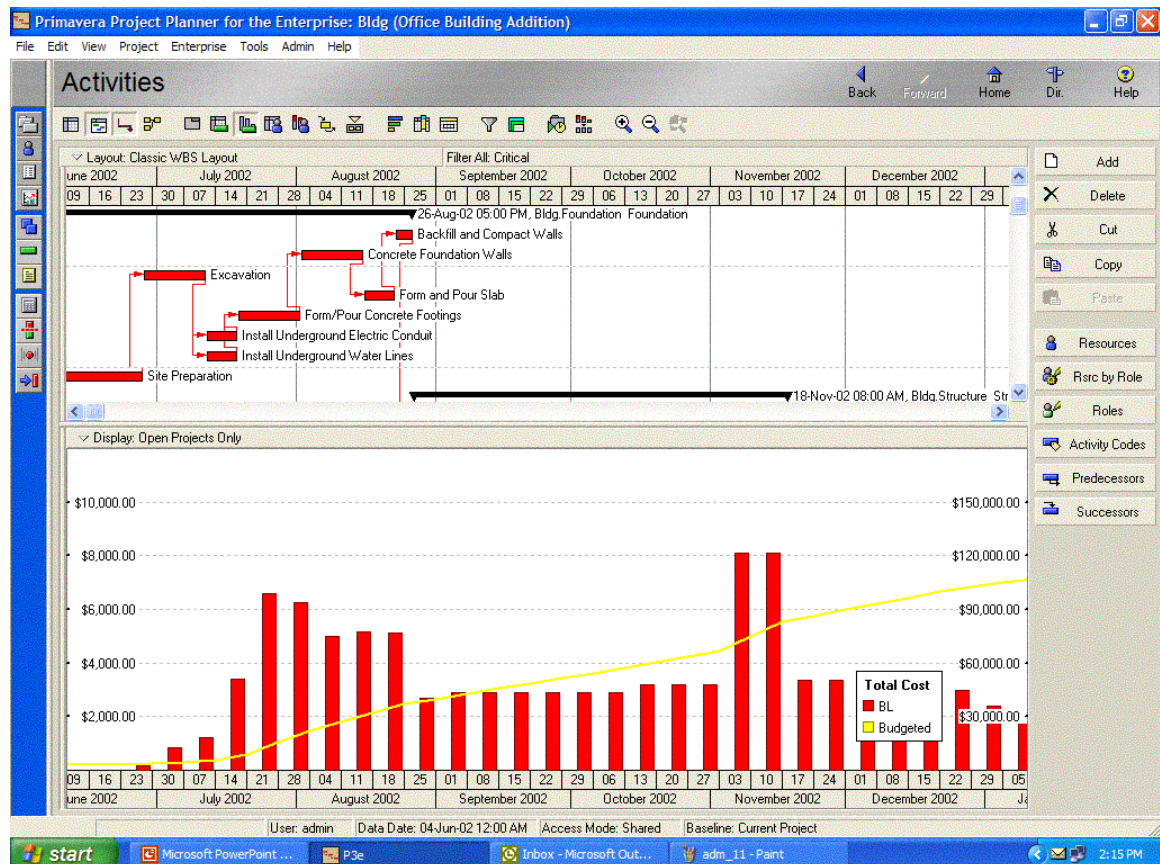


Figure 9-5a: Sample Window from the Primavera Enterprise suite

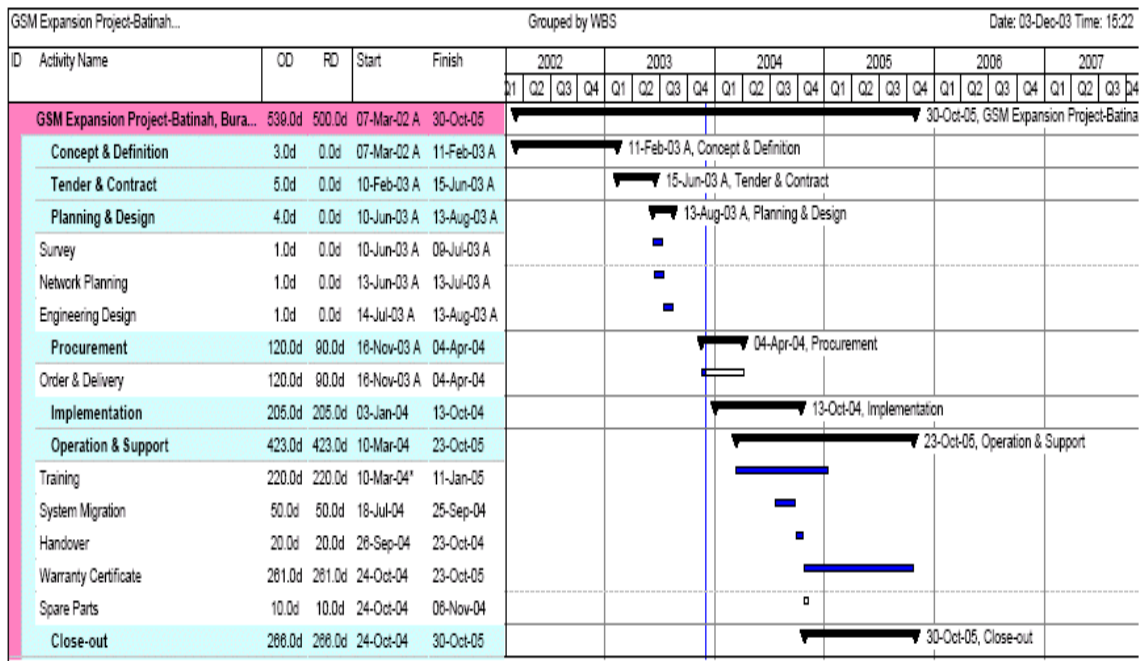


Figure 9-5b: Sample Window for a project in the sponsor organization.

In terms of building competencies in project management, the Project Management Office developed a training requirements and a career path. The career path consisted of four levels starting at team leader, then to project leader, project manager, and senior project manager. The new entrants with a minimum of two years of experience in project execution start at project team leader or project leader depending on their exposure on managing projects and qualifications in project management (example master degree in project management). The project leader enters into project manager level after having successfully passed a master degree in project management or spent minimum of ten years in project execution and demonstrated leadership and teamwork abilities. The project manager is solely responsible for handling the project, but the project leader can only act as a deputy for the project manager. The senior project manager and program manager levels require a Project Management Professional (PMP) qualification. Both the senior project manager and program manager can handle large programs and portfolio of projects. The career path along with letter approving it from the President of the Sponsor organization can be seen in **Appendix 8**, the sample letter requesting the approval with the granted approval is shown in the next page. The training curriculum was developed to introduce the subject of project

management to the employees. Two batches (total of 38 employees) were trained for a qualification of master certificate during two years period; copies of four certificates are in **Appendix 8**. The training organization was Management Concepts and ESI International.

From :	Director, Project Management Office	: من
To :	The Executive President	: إلى
CC.:	Executive Vice President	: نسخة إلى
Ref.:	Omantel/PMO/ADMIN/ 87 /2003	: الإشارة
Date :	Wednesday, 19 February 2003	: التاريخ
Subject :	Proposal for Project Managers' Career Development Path	: الموضوع

After Compliments,

Reference the above subject, please find attached *the Competency Framework for Project Managers* and how it relates to the Project Management Maturity and Capability in the organization. Also attached the *Career and Profession Development Path*.

We would also like to inform you that the PMO is in contact with some training institutes who can deliver the required courses for achieving the above target, which you will be updated with as soon as it is materialized. This is for your kind review and approval.

Best Regards,




Approved.
21/02/03

P.S.

One example certificate for a trainee is shown in the next page.

Management Concepts and Regis University

*Certify that
Fida Abdul Rasheed Al-Balushi*

*Has successfully completed the
Project Management Curriculum and is awarded a*

Masters Certificate in Project Management



William J. Husson

*William J. Husson, Ph. D.
Vice President and Academic Dean
School for Professional Studies
Regis University*



January 27, 2005

Completion Date



Thomas F. Dungan, III

*President
Management Concepts*

9.3 Benefits from using the EPMM

Successful completion of projects

The EPMM has enhanced the sponsor organization's capabilities in executing projects. As evidence, all major Mobile expansion projects were executed using the EPMM in the PMO and all were successfully completed. For instance, contracts 129/2001 and 138/2001, which were discussed in chapter seven as examples of projects that experienced delays. After the award of an extension of time they were completed on the new extended schedule. Three sample completion certificates and

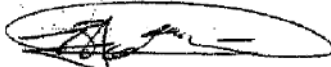
letters are shown below, where the date of completion was after the establishment of the Project Management Office (PMO):

For contract 129/2001: completed on new extended timeline, after long delay.

FINAL ACCEPTANCE CERTIFICATE	
Title of Project	Design, Supply, Installation, Integration, Testing and Commissioning of Equipment for GSM Expansion 2002 in the Sultanate of Oman.
Contract Number	2001 129
Finance Reference No.	PF/988
F.A.C. Number	YA 25 / 2005
System	Mobile Communications
Effective Date of F.A.C.	31.12.2004

Consequent upon successful completion and testing of all the above-mentioned works pertaining to this FAC, under the referred contract, Oman Mobile is pleased to inform you that the said works are hereby finally accepted.

Best Regards,



Bernhard Van Der Meer
Network Division Head



RECEIVED	SIEMENS MUSCAT BRANCH	RECEIVED
	17 MAY 2005	
	No. 43/56	

ONE PLATE

For contract 138/2001: completed on the extended timeline, after long delay.

PROVISIONAL ACCEPTANCE CERTIFICATE					
TITLE OF THE CONTRACT		Supply and installation of equipments for Expansion of GSM Network in Batinah, Buraimi and Musandam Governorate in the Sultanate of Oman			
CONTRACT NUMBER		2001-138			
FINANCE REFERENCE		PF/969			
P.A.C NUMBER		M-158/2005			
SYSTEM		GSM Systems			
EFFECTIVE DATE OF PAC		29 th December, 2003			
		Materials		Installation	
S.No.	Site name	Contract value US\$	As built value US\$	Contract value US\$	As built value US\$
1.	As per details attached	14,005,439.00	13,669,358.89	5,869,939.00	5,585,208.86

Consequent upon successful completion of the works under the referred contract, Oman Mobile is pleased to inform that the above works are provisionally accepted effective from the date mentioned above.

Regards,


Samy Al Ghassany
 Head - Networks Division

Contract 192/2003: completed ahead of time by almost one year.

Sub:-Close out of Siemens GSM Contract No. 2003-192:

We are pleased to inform you that the contract 2003-192 deliverables has been completed as of 16th November, 2004 as against the deadline of 6th October, 2005, as per the following details:

1. New sites 37
2. MW repeater- 3 sites
3. Upgrading-31 sites
4. BSC-3 (Ibra, Ibri and Nizwa)
5. MSC-2 (Ibra and Ibri)
6. Gate way-2 (Qurum and Ghalah)
7. IN Pre-paid-1
8. VOMS Upgrade- 350K- 600 K
9. GPRS/MMS solution upgrade software to SR.10

The snag list and financial documents as regards PAC, Invoicing etc to be completed as per the attached report, which will be supervised and followed up.

We would like to take this opportunity to thank Oman Mobile for giving us the opportunity to serve the project and looking forward to your continuous support to strengthen our mutual relationship.

With best regards,

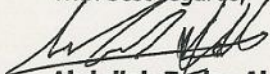

Abdullah Badar Al Busaidi
 Director-Program Office Unit



Table 9-1 shows eleven projects that were handled using the EPMM, and all were completed within the target schedule. Copies of the provisional and final acceptance certificates for all projects shown in Table 9-1 can be found in **Appendix 8**.

Table 9-1: Projects that were implemented by using the EPMM

No.	Contract No.	Description of Project	Contractual completion	Actual completion
1.	2001-129	GSM Expansion Project (Type A)	31-12-2003	31-12-2003
2.	2001-103	GSM Expansion (Type A)	31-12-2003	10-12-2003
3.	2001-138	GSM Expansion (Type A)	31-12-2003	29-12-2003
4.	2003-192	GSM Expansion (Type A)	16-11-2004	06-10-2005
5.	2005-003	Renovation of Oman Mobile H.Q building (Type D)	20-03-2005	08-04-2005
6.	2003-111	GSM Expansion (Type A)	25-05-2005	Stage-1: 12-02-2004 Stage-2: 03-03-2005 Stage-3: 11-05-2005 Stage-4: 11-02-2005
7.	2004-128	GSM Expansion (Type A)	11-02-2005	Stage-1: 19-01-2005 Stage-2: 08-02-2005 Stage-3: 08-02-2005
8.	2005-117	Supply, testing and commissioning of Directory Assistance System BTS (Type B)	19-07-2005	19-07-2005
9.	2004-058	Construction of first floor over Telephone Exchange Building in Suwaiq (Type B)	31-08-2004	31-08-2004
10.	2004-137	Construction of first floor Telephone Exchange in Ibra (Type B)	08-02-2004	08-02-2004
11.	2005-118	Supply and commissioning of hardware for D.Q system (Type B)	03-07-2005	03-07-2005

In the above table, the major GSM expansion projects were classified as type A, because they contributed to the competitive strategy of the sponsor organization by adding more capacity to the network that allowed additional number of customers to use the network. All the projects were completed on time, except contract (2005-013), it was late by eighteen days due to late arrival of furniture for some offices. But this minimal delay was still less than the delays experienced before the implementation of the EPMM that were months or years as was discussed in Chapter Seven: Results.

The Executive President of the sponsoring organization, in his assessment of the effectiveness of using project management processes to implement strategies; he said that *'before the introduction of project management processes in Omantel, project execution could be described as ad-hoc'*. His full answer is captured below.

Fieldwork for the EPM Assessment

Question 3:

In Omantel, explain how projects are executed before the introduction of project management processes in terms of challenges based on your experience?

Before the introduction of project management processes, Omantel project execution could be described as ad-hoc. Project were handled in coordination with the vendor as the vendor takes a leading role. The Omantel assigned person overseeing the project lack basic project management skills and project are not monitored. In effect no proper control, documentation, reporting, and management of projects. Often project run into delays, cost overrun and design changes due to the lack of project risk management at an early stage. As not all the concerned stakeholders are involved in initial project formulation, the ~~time~~^{risk} of deployment of resources surfaces at project implementation phase. Departments, units some are reluctant to deploy the appropriate resources which jeopardises project schedule.

Enhanced Internal Communication

One of the main findings from the internal interviews was lack of communication. The new EPMM, through its Expedition system, enhanced the communication at all levels in the organization. Project meetings were conducted periodically. And project review reports are sent monthly to the management of the organization reporting the main issues and concerns facing the project portfolio of the organization. Three sample progress reports are shown in **Appendix 7**. Each progress report shows clearly the progress of each project, the risk factors and concerns, and the stage of the project with respect to the EPMM steps that were explained in Chapter Eight, namely: (1) Strategic Alignment, (2) Project Initiation, (3) Design Development, (4) Tendering, (5) Execution, (6) Close-out, and (8) Final Acceptance of Work (Defects and liabilities).

Enhancement in the Project Management Maturity

As discussed in Chapter Seven and after analyzing the results obtained from the field investigation methods, the sponsor organization was placed on level one: common language, on Kerzner's maturity model (2001). There are five levels as follows:

- **Level 1 - Common language:** the company starts to recognize the importance and benefits of project management and the need for a good understanding of the basic knowledge on project management,
- **Level 2 - Common Processes:** the company recognizes that common processes need to be defined and developed such that success in one project can be repeated on other projects. Also, in this level, the organization recognizes the application and support of the project management methodologies to achieve strategic objectives,
- **Level 3 - Singular Methodology:** in this level, the organization recognizes the need to combine all corporate methodologies (processes) into one integrated methodology based on project management
- **Level 4 - Benchmarking:** in this level, the company recognizes the need to continuously improve the singular methodology (process) by benchmarking with others in the same industry,
- **Level 5 - Continuous improvement:** in this level, the company performed benchmarking successfully and as a result collected information, evaluated them, and decided to use them to enhance the singular methodology.

After implementing project management processes through the EPMM, the sponsor organization has moved from level one, to level three: Singular Methodology; because it now has a singular integrated process for implementing corporate strategies and this process is based on project management standards, as shown in Figure 9-6, next page. The main characteristics of this level are (Kerzner, 2001: 77): (1) Integrated processes, this is where the organization recognizes that multiple processes can be streamlined into one, integrated process encompassing all other processes (evidence for this was the finding from the internal interviews that described project execution as pooled process within each functional department and the lack of an integrated processes, Theme-2. Also, the need for one integrated process came as a recommendation from the team who reviewed the Sohar MSC project as mentioned Omantel should *'setup a project management organization to facilitate the project coordination process and to allocate priorities'* (P: 20 in the Sohar MSC report in **appendix 2**), and training and education, with strong cultural support for project management (the evidence is the seminars and workshops conducted to promote project management, and the establishment of a career path for project managers with training curriculum as mentioned earlier in this chapter). Moreover, the post implementation interviews asked the respondents to place the sponsor organization in a scale from 0 to 100% for the project management maturity, and the majority of the respondents (seven out of eight) placed it at 30-60%, which lies in the middle level in the scale of Kerzner's Maturity Model (Level 3).

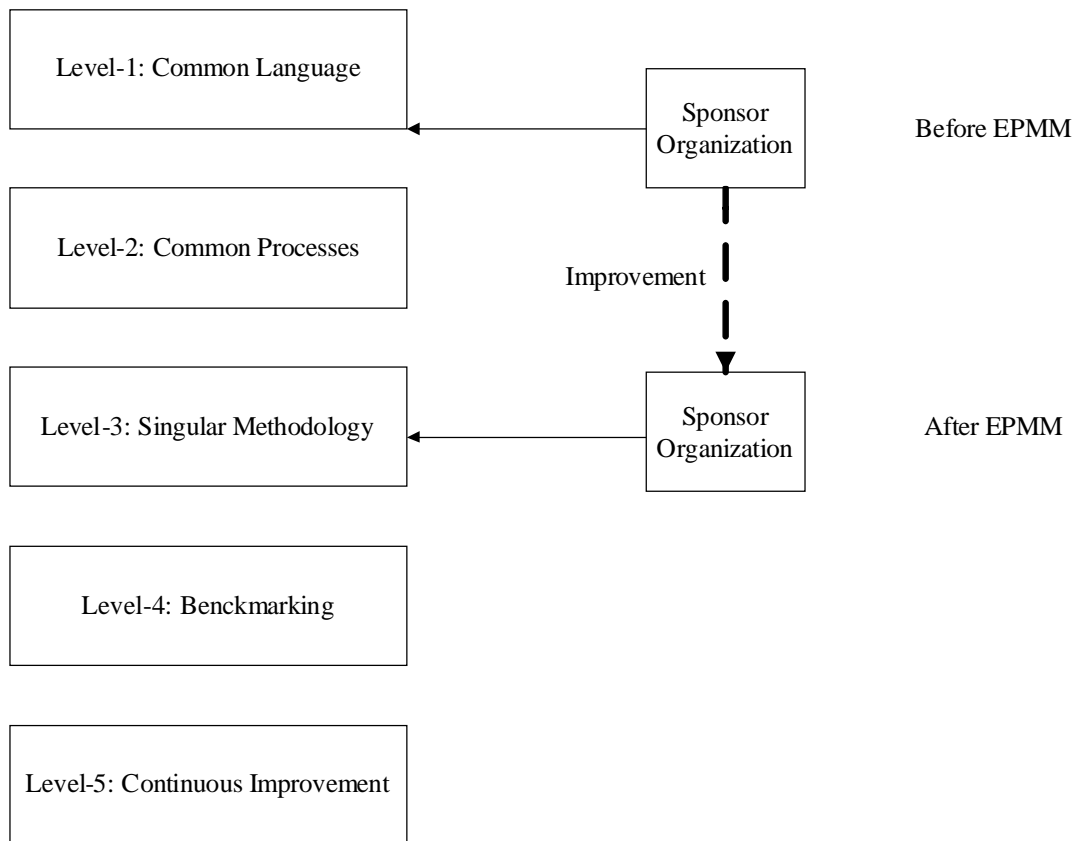


Figure 9-6: The Sponsor Organization's PM Maturity before and after the EPMM

9.4 Post Implementation Interviews

After implementing the EPMM for a period of almost three years (from the establishment of the Project Management Office on November 2002 to September 2005) in the sponsor organization, eight interviews conducted with professionals from within the sponsor organization and outside. The participants in the interviews were selected based on their interaction with the project management process in the sponsor organization and others. Table 9-2 shows the interviewees' details.

Table 9-2: Details of Post Implementation Interviews

Company	Industry	Position
Service Provider (Vendor)	Telecommunications	Program Manager (Int.1)
Service Provider (Vendor)	Telecommunications	Account Manager (Int. 2)
Service Provider (Vendor)	Telecommunications	General Manager (Int. 3)
Sponsor Organization	Telecommunications	Executive President (Int. 4)
Sponsor Organization	Telecommunications	Technical Advisor (Int. 5)
Sponsor Organization	Telecommunications	Sr. Planning expert (Int.6)
Sponsor Organization	Telecommunications	Project Manager (Int. 7)
Sponsor Organization	Telecommunications	Manager Processes & Implementation (Int. 8)

The interviews were semi-structured, there were five main topics raised in the interviews:

1. How corporate strategies are translated into initiatives, programs and projects.
2. Measuring the maturity level of project management on scale from 0-30%, 30-60%, or 60-100%.
3. How projects were executed before the introduction of EPMM?
4. How effective is the EPMM in implementing strategies?
5. Suggestions to improve the PM processes for optimizing its benefits to the organization.

The interviews' results were analysed using a combination of thematic and comparative data analysis methods (Dawson, 2002 and Creswell, 2003). The thematic analysis creates codes for chunks of data and then describes them by creating themes from the data during the process of data analysis. Comparative analysis is concerned with comparing and contrasting the data collected from different people.

The main themes that emerged from the interviews are as follows:

Theme 1: the maturity level of the sponsor organization was rated between (30-60% by four respondents, (against 60-100% for one respondent). The other organizations (vendors) did not rate their company's project management maturity but they

explained their project management methodologies. This theme was supported quotes from the respondents: ‘an overall maturity level of the project management is between 30-60%’ **Int. 8**, ‘yes the maturity level is 30-60%’ **Int. 7**, ‘just above 30%’ **Int. 6**. And for the respondents from other organizations: ‘*all projects..... are based and planned using the PMBOK*’ **Int. 1**, and ‘*the project management at initiatives were introduced as a significant means of improving profitability, with the aim of giving ‘a clear edge over the competition through a standardized scale of qualifications for project managers*’ **Int. 3**. The rating obtained from the sponsor organization’s participants confirmed the improvement in the level maturity from level one before the introduction of the EPMM, to level three after the EPMM, as shown in figure 9-6.

Theme 2: the introduction of the EPMM has improved the implementation of strategies in the sponsor organization, as confirmed by the respondents, **before the implementation of the EPMM:** ‘*basically there was no specific department looking after the projects in Omantel, therefore the projects were handled by the individual department which faced some challenges like delay in implementation, wasted efforts and time, blaming sessions internally and externally*’ **Int. 2**, ‘*there was no clear project management practice and internal coordination was sometimes left to the vendor*’ **Int. 1**, ‘*projects were handled by their own functional owners*’ **Int. 8**, ‘*projects were executed on an ad-hoc basis and common sense, there was no single point of contact*’ **Int. 7**, ‘*lack of ownership, & projects were not the result of the company’s strategic objectives which were planned in isolation of the rest of the departments in the company*’ **Int. 6**, ‘*most projects did not complete on time or not all, unless pushed by executive management or customers, & most projects overrun the allocated budget*’ **Int. 5**. And **after the implementation of the EPMM**, the responses were: ‘*with the introduction of the new process of proper project management handling, the project executed efficiently resulting in saving time and efforts*’ **Int. 2**, ‘*it is clear that Omantel PMO has added value in implementing projects ahead of time, under budget and with good quality*’ **Int. 1**, ‘*by using project management processes, the strategies have a clear vision of taking a particular product on time by analyzing all the possible risks which could emerge*’ **Int. 7**, ‘*the results of implementing new PM processes in Omantel rapidly showed a positive impact*’ **Int. 6** and ‘project management creates an environment in which the

ownership of strategies is clear, the schedule is clear, the deliverables are clear and resources required are identified' **Int. 4**.

Theme 3: communicating the EPMM more within the sponsor organization, raising the competency level of the project managers, conducting more lesson-learnt sessions for both successful and failing projects, and integrating the project management process with other processes, these points were the main suggestions to improve that were emerged from the interviews, this theme was supported by: '*ensure communication of project strategies and goals throughout the whole organization*' **Int. 3**, '*communicate and distribute project management processes for all related parties*' **Int. 8**, '*improve the managerial skills of the project managers*' **Int. 5**, '*this process could be further improved by conducting project postmortem. While it is customary to conduct such review to failed, I believe that the same should be done for successful projects as well*' **Int. 4**, and '*integrating the project management process with other function and planning processes*' **Int. 5**. The responses for all the interviews can be found in **Appendix 8**.

9.5 Lessons Learnt

This section will reflect on the journey of implementing the EPMM and will address the main lessons that were learned. As it has been evidenced from the post implementation interviews, the EPMM has introduced a change in the culture of project management within the sponsor organization. This change journey went through typical change management phases as discussed in chapter five. These phases were (Dallevalle, 1991): **Unfreezing:** during which the members in the organization let-go of their own experience; 2). **Adjustment:** during which the members go through a change of attitude; 3). **Refreezing:** during which the members adapt to the new situation. Because the employees in the sponsor organization did not experience similar change before, so their perceived results from the change process was not clear to them. Hence, they were at zone of change fear in McElory (1996) matrix as in figure (5-2). This feeling of fear from change added more difficulty to the implementation. The main fear from the functional managers, for example, was that with project management methodology the resources will be shared between the functional activities and the project activities in a matrix organizational structure. The way of handling such change process was mainly through different ways, namely:

1. **Communication, communication, and communication:** there were a lot of seminars and workshops conducted educating the people about the roles and responsibilities of project management, and projecting that project management process is to help the organization, there is every other Tuesday a project dynamics seminar, which announced in the intranet, where external speakers are invited to speak about various subjects related to project management (copies of three presentations are in **Appendix 8**; the titles are: Project Leadership, Constructive Feedback, and Projects Communication Management). The communication process is a continuous process. One example of the internal seminars and workshops is shown in **Appendix 8**. In this seminar, the following topics were presented to the technical team from various functional departments and units: role of project management, organization structure for project management, and benefits of project management and enterprise project management. Another example was a presentation conducted after executing mobile projects. The audience for this presentation was the senior and middle managers of the sponsor organization and the vendors who were involved in the implementation of the projects. The third presentation was a presentation conducted on 12th May 2004 as part of the Project Management Institute- Arabian Gulf Chapter (PMI-AGC) activities exclusively for Omantel engineers and staff working with projects. The title of the presentation is ‘Project Management: A Professional Overview’ presented by the researcher. The main topics covered in this presentation were: definitions of project and project management, description of project phases, why use project management and techniques for project control. Copies of all three presentation slides can be found also in **Appendix 8**.
2. **Try to gain Quick wins:** to prove that the new way is successful you need to show results quickly to gain the confidence of the people. This was the strategy set for implementing the EPMM, where the case studies projects that were suffering from delays (as in discussed in chapter seven) were taken over by the PMO, and hence the results were felt quicker.
3. **Get commitments from senior management:** the commitment from senior management was basically through their presence in the seminars and

presentation of project management, this will send a strong signal to the employees about the importance of the events and the issue.

4. **Put a reward system in place:** the first three projects which were handled by the PMO were successful, as a result all the team members were rewarded by monetary rewards in a celebration gathering with the presence of the Executive President and The Vice President.
5. **Benchmarking against other organizations:** because the project management process interacts with internals as well as outside stakeholder, during the implementation of the EPMM, there had been several sessions where vendors are called in to participate to share their experience, and exchange ideas. These sessions proved to be successful to exchange learning between the vendors and the sponsor organization.

9.5.1 Lessons Affected the EPMM

There were lessons that impacted the model itself, specially, the strategic planning phase for deliberate strategies. The way it was implemented in the sponsor organization, as it was reflected in chapter nine, was based on a workshop format, in which the details of the process were not relevant. For example, the evaluation of the external and internal business environment was the first step to be implemented, and it was accomplished using Strength Weaknesses Opportunities and Threats (SWOT) analysis technique, and then corporate strategies were selected. But for generalizing the model for wider use, these specific tools could be left for the choice (either SWOT or Political, Economical, Social, and Technological analysis, PEST) of the organization depending on its special circumstances such as: the business it operates in, its planning cycle. This findings were confirmed with the findings of Price (2003), when he said, after reviewing the strategic management processes in nine construction firms, that *'no one right way to develop and implement strategy exists. The key to successful strategic planning is to get the right fit between the chosen tools and techniques, the organization's culture, capabilities and business environment, and the desired outcome'* (P: 293). Thus, the model has been modified to reflect this change. Also, the development or revisiting of the mission or vision was found to be implied as long as strategic planning is concerned. Therefore, it was removed as a step. After the scenario planning, a financial and cost analysis was conducted to refine the general corporate level strategies, and not develop business strategic objectives. The

business level strategies will be developed after refining the corporate strategies. Figure (9-7), on page 231, shows the changes made on the model; the blue boxes reflect the changes made.

9.6 Summary

The chapter started by introducing the methods and tools utilized to implement the EPMM in the sponsor organization. The main use of those tools was the establishment of the Project Management Office. This change has generated an identifiable vehicle that acted as an owner of the EPMM, and the PMO looked after the EPMM implementation. The PMO established good communication levels among the various stakeholders within the sponsor organization. The EPMM has improved the project management maturity level of the sponsor organization, and it helped in executing projects on time and on budget. These claims were clearly demonstrated by the post implementation interviews. The change that was introduced by the implementation of the EPMM went through three phases: Unfreezing, Adjustments, and refreezing, as was depicted by (Dallevalle, 1991).

Communication is an important element of success for any change as well as: gaining quick wins, commitments from senior management, reward system in place, and benchmarking against other organizations.

The next chapter concludes the research study, which will provide a summary to whole thesis and reflect on the objectives set out in the introduction.

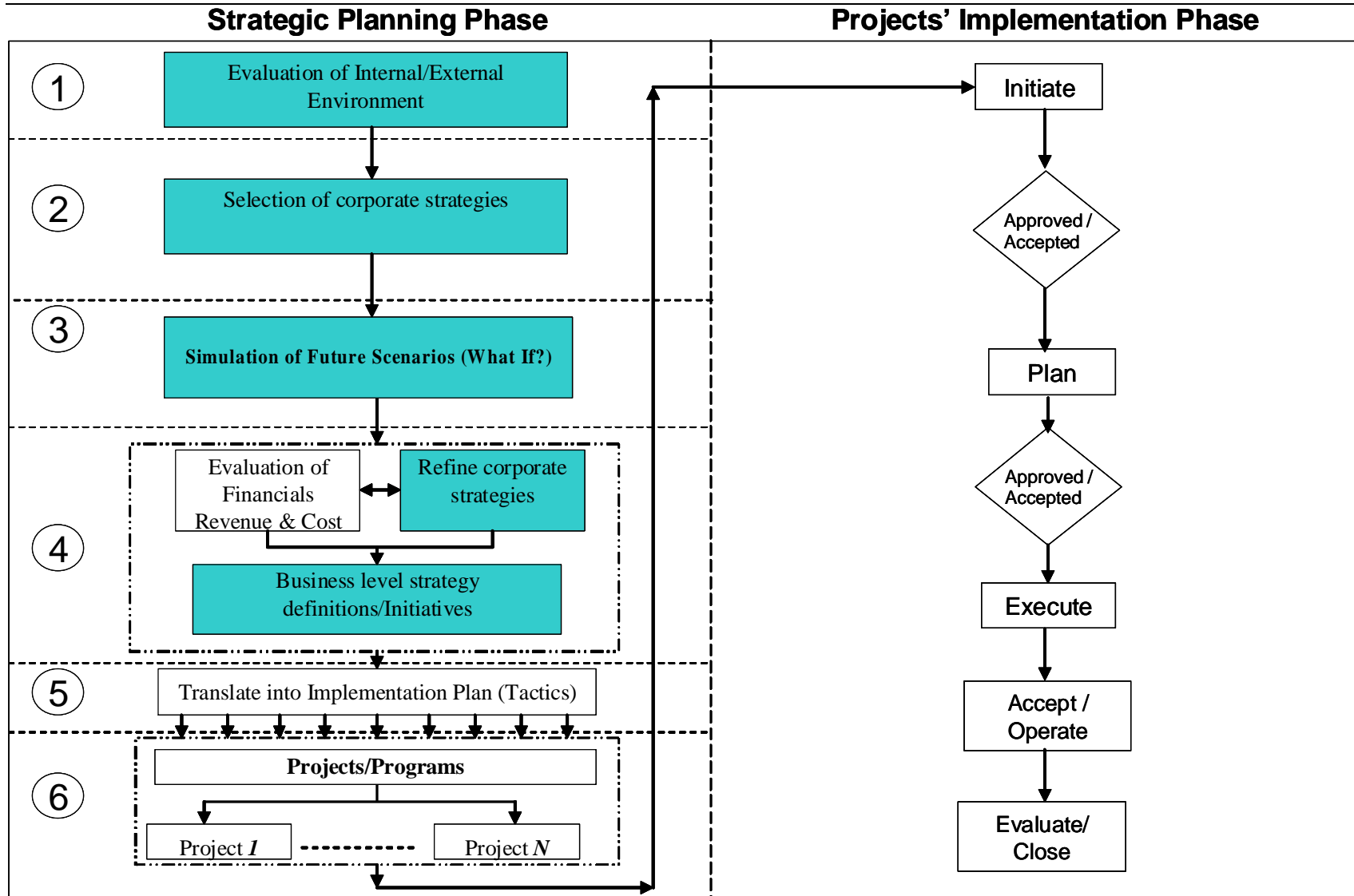


Figure (9-7): the EPMM (Deliberate Strategies), after implementation

Chapter ten: Conclusions, Limitations, Reflections and Recommendations for Future Research

10.1 Introduction

This final chapter summarizes the research findings in connection with the aim and objectives, and the research questions that were established in chapter one sections 1.3 and 1.4. Also, the chapter includes a reflection on the learning achieved as a result of executing the research methodology. The limitations of the study that have been identified along with the recommendations for future research will be presented as well.

10.2 Conclusions

This research firstly mapped out the existing models and processes for developing strategies at the corporate level through an extensive literature review. It also, reviewed the project management processes and their implementation in various industries. The use of project management as a strategic implementation tool was considered. The terms enterprise project management and organizational project management were found to be used interchangeably, and their meaning were found to be the same. For example, the Project Management Institute defined organizational project management as: *‘the application of knowledge, skills, tools, and techniques to organizational and project activities to achieve the aims of an organization through projects, programs and portfolios’* (PMI-OPM3, 2003: 13). On the other hand, enterprise project management was defined as an organization-wide managerial philosophy based on the principle that company goals are achievable through a web of simultaneous projects. This calls for a systemic approach and includes corporate strategy projects, operational improvement, and organizational transformation, as well as traditional development projects (Dinsmore, 1999). The differences between Project Management and Enterprise Project Management can be summarized as follows, Casanova (2003):

Project Management is:

- The direction and management of a project,
- A discipline
- Project Wide
- A tactical issue

Enterprise Project Management is:

- The integration, prioritization, communication, and continuous control of multiple projects,
- An operating environment,
- Enterprise wide
- A strategic issue

The requirements for any organization to successfully implement enterprise project management in terms of changes in their processes, systems and culture was reviewed to arrive at the best way of implementing the EPMM that was developed in this research. Evaluating and specifying learning was one of the five phases of an action research cycle identified by (Susman, 1983). Therefore, it was necessary to understand the concepts and theories behind organizational learning and change management, as this was key, and this was the subject of Chapter Five. The field study consisted of questionnaire survey, which targeted the project managers and engineers in the sponsor organization and other operators and vendors in the telecommunication industry in the Arabian Gulf Region. The main objective of the questionnaire survey was to serve as a scoping survey and to confirm the research need. Then, a detailed document analysis and interviews were conducted in the sponsor organization. The documents that were reviewed consisted of project progress reports, time schedules, and letters of correspondences either internally within the sponsor organization or outside with vendors and suppliers' organizations. Then, further internal interviews were conducted with functional managers in the research organization, the main topics of the internal interviews were to understand: the current project management processes, the problems encountered with the existing processes, and recommendations to improve the current process.

The internal interviews and documents analysed provided an understanding about how projects were currently being executed in the sponsor organization. As a result, the existing process was mapped to define the baseline before the new model was developed.

General Managers and managers responsible for corporate strategies in seven project-based organizations operating in industries other than the telecommunications were interviewed to benchmark the process of how strategies were translated into projects and programs' strategies, and whether project management processes were used as a

strategic implementation tool. The findings of these interviews confirmed the findings from the literature and as a result it was decided that: organizations translate corporate strategies into project and program strategies in different ways depending on the company's structure, culture, and systems and processes; also, it was confirmed that project management was used as a planning and scheduling tool and not as a corporate tool for implementing strategies (Morris, 2005). These findings confirmed the research need and they were used as an input to the process of building the new EPMM. The new EPMM was based on two main concepts, namely:

1. The main stakeholder for strategic directions is the customer, and customer behaviour will determine the strategic initiatives of the sponsor organization, then, the model links strategic planning process with project implementation process. The point of link is projects, and controlled by performance management system.
2. Intended strategies are those planned in the regular planning cycle, which lead to deliberate strategies, but the emergent strategies are those which appear during the execution phase of the intended strategies, and need to be taken into account (Mintzberg, 1979). Also, it was revealed that emergent strategies were the most important ones in the telecommunication industry due to the fast changes in the technology cycle.

Based on these two concepts, the EPMM was designed in two discrete parts in terms of strategic planning. The first part of the model was for the deliberate strategies and the second part was for the emergent strategies. The EPMM was structured on four levels: phases, processes and steps and below the steps are activities; and it consisted of two main phases; strategic planning and projects' implementation phase. In the strategic planning phase, there were seven main processes (for details please refer to Figures (8-3 & 8-4) :

1. Identification of the critical success factors to deliver value for stakeholders,
2. Evaluation of the external and internal business environment,
3. Identification of the gap between the organization's existing and the required competencies and skills,
4. Revisit the existing mission/vision/strategic objectives to create best value for stakeholders,

5. The new strategic objectives will be reviewed against financial cost and revenue analysis, also, they will be tested in a controlled environment utilizing 'scenario planning' technique,
6. The corrected or updated strategic objectives will be translated into initiatives by each functional department, then each initiatives will be further translated into programs or projects,
7. To ensure successful implementation, each program will be divided into projects; this step is the last in the business planning phase and forms the inputs for the project implementation phase.

The projects' implementation phase contained five main processes, as follows:

1. Initiate
2. Plan
3. Execute
4. Accept and operate
5. Evaluate and close.

The proposed EPMM was discussed with three experts in the fields of project management and strategic planning, before implementing it in the sponsor organization. The EPMM was, then, implemented in the sponsor organization. The main driver behind its implementation was the establishment of a new Project Management Office (PMO). The main roles and responsibilities of the PMO were:

- To develop and maintain a common methodology for project management with processes, templates and procedures,
- To enhance communication among various project teams,
- To setup and maintain a system (technology requirements) for managing projects planning and controls and documentation,
- To develop career path and training curriculum to build core project management competencies within Omantel.

The benefits of implementing the EPMM to the sponsor organizations were: a greater number of successful completions of projects, the enhancement of the internal communication, and the enhancement in the project management maturity.

A post implementation interviews were conducted with eight participants from the sponsor organization and telecommunications vendors working in Oman. The main topics of the interviews were:

1. How corporate strategies are translated into initiatives, programs and projects.

2. Measuring the maturity level of project management on scale from 0-30%, 30-60%, or 60-100%.
3. How projects were executed before the introduction of EPMM?
4. How effective is the EPMM in implementing strategies?
5. Suggestions to improve the PM processes for optimizing its benefits to the organization.

The interviews' results revealed that the implementation of EPMM improved the way of implementing strategies through better control over the planning of projects and programs.

Hence, this research study achieved its aim set out in chapter one, section 1.3, page 3, through the development of an Enterprise Project Management Model (EPMM) as shown in Figures (8-3 and 8-4) in Chapter Eight. The EPMM was tested by implementing it in the sponsor organization. After the implementation of the EPMM, a modified model for the deliberate strategies' part (Figure 9-7, page 231) was developed after incorporating changes that resulted from the lessons learned.

In terms of the particular objectives set out for the study in chapter one, section 1.3 and after completing the study, the following conclusions have been drawn:

Objective one:

'To gain theoretical knowledge and understanding of the strategic planning and implementation processes'

As a result of this study, it can be concluded that: there were different models and processes found in the literature for strategic planning and implementation such as Mintzberg (1994) and Steiner (1979). But those models did not focus on the implementation part; instead they were found to focus on how strategies were translated at the corporate level. Also, from the theoretical models of strategic planning, it was clear that within an organizational setting strategic planning can be said to be an iterative process that involves three main elements: objectives and goals of the firm, environmental scanning, implementation, evaluation and control.

The strategic management process consisted of three main parts: strategic analysis, strategic choice, and strategic implementation. The strategic analysis element meant that the strategist would seek to understand the strategic position of the organization by understanding the threats and the opportunities as external factors and the strengths and weaknesses as internal factors. The strategic choice element was actually about

making the choice for the possible courses of actions like choosing a ‘cost advantage’ as competitive strategy. Finally, the strategist will implement the chosen courses of action. This thesis focused on the link between the strategic analysis element and strategic choice through the strategic implementation using project management methodology.

Objective two:

‘To evaluate existing project management process for their applicability to enterprise project management in telecommunication industry’

Project management processes were developed in different industries such as manufacturing and construction. An example was the New Product Development process (NPD) in the manufacturing industry (Cooper, 1990). Also, the Generic Design and Construction Process Protocol (GDCPP) were developed in 1995. But, both processes were focused on the project lifecycle only. It was found that they did not go beyond, like for example to the corporate strategy level. This was the core aim of this research study. Also, the standards of the Project Management Institute Body of Knowledge (PMIBoK, 2000) did not cover issues like strategic objectives, project definitions and value management. And all such issues are related to the definition of the project strategy at the concept phase.

Objective three

‘To review and analyse the existing strategic planning and implementation processes used in practice’.

This objective was fulfilled through the external interviews. The interviews confirmed that strategies were translated into projects and programs in different ways depending on factors such as structures and culture. Also, strategy implementation was accomplished through different means as well, like the Balanced Scorecard, but no evidence was found of using project management to implement strategies.

Objective four

‘To design, validate and implement an appropriate model for EPMM in telecommunications organizations’

This objective was the main aim of the thesis. The EPMM shown in figure 8-3 & 8-4 was implemented in the sponsor organization. Before implementing the model, it was

validated by experts in the field of project management and strategic planning. Based on the implementation, two types of lessons were learned: those lessons that might be beneficial to the user of the model for other organizations to effectively manage the change process of introducing new processes or systems; and lessons that impacted the model itself, which were related to the strategic planning phase to make the model more easier to use in practice.

The answers to the two main research questions, as in section 1.4, in chapter one, were:

- 1. Is there a relationship between strategic planning and development and project management? Yes, there is a relationship*
- 2. Can we use project management methodology to implement organizational strategies? Yes, we can use project management methodology to implement organizational strategies.*

10.3 Implications of Findings

The research designed and implemented an Enterprise Project Management Model (EPMM) that link strategic development and planning with implementation. The EPMM was the first attempt to use project management process in implementing organizational strategies. The findings from the implementation of the EPMM proved that project management as a discipline can be used at corporate level to implement strategies with multiple projects environment and not only as planning and controlling tool for single project environment. These findings will contribute to the general research knowledge on the use of project management through the confirmation that it is a corporate level discipline and not an operational tool.

The implementation of the EPMM in the sponsor organization enhanced: the project execution process, the internal communication, and the project management maturity level.

As discussed in Chapter nine, the EPMM has enhanced the sponsor organization's capabilities in executing projects. As evidence, all major Mobile expansion projects were executed using the EPMM in the PMO and all were successfully completed. For instance, contracts 129/2001 and 138/2001, which were discussed in chapter seven as examples of projects that experienced delays. Also, the new EPMM, through its Expedition System, enhanced the communication at all levels in the organization.

Project meetings were conducted periodically. And project review reports are sent monthly to the management of the organization reporting the main issues and concerns facing the portfolio of projects of the organization. After implementing project management processes through the EPMM, the sponsor organization has moved from level one: Common Language, to level three: Singular Methodology on Kerzner's Maturity Model; because it now has a singular integrated process for implementing corporate strategies and this process is based on project management standards, as shown in Figure 9-6.

Therefore, the use of the EPMM for other telecommunications operators' organizations can provide the same benefits that gained by the sponsor organization.

To measure the performance in the EPMM, the strategic objectives were linked to individual performance objectives as shown in Figure 8-6, page 196.

10.4 Reflections on the Learning from the Research

An action research methodology was adopted for this research. As a result, there were certain issues that faced the researcher. Such issues need to be made explicit for lessons to the future researchers:

1. The research was conducted on part-time mode, and this made the work on the research an ad-hoc process dependent on the time availability, which was made more time consuming as it required a shift between research mode and professional or normal working mode. A detailed time schedule should be prepared for the entire research project at the beginning, and it should be updated on a periodic basis, to secure momentum towards achieving the main goals of the research.
2. The action research methodology required the researcher to interact with different teams within the sponsor organization. For easy access to the data, and ensuring that information flows naturally, the action researcher needs to wear 'two hats' at the same, namely: the professional's hat and the researcher's hat. But always during data collection phase, it was found to be advantageous to wear the professional hat for easier access data, as the respondents were more comfortable.
3. Also, because the research was conducted on a part-time basis and within the researcher's own organization, it was often found that there were confidential data that could be helpful to the research but could not be used because of their

confidentiality and commercially sensitive nature. So action researchers need to be careful when they choose their subject for research.

10.5 Limitations of the Work and Recommendations for Future

Work

The main limitations of the study were:

- The EPMM was tested in one organization as part of the action research methodology. Therefore, the generalization of the model to other organizations not in the telecommunications industries will be a good subject area for future research.
- The performance management system was not implemented due to time limitations of the research. Hence, this could be investigated further in a future research. Such research should focus on developing a performance management system for the entire EPM model. Such a system should be based not only on project performance but also, on strategic performance.
- The data collection methods that were used consisted of both quantitative and qualitative approaches. A questionnaire survey was used as the quantitative approach to confirm the need for research. However, the results from the questionnaire survey provided only little information about the way projects were executed within the sponsor organization; because of the nature of the data required to be collected were detailed and related to the core business of the sponsor organization. Thus, document analysis and interviews were used to get closer to the data sources and explore the issues with more details. For future research, utilizing action research, qualitative data collection methods in general have been found to be more appropriate than quantitative data collection methods.

The main two recommendations for future research are: 1) the study of using the EPMM for other organizations not in telecommunications industry, and 2) the implementation of the performance system as in Figure 8-6 for successful implementation of strategies in organizations.

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An Enterprise Project Management Model for the Transformation
of a Telecommunication Operator Organization
(Volume 2: Appendices)

Rashid Ali Ibrahim Al-Balushi

Submitted for the Degree of Doctor of Philosophy

Heriot-Watt University

School of the Built Environment

March 2006

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Appendices

Appendix 1: The Questionnaire Survey

Appendix 2: Documents Selected for Review

Appendix 3: The t-Test Calculations

Appendix 4: Interviews-1 and Interviews-2

Appendix 5: Comments from the Review Experts

Appendix 6: Omantel Strategic Workshop

Appendix 7: Sample Progress Reports

Appendix 8: Post-implementation interviews, workshops, career path, training certificates, provisional and final acceptance certificates of projects.

Appendix-1

The Questionnaire Survey

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



Date: 7th December, 2002.

TO WHOMEVER THIS MAY CONCERN

SUB: PERMISSION TO PURSUE RESEARCH

This is to Certify that Mr. Rashid Ali Al Balushi, Staff No. 23030, Director of Project Management office, joined Oman Telecommunications Company (Omantel) on 18th November, 2002. He has been granted a permission to conduct an action research within Omantel to:

- (i.) Assess the need for Project Management processes
- (ii.) Develop and implement new Project Management Model that would be used to enhance the implementation of strategies.

Eng. MOHAMMED ALI AL WOHABI
EXECUTIVE PRESIDENT



PROJECT MANAGEMENT SURVEY

This survey is part of a research in the area of Project Management Processes used in Organizations. The findings will be utilized as and when appropriate. You are kindly requested to follow the instructions at each part, answer all the questions and hand it back using the self-addressed envelope provided. All information given will be treated in confidence and not released. Thank you for your time and cooperation.

Part 1: General Information

***Instruction:** To enable us to follow up and clarify your answers if necessary, please fill in your Name, Company, Department working at and contact details.*

1	Name (Optional)	
2	Company	
3	Department	
4	Contact Details (Optional)	

Part 2: About Yourself

***Instruction:** This section contains 4 questions. Please underline the appropriate description about you at each sentence.*

(1) Educational Background

- (1) PhD (2) Masters (3) Bachelors
(4) Diploma (5) Secondary School (6) Below Secondary School

(2) Profession

- (1) Senior/Middle Manager (2) Specialized (3) Semi-Specialized
(4) Office Worker (5) Others

(3) Work Experience in Omantel

- (1) Over 15 years (2) 10 to 15 years (3) 5 to 10 years
(4) 1 to 5 years (5) Less than a year

(4) Number of employees in the department I currently work at

- (1) More than 30 (2) 20 to 30 (3) 10 to 20
(4) Below 10

Part 3: Project Management Processes

***Instruction:** This section contains 4 questions. Please underline the sentence that describes your agreement accordingly.*

(5) In executing projects, does your company follow a standard process?

- (1) Yes (2) No (3) I don't know

(6) If yes, is the process divided into generic phases (example: initiation, planning, execution, controlling & closing-out)?

- (1) Yes (2) No (3) I don't know

(7) If your answer is "yes" in question No. 6, does the process follow a *stage-gate approval process?

[The gate will act as a review point to effectively utilize the resources and prioritize within portfolio projects]

- (1) Yes (2) No (3) I don't know

(8) To the best of your knowledge, please indicate the percentage of projects that follow a consistent project management process.

- (1) 0 – 20% (2) 20 – 40% (3) 40 – 60%
 (4) 60 – 80 % (5) 80 – 100% (6) I don't know

(9) In telecommunications Project Management, out of the three project constraints (time, Cost & Quality), what is the most important one to achieve stakeholders satisfactions?

- (1) Time (2) Cost (3) Quality
 (4) I don't know

Explain briefly the reasons behind your selection for the above question.

“Time” first since there is a certain group of people who would like to explore new services regardless of the “cost” and sometimes the quality. The next item will be the “quality” and then the “cost”.

Part 4: Your Personal Assessment of your Company's Processes

Instruction: This section contains 3 questions. Please rate how accurately each of the sentences describes your status of agreement according to the scale provided below:

Underline "1" if you "Strongly Disagree"

Underline "2" if you "Disagree"

Underline "3" if your answer is "Uncertain"

Underline "4" if you "Agree"

Underline "5" if you "Strongly Agree"

Underline "N/A" if it is not applicable to you

(10) For initiating new projects is there always consistency between overall business strategy and the new project's business case.

1	2	3	4	5	N/A
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(11) The project manager and the team members always review the project deliverables against the overall business strategy?

1	2	3	4	5	N/A
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(12) There is always a clear business case for developing a new project.

1	2	3	4	5	N/A
----------	----------	----------	----------	----------	------------

Part 4: Any Comments/Suggestions

Questionnaire Piloting Form

Name		Interview No.	
Position		Date:	
Organization			

Objective of Interview:

The main objective of this form is to obtain an opinion from the interviewee on the attached questionnaire survey, as a scoping survey to measure the effectiveness of project management processes in executing projects and programs. This is part of a PhD research program that aims at developing an Enterprise Project Management Model (EPMM).

Main Points from Interview :

--

Questionnaire Piloting Form

Name	HASSAN ALZADJALI	Interview No.	2
Position	TECHNICAL ADVISER	Date:	22-NOV-03
Organization	OMARTEL		

Objective of Interview:

The main objective of this form is to obtain an opinion from the interviewee on the attached questionnaire survey, as a scoping survey to measure the effectiveness of project management processes in executing projects and programs. This is part of a PhD research program that aims at developing an Enterprise Project Management Model (EPMM).

Main Points from Interview :

Your questionnaire only covers three questions about Project management process (PART-3), I think you need to expand this part by asking more questions.

In Part-4 try to use more than 3 choices to give the respondents flexibility when answering the questions



HASSAN ALZADJALI
22-NOV-03

PROJECT MANAGEMENT SURVEY

This survey is part of a research in the area of Project Management Processes used in Organizations. The findings will be utilized as and when appropriate. You are kindly requested to follow the instructions at each part, answer all the questions and hand it back using the self-addressed envelope provided. All information given will be treated in confidence and not released. Thank you for your time and cooperation.

Part 1: General Information

Instruction: To enable us to follow up and clarify your answers if necessary, please fill in your Name, Company, Department working at and contact details.

1	Name (Optional)	
2	Company	
3	Department	
4	Contact Details (Optional)	

Part 2: About Yourself

Instruction: This section contains 4 questions. Please underline the appropriate description about you at each sentence.

(1) Educational Background

- (1) PhD (2) Masters (3) Bachelors
(4) Diploma (5) Secondary School (6) Below Secondary School

(2) Profession

- (1) Senior/Middle Manager (2) Specialized (3) Semi-Specialized
(4) Office Worker (5) Others

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(4) 1 to 5 years (5) Less than a year

(4) Number of employees in the department I currently work at

- (1) More than 30 (2) 20 to 30 (3) 10 to 20
(4) Below 10

Part 3: Project Management Processes

- (5) Does your company follow a standard process when executing projects? If yes describe in details this process (i.e. the phases of the process and what standard it follows?)

(6) To the best of your knowledge, please indicate the percentage of projects that follow a consistent project management process.

- (1) 0 – 20% (2) 20 – 40% (3) 40 – 60%
(4) 60 – 80 % (5) 80 – 100% (6) I don't know

(7) In telecommunications Project Management, out of the three project constraints (time, Cost & Quality), what is the most important one to achieve stakeholders satisfactions?

- (1) Time (2) Cost (3) Quality
(4) I don't know

Explain briefly the reasons behind your selection for the above question.

“Time” first since there is a certain group of people who would like to explore new services regardless of the “cost” and sometimes the quality. The next item will be the “quality” and then the “cost”.

Part 4: Your Personal Assessment of your Company's Processes

Instruction: This section contains 3 questions. Please rate how accurately each of the sentences describes your status of agreement according to the scale provided below:

- Underline "1" if you "Disagree"*
Underline "2" if you "Agree"
Underline "3" if your answer is "Uncertain"

(8) For initiating new projects is there always consistency between overall business strategy and the new project's business case.

1	2	3
---	---	---

(9) The project manager and the team members always review the project deliverables against the overall business strategy?

1	2	3
---	---	---

(10) There is always a clear business case for developing a new project.

1	2	3
---	---	---

Part 4: Any Comments/Suggestions

--

Questionnaire Piloting Form

Name	OSAMA BAKIR	Interview No.	1
Position	Expert, Project Management office	Date:	16-Nov-2003
Organization	PMO - Project Management Office		


Objective of Interview:

The main objective of this form is to obtain an opinion from the interviewee on the attached questionnaire survey, as a scoping survey to measure the effectiveness of project management processes in executing projects and programs. This is part of a PhD research program that aims at developing an Enterprise Project Management Model (EPMM).

Main Points from Interview :

Your questionnaire Survey Covers important parts about the project management processes, however, I recommend to change question no. 5 in part 3. Instead of open-ended type to multiple-choice type. This will give the respondents more understanding of the subject matter.

Other than this point, your questionnaire looks very good, and meets the objectives.


OSAMA BAKIR

16-Nov-2003

PROJECT MANAGEMENT SURVEY

This survey is part of a research in the area of Project Management Processes used in Organizations. The findings will be utilized as and when appropriate. You are kindly requested to follow the instructions at each part, answer all the questions and hand it back using the self-addressed envelope provided. All information given will be treated in confidence and not released. Thank you for your time and cooperation.

Part 1: General Information

Instruction: To enable us to follow up and clarify your answers if necessary, please fill in your Name, Company, Department working at and contact details.

1	Name (Optional)	
2	Company	
3	Department	
4	Contact Details (Optional)	

Part 2: About Yourself

Instruction: This section contains 4 questions. Please underline the appropriate description about you at each sentence.

(1) Educational Background

- (1) PhD (2) Masters (3) Bachelors
(4) Diploma (5) Secondary School (6) Below Secondary School

(2) Profession

- (1) Senior/Middle Manager (2) Specialized (3) Semi-Specialized
(4) Office Worker (5) Others

(3) Work Experience in Omantel

- (1) Over 15 years (2) 10 to 15 years (3) 5 to 10 years
(4) 1 to 5 years (5) Less than a year

(4) Number of employees in the department I currently work at

- (1) More than 30 (2) 20 to 30 (3) 10 to 20
(4) Below 10

Part 3: Project Management Processes

- (5) Does your company follow a standard process when executing projects? If yes describe in details this process (i.e. the phases of the process and what standard it follows?)

(6) To the best of your knowledge, please indicate the percentage of projects that follow a consistent project management process.

- (1) 0 – 20% (2) 20 – 40% (3) 40 – 60%
(4) 60 – 80 % (5) 80 – 100% (6) I don't know

(7) In telecommunications Project Management, out of the three project constraints (time, Cost & Quality), what is the most important one to achieve stakeholders satisfactions?

- (1) Time (2) Cost (3) Quality
(4) I don't know

Explain briefly the reasons behind your selection for the above question.

“Time” first since there is a certain group of people who would like to explore new services regardless of the “cost” and sometimes the quality. The next item will be the “quality” and then the “cost”.

Part 4: Your Personal Assessment of your Company's Processes

Instruction: This section contains 3 questions. Please rate how accurately each of the sentences describes your status of agreement according to the scale provided below:

Underline "1" if you "Disagree"

Underline "2" if you "Agree"

Underline "3" if your answer is "Uncertain"

(8) For initiating new projects is there always consistency between overall business strategy and the new project's business case.

1	2	3
---	---	---

(9) The project manager and the team members always review the project deliverables against the overall business strategy?

1	2	3
---	---	---

(10) There is always a clear business case for developing a new project.

1	2	3
---	---	---

Part 4: Any Comments/Suggestions

Appendix-2

Documents selected for
review

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Oman Telecommunications Co. (S.A.O.C.)
Office of the Executive President
Muscat

الشركة العمانية للاتصالات (س.أ.و.ع.)
مكتب الرئيس التنفيذي
مسقط

مذكرة داخلية

Internal Memo

From	: Executive Vice-President	: من
To	: Executive President	: إلى
Your Ref	:	: إشارتكم
Our Ref	: Omantel/P/1/1/3/819/2002	: إشارتنا
Date	: 29 th December 2002	: التاريخ
Subject	: Cause of Delay in Installation & Commissioning of MSC Exchange at Sohar	: الموضوع


After Compliments;

Attached for your kind information the final report on the "Cause of delay in Installation and Commissioning of MSC Exchange at Sohar. I regret the delay in submission of the final report which is mainly due to ascertaining the traffic loss at Ghala and in turn the revenue loss to Omantel.

The report highlights the causes of delay wherever lapses have occurred by the concerned Omantel Department associated with the project. We trust this report will help us to be more effective in managing future projects in order to curtail project delays, as well as in formulating effective project management procedures.

We await your Excellency's advise and comments to the report.


Best regards,



Dr. Amer Awadh Al Rawas

Dr. Amer,

1. Thanks for a very comprehensive report. I agree with your observations & recommendations
2. Kindly pass a copy to P.O. ASAP
3. Also, Arrange a presentation for all concerned Units in coordination with the Project office. This should be done ASAP as to capitalize on lessons learned.


2002/12/29

OMAN TELECOMMUNICATIONS COMPANY (SAOC)

**CAUSE OF DELAY IN INSTALLATION
& COMMISSIONING OF MSC
EXCHANGE AT SOHAR**

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ABSTRACT

The purpose of this report is to identify the causes for prolonged delay in installation and commission of MSC Exchange at Sohar. A team was formed by OmanTel's President with Executive Decision (105/2002) under the leadership of the Vice President to identify the causes of delay, as well as calculation of losses of revenue (if any) due to the delay.

The team is to highlight lapses in planning, co-ordination, and overall project management control by concerned departments associated with this project. The team shall also makes its recommendations to prevent this occurring in the future.

The team is to analyze the processed project management process for this project. This identification process is not to prosecute a specific department or person. The team is to identify the gray areas, and to recommend its findings with alternatives to streamline the project management and its execution processes efficient and effective to meet all predefined milestones.

The project was initiated by MCU to overcome the congestion at MSC1 at Ghala by installation, testing and commissioning of new MSC at Sohar and transfer of existing Batinah and Musandam Network to new MSC at Sohar. The whole project lifecycle was to last nine months. It required construction of new story at Sohar Exchange Building, installation & commissioning of MSC, and transfer of GSM network to new MSC at Sohar.

Proper project management tools were not used in this project. The project ran into delay due to loose control of project management, task and resource allocations. MCU did not followed proper project management tools in term of planning, task and resources allocations. MCU relied on vender's project management process which only dealt with his task only. We believe MCU Planning should have produced holistic plan for project management with allocations of all relevant tasks, responsibilities and resources with there predetermined objective milestones. There was no proper coordination between MCU and FCU for provision of connectivity to GSM Network and to PSTN side.

The team's recommendation for this project and for future projects is to have a holistic approach to project management to oversee the whole project. This would have included allocation of tasks, responsibilities and resources to all concerned with the project and there respective predefined objective milestones to monitor the project. Upon completion, to audit the project to learn and streamline the whole process of project management for future project of similar nature.

CAUSE OF DELAY IN INSTALLATION AND COMMISSIONING OF MSC EXCHANGE AT SOHAR

INTRODUCTION

The purpose of this report is to identify the causes for prolonged delay in installation and commissioning of MSC Exchange at Sohar. A team was formed by OmanTel's President with Presidential Decree (105/2002) to identify the causes of delay and as well as calculation of losses of revenue (if any) due to the delay.

The team was formed under the leadership of OmanTel's Vice President and consists of :

1. Manager Transmission System
2. Manager Activity Based Costing

The team is to highlight lapses in planning, co-ordination, and overall project management control by concerned personnel/departments associated with this project. The team shall also recommend its suggestions to the lapses in timely installation and commissioning of MSC at Sohar, to prevent this occurring in the future.

METHODOLOGY

The Vice President on first meeting of the team members made it cleared that this identification process is to analyze the methodology of project management in OmanTel. This identification process is not to prosecute a specific department or person. Team is to analyze the whole process of the project from its appraisal stage to tendering stage, and to its completion stage. The team is to identify the gray areas, and to recommend its findings with alternatives to make whole process of project efficient and effective to meet it's deadline.

Following course of the inquiry was decided and agreed upon.

- Layout of the report to be submitted by the team to The President OmanTel.
- Team to build (Proposed and Actual) Gnat charts of the project with all associated works involved for the completion of the project.
- Upon completion of the Gnat chart, team to analysis the process of whole project and identify the areas where the project was delayed and to inquire the causes.
- Team to meet with the concerned department's Head to gather the relevant information to inquire the causes.
- Team to submit its finding for the delays and recommend the alternatives in the from of the report to The President – OmanTel.
- Finally Vice President is to give Presentation on the identification process to all concerned departments of OmanTel to highlight causes of delays and recommendations.

PROJECT BACKGROUND (BRIEF HISTORY)

At present OmanTel's Batinah and Musandam GSM Network comprising of BSCs at Mussana'ah, Suwaiq, Saham, Sohar1, Khasab, Buarimi, Sohar2, Rustaq, and Khabura are connected to MSC1 at Ghala. The network is of Motorola make. Due to increase in usage of GSM, MSC1 at Ghala is congested and processor utilization is well over the recommended level. Thus causing failure of availability of GSM network in Batinah and Musandam Regions.

To overcome the present situation, GSM expansion plan was devised by OmanTel's Mobile Communications Unit (MCU). Under this expansion plan, it was decided to install a new Ericsson MSC at Sohar and connect existing Motorola GSM network in Batinah and Musandam Region from MSC1 at Ghala to new MSC at Sohar. New Saham2 BSC were also to be installed and commissioned under this GSM Network expansion in Batinah Region.

Initially, installation and commissioning of the MSC at Sohar and connection of Motorola GSM Network of Batinah and Musandam Region to MSC at Sohar was a turnkey project, where Ericsson was to install and commission the MSC at Sohar and Motorola was to connect the existing GSM network from MSC1 at Ghala to MSC at Sohar. Connection of existing Motorola network to MSC in Sohar involved dismantling of Transcoders (TRAUs) at MSC1 at Ghala and to reconnection of TRAUs at MSC at Sohar.

Due to the high cost of the project, it was decided that Ericsson will install the MSC and commission the MSC at Sohar will be done by OmanTel. OmanTel will also connect the existing Motorola GSM network to new MSC at Sohar. Where as Ericsson and Motorola will provide technical expertise during these stages.

Under the new arrangement, ordering of all necessary equipment, testing, and commissioning of new MSC at Sohar, dismantling and reconnection of TRAUs from MSC1 at Ghala to MSC at Sohar became OmanTel MCU's responsibility. Where as Ericsson and Motorola to provide all technical expertise during this phase.

PROJECT LIFECYCLE

As per the appraisal report from MCU the project have the lifecycle of nine months inclusive of construction of the exchange building. Installation of MSC will commence after the construction the building block and will take three months to commissioning. Upon completion of the commissioning of the MSC, transfer of existing GSM Network from MSC1 at Ghaia to MSC at Sohar will start and will take three months to finish.

Table 1: Proposed Schedule of the project as per Appraisal Report

Work Description	Period
MSC and allied transmission links	6 months from issue of a "Letter of Acceptance" or handing over of the building – whichever is later
Extension of Sohar Exchange Building	3 months from issue of a "Letter of Acceptance"
Total Period of the contract	9 months from issue of a "Letters of Acceptance"

DEPARTMENTAL ROLES & RESOURCE ALLOCATIONS

Completion of this project required planning and coordination among following OmanTel and Departments:

1. GM Mobile Communications Unit
2. GM Fixed Communications Unit
3. GM Support Services Unit
4. Tender and Contract Department-OmanTel

Table 2. Following Task Allocation Table shows complete responsibilities

Unit/Departments	Task/Responsibilities
GM Mobile Communications Unit	Complete Ownership of the Project
Manager Mobile Planning & Project- MCU	<ul style="list-style-type: none"> • Planning and Project Management for MSC at S and Network Transfer • Coordination with FCU for timely availabilities connectivity to GSM network and PSTN
Project Leader – MCU	<ul style="list-style-type: none"> • Installation, Testing, and Commissioning of MS Sohar • Connection of GSM Batinah and Musandam Ne to MSC at Sohar
Manager Fixed Planning – Fixed Unit	<ul style="list-style-type: none"> • Coordination with MCU, Transmission and Sw Departments for timely availabilities of connect GSM network and PSTN
Manager Transmission – Fixed Unit	<ul style="list-style-type: none"> • Coordinate with Manager Fixed Planning to pro all required connectivity need by MCU for con of MSC at Sohar to GSM network
Manager Switching – Fixed Unit	<ul style="list-style-type: none"> • Coordinate with Manager Fixed Planning to pro all required connectivity need by MCU for con of MSC at Sohar to PSTN network
Manager Civil Engg. & Power – SS Unit	<ul style="list-style-type: none"> • Planning, Design, and Construction of Sohar Exchange Buildings First Floor
Manager Support Services – SS Unit	<ul style="list-style-type: none"> • provisioning of logistic and insurance of equipr
Tender and Contract Department-OmanTel	<ul style="list-style-type: none"> • Tendering of all associated material and issuan LOA, Contract signing for all on time

PROJECT SCHEDULES (GANTT CHARTS)

These Gantt charts are reproduced with the actual events tracking and represents the whole projects preceding. The main objective of the project is to install, test, commissioning of MSC and transfer of GSM Batinah and Musandam Networks to New MSC at Sohar. This can only be achievable upon timely availability of connectivity required to connect MSC to GSM network and PSTN Network by Fixed Communications Unit. Therefore, the project is broke into five parts, namely:

1. Construction of First Floor of Sohar Exchange Building
2. Ordering of MSC and its installation, testing and Commissioning.
3. Ordering of New Northern STM-16 Ring Project and its commissioning to provide connectivity to GSM and PSTN Network.
4. Ordering of Sohar Trunk Expansion items for connecting of Sohar MSC to PSTN Network.
5. Connection of GSM Batinah and Musandam Networks to MSC at Sohar.

Above all sub-projects of the main projects are vital and requires to meet there respective objectives on time to compliment each other to meet main projects deadline.

Figure 1 to 5 illustrate the above mentioned sub-projects Gantt Charts.

Figure 6. Illustrate the projected project schedule if all the tasks needed to meet the main objective of the project were to have started on time.

Figure 7. Illustrate the combined projected and actual Schedule of the project.

Figure 1. Construction Schedule of First Floor of Sohar Exchange Building

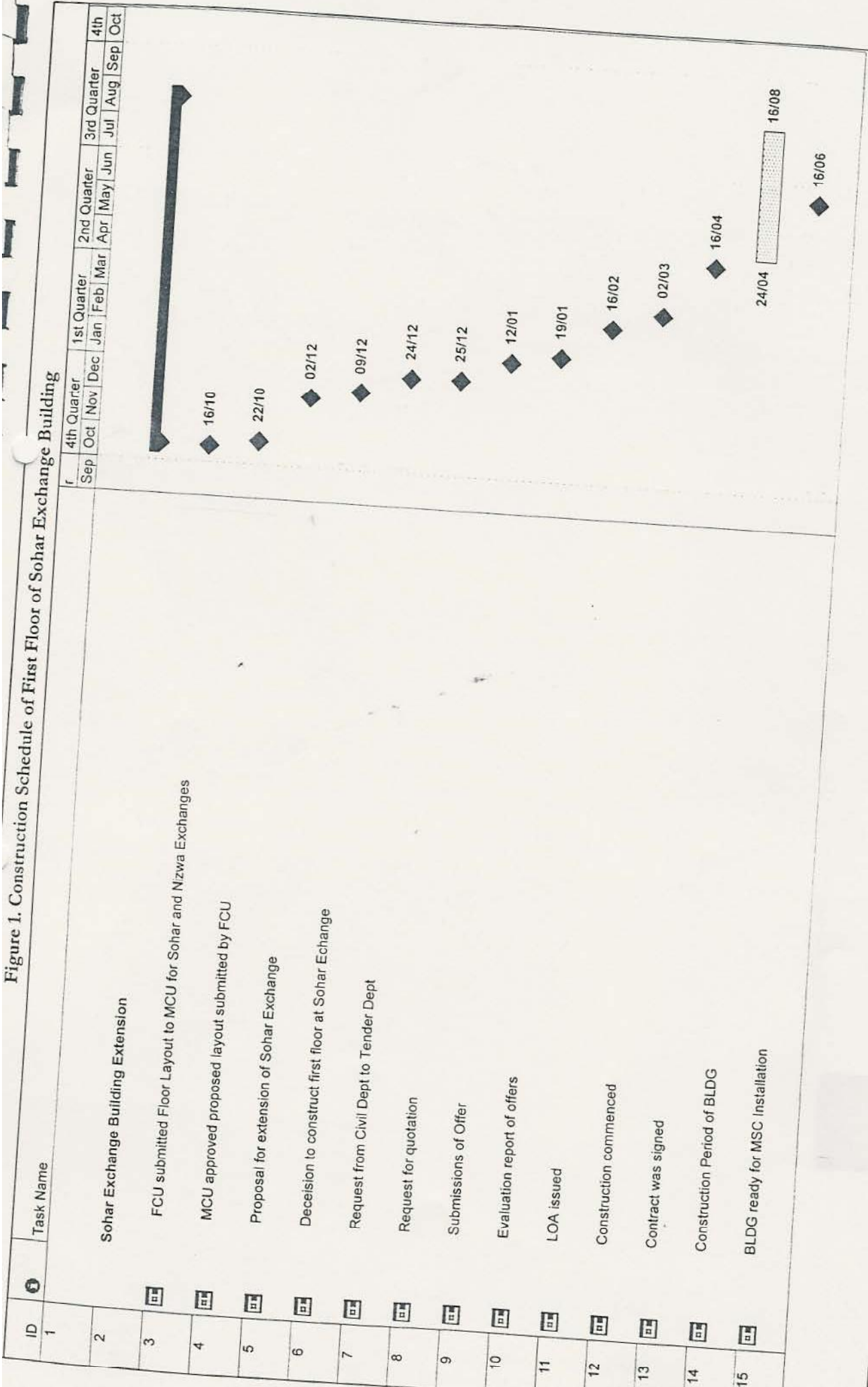


Figure 2. Schedule of MSC and its installation, testing and commissioning.

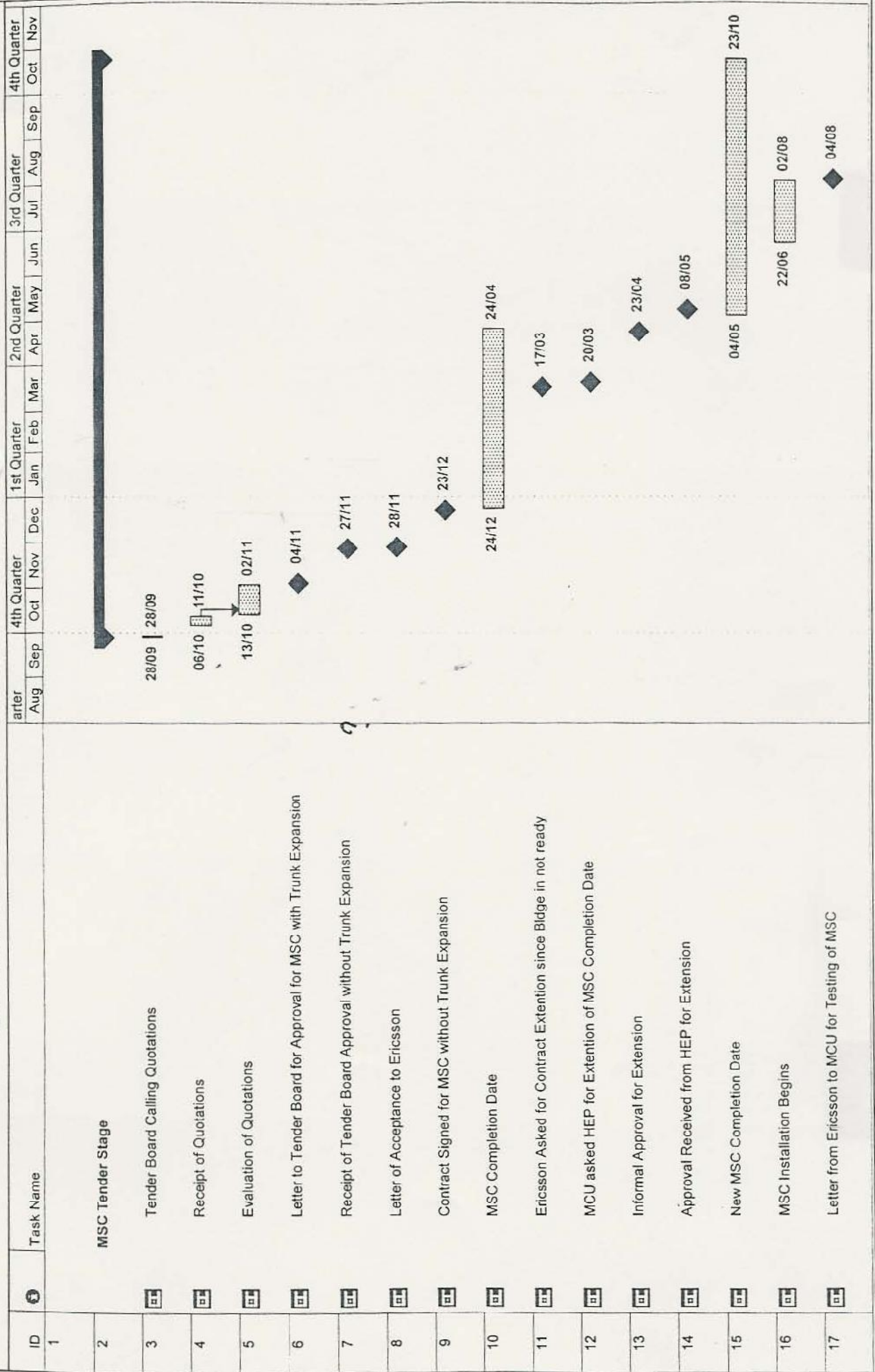


Figure 3. Schedule of ordering of New Northern STM-16 Ring Project and its commissioning to wide connectivity to GSM and PSTN Network.

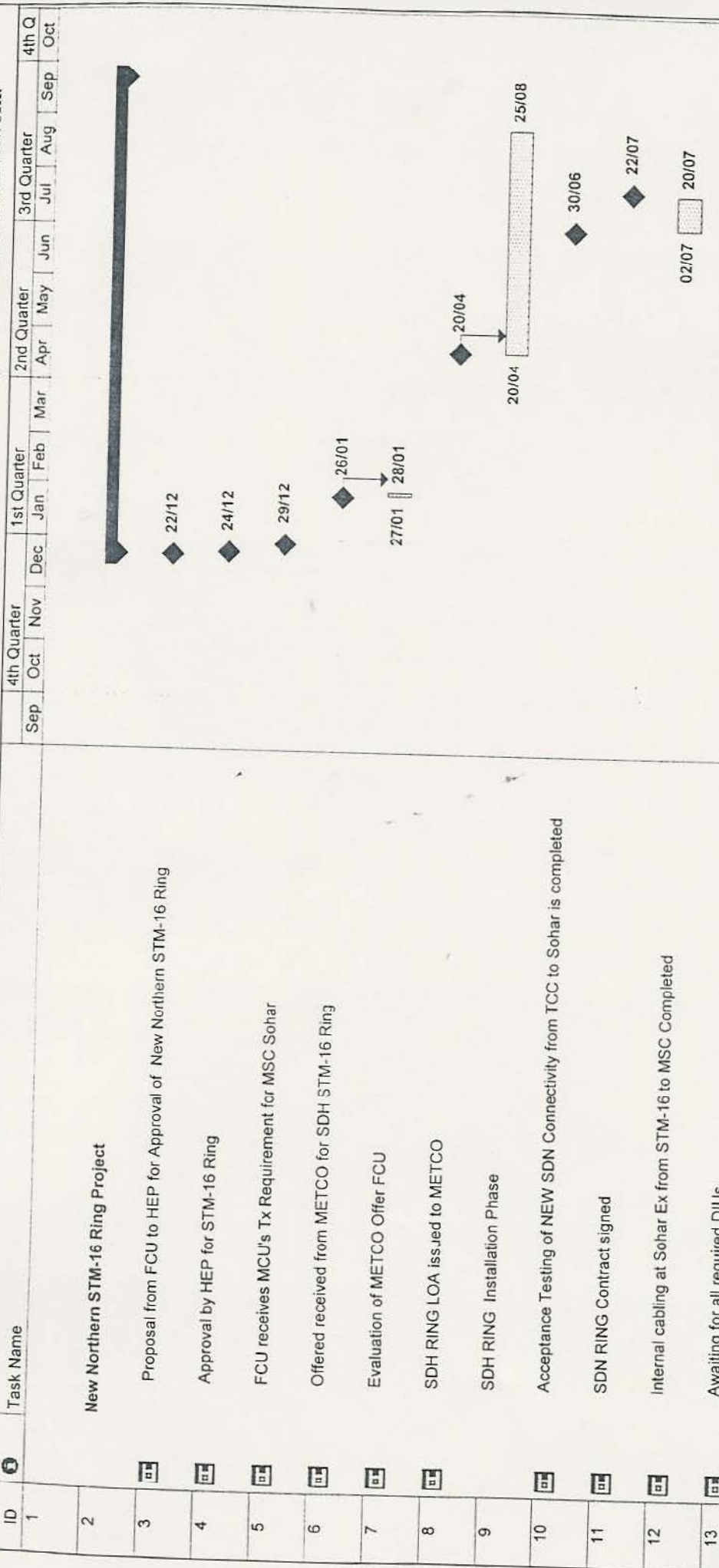


Figure 4. Schedule of ordering of Sohar Trunk Expansion items for connecting Sohar MSC to PSTN Network.

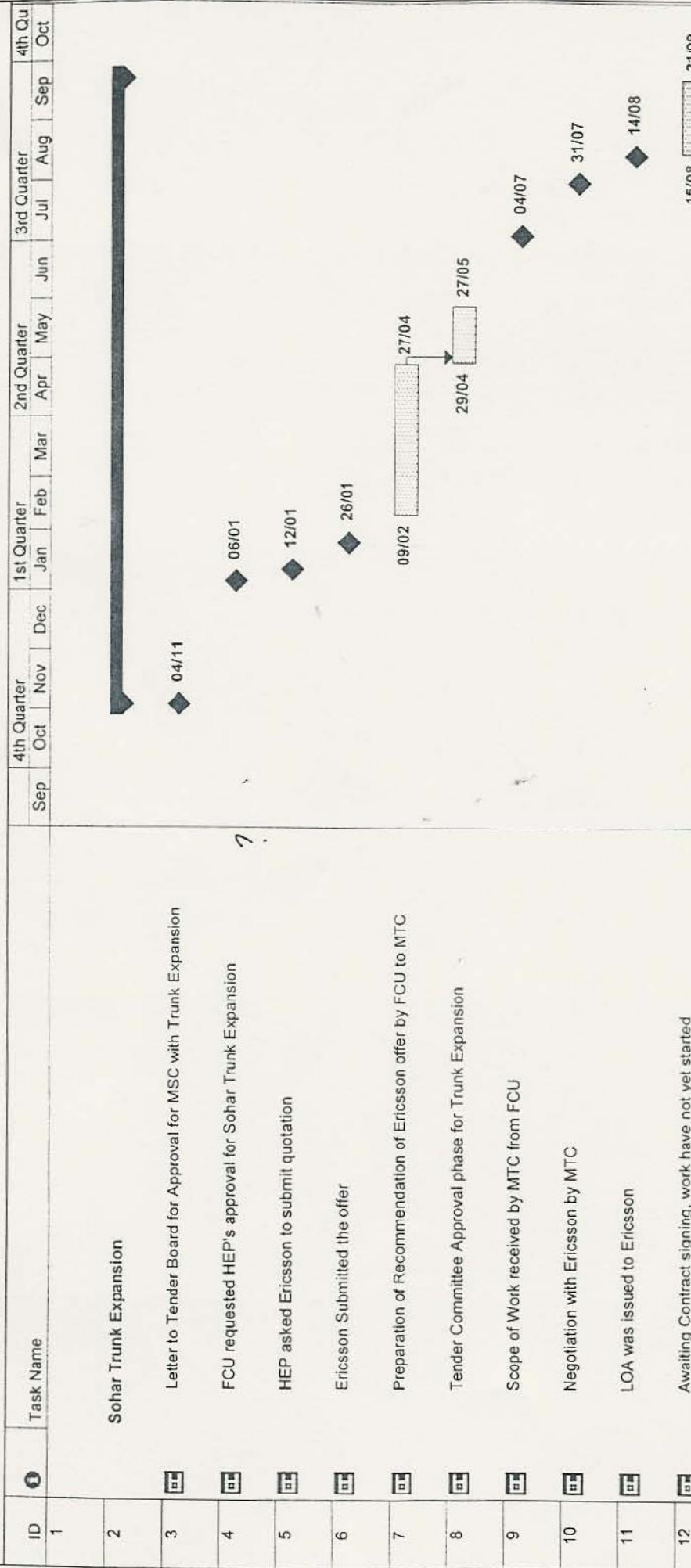
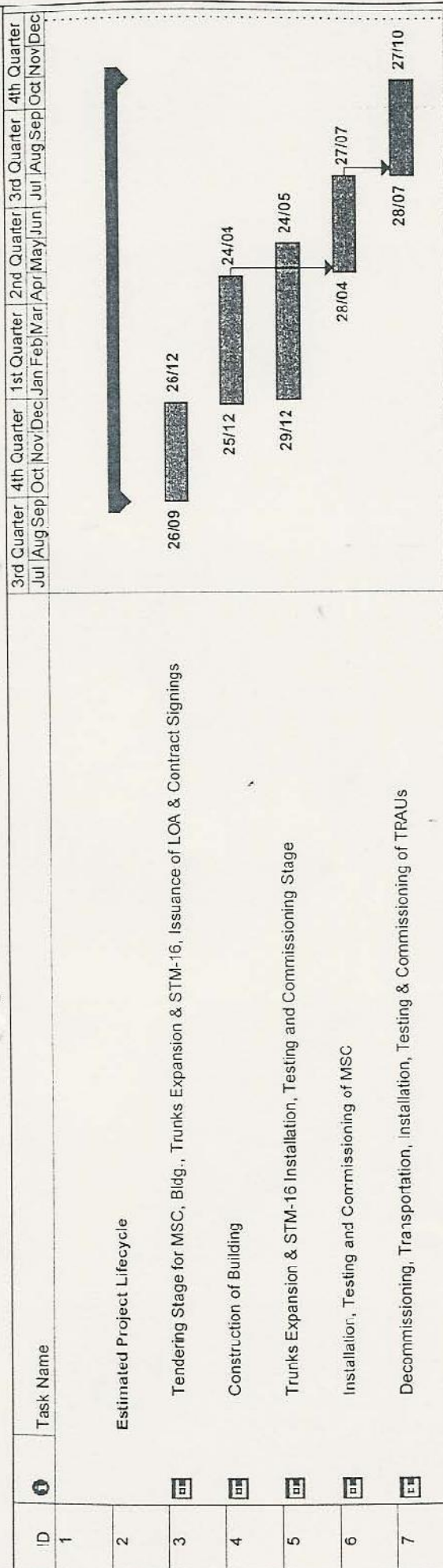


Figure 6. Illustrate the Projected Project Sched



FINDINGS OF THE TEAM

Upon thorough identification process of this project, team finds following two main points of delay in timely installation, testing and commissioning of the MSC at Sohar.

I. Lack of proper planning:

All OmanTel Units associated with the project failed to coordinate their associated activities to meet the deadline. The MCU being owner of this project however failed to order all associated GSM equipment on time. FCU failed to provide the connectivity of MSC at Sohar to GSM Network on time. Support Services Unit took a long time to get final decision to either construct an extension to the existing Sohar Exchange or to add a floor to it.

Which relates to following findings:

1. MCU did order MSC, but failed to order other associated equipment (TRAU) on time needed to finish the project on time. Even if the MSC was installed on time, it would not have been put in operation without other associated equipment utilization and connectivity with GSM Network.
2. Appraisal Report did contained reference to connectivity required from Fixed Communications Units in term of 2MBs and Switching trunk expansion to PSTN side. Fixed Communications Units was nor prepared to allocate the requirements asked by MCU and had its own plan for extension of SDH Ring and Trunk Expansion Plan, which was not coordinated with the expansion of GSM Network timetable.
3. Trunk Expansion for Sohar PSTN was initially a part of the MSC tender stage, but was not exercised by OmanTel. Reason being that FCU had their own independent Trunk Expansion Plan.
4. Because of the above points, its appears that the project was more of a reaction to overcome congestion at the GSM Network. It lacked proper planning in term of getting inputs from all concerned departments to complete the project on time.
5. MCU being the owner of the project relied on Vendor's (Ericsson) project management team for the project completion process instead of having its own comprehensive project process schedule with roles and task allocations by MCU and its corresponding Units. Project lacked proper project scheduling of the required tasks, its schedule charts and task allocation process, thus lacked overall control of the owner on the project.
6. MCU Planning lacks in discipline of Traffic Engineering, Traffic Monitoring, and Planning at switch side. They relay on vender's suggestions and solutions. For this project, they did not had any data with them with regards to switch congestion resulting number of calls dropping either side of switch. MCU have a system (Spots) setup to monitor these kind of data from Seimen, but have no staff available to retrieve and analyze the data. Team had to get the required data from the vender's expert.

II. Non-Availability of Sohar Exchange Building:

Another element of the delay to the project was the non-availability of the Exchange building. All though it was part of the Appraisal Report raised the MSC at Sohar as extension to existing building. But it took three months to either build a ground floor extension to the existing block or to build a new building. Which could only be concluded that no proper survey was done to come to a firm decision to extend the building or to construct the full process of decision to extend or build a new story should have been completed before raising the Appraisal Report.

Because of above two main reasons, team find following points of concerns in delay of project deadlines.

Lack of Long Term Planning:

1. Departments lack long term planning, there is no long term network expansion in term of Fixed, GSM, Internet and other services. Long term planning substitutes reactive projects lacking required components.
2. FCU Planning Department do not have any future requirements for MCU or Internet that can be incorporated with their long term plan. Which would help them to plan and have capacity available for future requirements required by respective Departments. The case is same for other departments and as well as to Switching side.

Lack of co-ordination:

There is no proper coordination among different departments in the execution of projects and project management. All act independent of each other, which results in lack of awareness of projects by other concerned departments leading to project gaps and missing vital linkage components.

Shortage of Staff:

Planning Departments of all Units are under staffed as present ratio of staff to project is around 8 projects per engineer.

If all the above points of concern were to be followed by MCU, based on best case scenario the project's projected Lifecycle would have been as follows: (Refer to Gantt Chart for details)

Table 3. Best case scenario based projected lifecycle of the project:

Stage Description	Stage Period	Starting Date (from Appraisal Report)
Tendering Stage for MSC, Bldg, Trunks, and STM-16	3 months	26-September-2001
Construction of Bldg.	4 months	26-December-2001
Trunks & STM-16	4 months	26-December-2001
Installation & Commissioning of MSC	3 month from the completion of bldg.	26-April-2002
Installation & Commission of TRAU's	3 month from the commissioning of MSC	26-July-2002

REVENUE AND OTHER LOSSES

The team had a very hard time to retrieve the call loss data from the MCU Planning Department. The department had no such data available with them and had to rely on vender to provide the data from the system setup at MCU premises. MCU have the system setup, but no staff to us the system.

Data provided by MCU with following elimination of congestion due:

1. IN Network (16.2%)
2. Trunks Congestion (6.9%)
3. CP overload due to Trunk Congestion (5.1%)

Call losses due to congestion at Ghala MSC is:

- Call Losses Originating from GSM: 104,279.3 calls per week
- Call Losses Terminating at GSM: 26,341.3 calls per week
- Call Losses Originating from Hayyak : 51,631.6 calls per week
- Call Losses Terminating at Hayyak : 9,970.524 calls per week

Revenue Lost due to these congestion is as follows:

	Revenue Lost per Week (Rial Omani)	Percentage From Total
GSM-Incoming Traffic		
PSTN-GSM	1,230.342	4.22%
Pay Phone-GSM	339.074	1.16%
NMT-GSM	15.775	0.05%
VSAT-GSM	1.330	0.00%
GSM International Incoming	768.928	2.64%
GSM Outgoing Traffic		
GSM-Paging	90.436	0.31%
GSM-VSAT	1.717	0.01%
GSM-GSM	2,197.688	7.54%
GSM-PSTN	4,060.530	13.93%
GSM-NMT	19.712	0.07%
GSM-Voice Mail	1,049.230	3.60%
GSM International Outgoing	3,431.873	11.78%
Hayyak Incoming Traffic		
PSTN - Hayyak	131.631	0.45%
GSM - Hayyak	476.238	1.63%
International - Hayyak	233.932	0.80%
Hayyak Outgoing Traffic		
Hayyak - PSTN	1,828.502	6.28%
Hayyak - GSM	6,979.764	23.95%
Hayyak International Outgoing	6,282.531	21.56%
Total Revenue lost Per Week (Omani Rial)	29,139.234	

Financial losses due to the delay in term of man hours by GSM Department is as follows:

Description	Amount/Month	Numbers	Total (Amount/Month)
Project Leader	543.000	1	543.000
GSM Staff	182.000	5	910.000
Total (Rial Per Month Per Project)			1,453.000

Financial Losses due to man hours includes following expenses:

- Basic Salaries
- BONUS
- Utility Allowance
- House Allowance
- Transport Allowance
- Telephone Allowance
- Overtime
- Pension Contribution-Government
- Gratuity
- Staff Travel
- Cont Serv - Data Processing
- AS - S&R - Regn & M.ship Fees
- TE&P-T&E- Travel on Duty
- TE&P-T&S- Substance Expense
- TE&P-D&E-Donations
- System Projects Group

Revenue losses per month = 116,556.936 Rial Omani

Man Hour Losses per month = 1,453.000 Rial Omani

Expected Date of completion from signing of the contract (23/12/2001) = 22/9/2002

Project completed in November 2002.

Thus Total Lose (Revenue+Man Hours) = 236,019.872 Rial Omani

Other then the above, loss of customer faith and loss of Company's reputation is priceless and one cannot calculate the losses.

CONCLUSIONS & RECOMMENDATION

1. It should be mandatory for all OmanTel departments to provide their realistic respective 5 year plans in advance and have coordination with Strategic Planning to make sure that capacity is available when ever required by them. This exercise to be followed on either six month or annually. Like financial budget, OmanTel should initiate a Network Budget where Strategic Planning should gather all network requirements needed for next 5 years and incorporate them to one final OmanTel's corporate network expansion plan. This will promote coordination among the departments and will make project management of jointly own project effective and efficient. OmanTel should invest in Telecommunications Network Management Tool provided by ITU to monitor the Telecommunication Network efficiency.
2. All appraisal reports of any department should not include individual department's requirements only, it should also include all other departments requirements which will be needed in timely manner to finish the project on time. In this particular case the appraisal report should have included the FCU side of requirement for connectivity to MSC at Sohar and Support Services Units final plans to construct the floor over the Sohar Exchange building. The appraisal Report should have been signed by all concerned Units involved in the project and should also include a Project Schedule in the form of Gantt Chart, where all activities by all departments are listed with start and finish dates with proper measurable milestones.
3. The Unit, who is initiating the project should have the total ownership of the project, but shall include project co-coordinators from all other concerned Units/Departments to coordinate all required activities/tasks to finish the project on time. Planning Departments of Units should be assigned as coordinators to facilitate the project successful completion meeting all defined deliverable at predetermine milestones.
4. Final Scope of Work should include all respective departments roles, tasks and resources allocation requirements. Development of Project Portfolio, leading to proper project resources allocation and overall project management.
5. OmanTel needs to invest in Project Management Processes and Training Programs to train its staff on proper project management techniques.
6. MCU Planning Department needs to be reorganized with proper sections and to hire technical experts in GSM Planning, GSM Traffic Monitoring, and GSM Switch.
7. To follow up to the completion of this project a team of two members to be setup to oversee the project processes and to audit the project upon completion to review whole process for future considerations.
8. OmanTel needs to setup a Project Management Organization to facilitate the project coordination process and to allocate priorities as per OmanTel's long term strategy and vision.
9. OmanTel should also audit its project upon completion to acquire and learn from shortcoming/falls to upgrade the whole process as and when required for better project management process for future needs.

Done.

J. good.

Annexure 2
Request Letters for Contract Extensions

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



الرقم : ش ع / رت م / ع ٢٠٠٣ /
التاريخ : ١٤٢٣ / / هـ
الموافق : ٢٠٠٣ / / م

المحترم ... سعادة المهندس / سلطان بن حمدون بن سيف الحارثي
الأمين العام لمجلس المناقصات

السلام عليكم ورحمة الله وبركاته وبعد،،،

الموضوع / طلب تمديد العقد (٢٠٠١/١٣٨)
لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف
المتنقل العالمي في منطقة الباطنة والبريمي ومحافظة مسندم

نود إفادة سعادتكم بأن شركة مونتورولا تقوم بتنفيذ مشروع توريد وتركيب
وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في منطقة الباطنة والبريمي ومحافظة
مسندم تحت العقد (٢٠٠١/١٣٨) الذي تم توقيعه بتاريخ ٢٠٠١/٨/٥ م على أن ينتهي العمل
بالمشروع بتاريخ ٢٠٠٢/٦/٤ م (مدة التنفيذ ١٠ أشهر) وقد تم تمديد فترة تنفيذ العقد لمدة
أربعة أشهر أي حتى ٢٠٠٢/١٠/٤ م ويشمل حجم العمل على تركيب وتشغيل (٦٠) محطة كبرى
و (٢٥) محطة صغرى وتوسعة (٥٢) محطة عاملة في المناطق التعاقد عليها .

لقد تأخر المفاوض في تنفيذ المشروع لأسباب خارجة عن إرادته وتم عرض الموضوع على
معالي الوزير رئيس مجلس الإدارة الموقر بموجب رسالتنا رقم ش ع / رت م / ع ٢٠٠٢/٣٢٨
بتاريخ ١٤٢٢/١١/٢٩ هـ الموافق ٢٠٠٢/٢/١ م (نسخة مرفقة) ووافق معاليه على تمديد فترة
التنفيذ حتى ٢٠٠٤/١/١ م ووجه بإبلاغ مجلسكم الموقر .

وتفضلوا سعادتكم بقبول فائق الإحترام،،،

المهندس / محمد بن علي الوهبي
الرئيس التنفيذي

نسخة إلى :-

- معالي الوزير رئيس مجلس الإدارة الموقر

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



No : _____
Date : _____
Corr. : _____

الرقم : ش ع / رت / ع م / ع ٢٠٠٢ / ٣ / ٢٨
التاريخ : ١١ / ٢٩ / ١٤٢٣ هـ
الموافق : ١ / ٢٠٠٢ / ٢٠٠٢ م

معالي / مالك بن سليمان العمري
وزير النقل والاتصالات
رئيس مجلس إدارة الشركة العمانية للاتصالات

السلام عليكم ورحمة الله وبركاته ،،،

الموضوع: طلب تمديد العقد (٢٠٠١/١٣٨) لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالي في منطقة الباطنة والبريمي ومحافظة مسندم

نود إفادة معاليكم بأن شركة موتورولا تقوم بتنفيذ مشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالي في منطقة الباطنة والبريمي ومحافظة مسندم تحت العقد (٢٠٠١/١٣٨) الذي تم توقيعه بتاريخ ٢٠٠١/٨/٥ م على أن ينتهي العمل بالمشروع بتاريخ ٢٠٠٢/٦/٤ م (مدة التنفيذ ١٠ أشهر) وقد تم تمديد فترة تنفيذ العقد لمدة أربعة أشهر أي حتى ٢٠٠٢/١٠/٤ م ويشمل حجم العمل على تركيب وتشغيل (٦٠) محطة كبرى و(٢٥) محطة صغيرة وتوسعة (٥٢) محطة عاملة في المناطق المتعاقد عليها .

أدناه ملخصاً لسير العمل في المشروع

حجم العمل	ماتم إنجازته
- توسعة ٥٢ محطة عاملة	- تم توسعة جميع المحطات حسب العقد
- تركيب وتشغيل عدد (٦٠) محطة كبرى جديدة	- يجري العمل في (٧) محطات كبرى من أصل (٦٠) محطة
- تركيب وتشغيل عدد (٢٥) محطة صغيرة	- تم الحصول على عدد (٤٢) كروكي من أصل (٥٧) كروكي من وزارة الإسكان والكهرباء والمياه
	- تم الحصول على عدد (٢٥) عقد إيجار من أصل (٥٧) عقد من وزارة الإسكان والكهرباء والمياه
	- تم الحصول على عدد (٧) إباحات بناء من أصل (٥٧) إباحة من إدارات البلدية
	- يجري العمل على تحصيل عقود إيجار عدد (١٩) محطة صغيرة من أصل (٢٥) محطة

١٢

الأسباب الرئيسية لتأخير تنفيذ المشروع :-

- ١- التأخير في إستخراج الكروكيات وعقود الإيجار من قبل وزارة الإسكان والكهرباء والمياة والذي أدى بدوره إلى تأخير عملية تجهيز المواقع من حيث إجراءات فحص التربة لتصميم اساسات الأبراج وخلافهم علماً بأنه قد تمت مخاطبات رسمية في هذا الشأن برسالة معاليكم إلى معالي الشيخ وزير الإسكان والكهرباء والمياة الموقر بتاريخ ٢٠٠١/٩/٣م وأيضاً برسالة أخرى بتاريخ ٢٠٠٢/١/١٩م من مدير التخطيط والمشاريع بوحدة الإتصالات المتنقلة إلى الفاضل مدير الأراضي التجارية والصناعية والزراعية بوزارة الإسكان والكهرباء والمياة وذلك من أجل الإسراع في تكملة الإجراءات.
- ٢- البطء في تخليص المعاملات من قبل إدارات البلديات المختلفة (إستخراج إباحات البناء) والذي أدى بدوره إلى التأخير في تنفيذ الأعمال المدنية من تسوية للأراضي وإنشاء الأبراج والأسوار وتوصيل الطاقة الكهربائية والتي يستغرق تنفيذها شهران لكل موقع .
- ٣- التأخير في إسناد مناقصة الطرق الفرعية لعدم معرفة المواقع علماً بأن يستغرق تنفيذ الطريق الفرعي شهر لكل موقع بعد تحديده .
- ٤- التأخير في إسناد مناقصة خدمات الطائرة العمودية التي ترتبط خدماتها بتحديد الموقع .

بناء على ماورد ذكره أعلاه فإن تنفيذ بقية أعمال المشروع بحاجة إلى تمديد زمنى ليتمكن المقاول شركة موتورولا من التنفيذ .

عليه نرجو أن يتكرم معاليكم بالموافقة على تمديد فترة تنفيذ العقد المذكور أعلاه حتى ٢٠٠٤/١/١م .

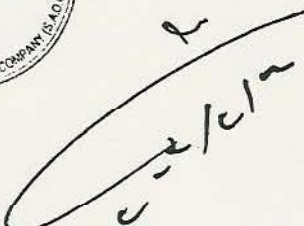
والأمر مرفوع لمعاليكم للتكرم بالتوجيه لما ترونه مناسباً .

وتفضلوا معاليكم بقبول فائق الإحترام ،،،


عبد المهندس / محمد بن علي الوهبي
الرئيس التنفيذي



أصالة سر
مجلس إدارة الشركة
رقم الوارد: ٢
رقم الملف: ٢٠١-٤٢
التاريخ: ٢٠١١/١٢/٢٠
التوقيع:


١٢/١٢/٢٠١١

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



الرقم : ش ع / رت / م / ع / ٢٠٠٣ /
التاريخ : ١٤٢٣ / هـ /
الموافق : ٢٠٠٣ / م /

No : _____
Date : _____
Corr. : _____

المحترم ... سعادة المهندس / سلطان بن حمدون بن سيف الجارثي
الأمين العام لمجلس المناقصات

السلام عليكم ورحمة الله وبركاته وبعد،،،

الموضوع / طلب تمديد فترة تنفيذ الأمر التغييري للعقد (٢٠٠١/١٢٩)
لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف
المتنقل العالمي في القرى الريفية بمناطق الداخلية
والشرقية والظاهرة ومحافظة ظفار

نود إفادة سعادتك بأن الشركة العمانية للاتصالات قد أصدرت الأمر التغييري رقم
(١) تحت العقد رقم (٢٠٠١/١٢٩) المبرم مع شركة سيمنس لتنفيذ مشروع توريد وتركيب
وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في القرى الريفية بمناطق الداخلية
والشرقية والظاهرة ومحافظة ظفار على أن ينتهي العمل في ٣١ ديسمبر ٢٠٠٢ م .

لم يتمكن المقاول من تنفيذ العمل في الوقت المحدد له لظروف خارجة عن إرادته وقد
عرض الموضوع على معالي الوزير رئيس مجلس الإدارة بموجب خطابنا رقم
ش ع / رت / م / ع / ٢٠٠٣ / ٣٢٧ / ١٤٢٢ / ١١ / ٢٩ هـ الموافق ٢٠٠٢ / ٢ / ١ م (نسخة منه مرفقة)
للموافقة على تمديد فترة تنفيذ الأمر التغييري حتى ٣١ ديسمبر ٢٠٠٣ م وأصدر معاليه
موافقة على التمديد ووجه بإبلاغ مجلس المناقصات الموقر بذلك .

وتفضلوا سعادتك بقبول فائق الإحترام ،،،

المهندس / محمد بن علي الوهيبي
الرئيس التنفيذي

نسخة إلى :-

معالي الوزير رئيس مجلس الإدارة الموقر

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



عمان
Oman
مكتب الرئيس التنفيذي
OFFICE OF THE EXECUTIVE
PRESIDENT

No : _____
Date : _____
Corr.: _____

الرقم : ش ع / ر ت / م ع / ٢٠٠٣ / ٢٢٧
التاريخ : ١١ / ٢٢ / ١٤٢٣ هـ
الموافق : ١ / ٢ / ٢٠٠٣ م

معالي / مالك بن سليمان العمري
وزير النقل والاتصالات
رئيس مجلس إدارة الشركة العمانية للاتصالات

السلام عليكم ورحمة الله وبركاته،،

الموضوع : طلب تمديد فترة تنفيذ الأمر التغييري للعقد (٢٠٠١/١٢٩) لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في القرى الريفية بمناطق الداخلية والشرقية والظاهرة ومحافظة ظفار

نود إفادة معاليكم بأن الشركة العمانية للاتصالات قد أصدرت الأمر التغييري رقم (١) تحت العقد رقم (٢٠٠١/١٢٩) المبرم مع شركة سيمنس لتنفيذ مشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في القرى الريفية بمناطق الداخلية والشرقية والظاهرة ومحافظة ظفار على أن ينتهي العمل في ٣١ ديسمبر ٢٠٠٢م ويتضمن حجم العمل على مايلي :-

ماتم تنفيذه	حجم العمل
- تم توسعة مقسم الهاتف المتنقل العالمي في كل من غلاء ونزوى وصلالة	- توسعة مقاسم الهاتف المتنقل العالمي
- تم توسعة وحدات التحكم الرئيسية (BSC) في كل من إبراء والكامل وعبري ونزوى وغلاء .	- توسعة المحطات العاملة
- تم توسيع جميع المحطات العاملة في هذا العقد .	- تركيب وتشغيل عدد (١٠) محطات جديدة و(٩) مواقع لمحطات إعادة البث لوصلات الإرسال
- تم تشغيل محطة واحدة كبرى من أصل (١٠) محطات	
- تم الحصول على جميع الكروكيات لمواقع محطات الهاتف المتنقل العالمي من وزارة الإسكان والكهرباء والمياه .	
- تم الحصول على جميع عقود الإيجار لمواقع محطات الهاتف المتنقل العالمي من وزارة الإسكان والكهرباء والمياه .	
- لم يتم الحصول على كروكيات لمواقع محطات إعادة البث (Repeaters) من وزارة الإسكان والكهرباء والمياه	

الأسباب الرئيسية لتأخير التنفيذ :-

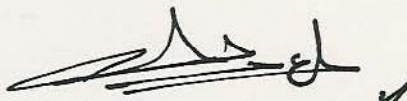
- ١- التأخير في إستخراج الكروكيات و عقود الأيجار من وزارة الإسكان والكهرباء والمياة والذي أدى بدوره إلى تأخير عملية تجهيز المواقع من حيث إجراءات فحص التربة لتصميم أساسات الأبراج وخلافهم علما بأنه قد تم مؤخراً إستلام عدد إثنين من كروكي بتاريخ ٢٠٠٢/١١/١٠م إضافة إلى عقدي الإيجار الخاصين بالموقعين .
- ٢- البطء في عملية تخليص المعاملات من قبل إدارات البلديات المختلفة (إستخراج إباحات البناء) والذي أدى بدوره إلى التأخير في تنفيذ الأعمال المدنية من تسوية للأراضي وإنشاء الأبراج والأسوار وتوصيل الطاقة الكهربائية والتي يستغرق تنفيذها شهران لكل موقع .
- ٣- عدم الحصول على مواقع كان سبباً مباشراً في تأخير إنهاء إجراءات مناقصة إنشاء الطرق الفرعية ومناقصة خدمات الطائرة العمودية .

بناء على ماورد ذكره أعلاه فإن تنفيذ الأعمال المتبقية بالأمر التغييرى بحاجة إلى تمديد زمنى ليتمكن المقاول شركة سيمنس من تنفيذ الأعمال المتفق عليها .

عليه نرجو أن يتكرم معاليكم بالموافقة على تمديد فترة تنفيذ الأمر التغييرى المذكور أعلاه حتى ٣١ ديسمبر ٢٠٠٣ م .

والأمر مرفوع لمعاليكم التكرم بالتوجيه بما ترونة مناسباً .

وتفضلوا معاليكم بقبول فائق الإحترام ،،،


المهندس / محمد بن علي الوهبي
الرئيس التنفيذي



للمانع
المهندس
المهندس
المهندس

أمانة سر
مجلس إدارة الشركة
رقم الوارد: ٤٩
رقم الملف: ٩-٢٢
التاريخ: ٢٠٠٢/١١/١٠
التوقيع:

RECEIVED

06 JAN 2003

Tender & Contracts Dept.
OMANTEL No.....عمانتل
Omantel

مكتب الرئيس التنفيذي

شركة العمانية للاتصالات

توزيع النسخ	مديرة وحدة الاتصالات المتنقلة
	رقم الرسالة: ٢٠٠٢/١٤١٢٩
	تاريخ الاستلام: ١٥١٨ / ١٢
	تاريخ: ٢٠٠٢/١٢/٢٩
	رقم الملف: ١/١٥
	المرجع: طلب تمديد فترة الأمر التغيير رقم ١ للعدد ١٢٩ / ٢٠٠٢

رقم	الجهة المحال إليها	رقم	الجهة المحال إليها
١	مساعد الرئيس التنفيذي	١٢	مدير مكتب إدارة المشاريع
٢	المستشار القانوني	١٣	مدير عام وحدة الاتصالات الثابتة
٣	المستشار الفني	١٤	مدير عام وحدة الاتصالات المتنقلة
٤	المستشار الإداري	١٥	مدير عام وحدة الخدمات المالية
٥	مدير مكتب الرئيس التنفيذي	١٦	مدير عام وحدة الخدمات المساندة
٦	مدير دائرة التدقيق الداخلي	١٧	مدير عام وحدة التخطيط الاستراتيجي والتنمية
٧	مدير دائرة المناقصات والعقود	١٨	مدير عام وحدة خدمات المشتركين
٨	مدير الدائرة القانونية	١٩	مدير عام وحدة الإنترنت
٩	مدير دائرة تقنية المعلومات	٢٠	مدير عام وحدة الموارد البشرية
١٠	مدير دائرة المخاطر	٢١	مدير عام وحدة الشبكات
١١	مدير دائرة التسويق والاعلام	٢٢	مدير عام وحدة الشركة بمحافظة ظفار

للحفظ	للإحاطة	للمراجعة والمناقشة	للدراصة وإبداء الرأي	لإجراء اللازم
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التوقيع	التعليك
	MR. VIJAY please advise اجريه ١٢/١٢/٢٠٠٢ لما لم يوزر من قبل الإدارة لمناقشة مع المهندس (1) Contract no. 2001129 dt. 15.07.2001 - Siemens (2) Project: Expansion of Telecom Services in Oman (Sharqiyah, Dakhliyah, Wustah, D (3) Completion Time: 10 months from LoA (no. 11105/2002) (4) Scope of Works: Supply & Inst. of MSC, BSS and TX Eqp. + 60 BT. + Nizwa MSC Free of Cost + Test Bed at Rusayl Free of Cost.

الشركة العمانية للاتصالات (ش.م.ع.م)
Oman Telecommunication Company (S.A.O.C)



مذكرة داخلية

INTERNAL COMMUNICATION

عاجل
URGENT

من : مدير عام وحدة الاتصالات المتنقلة
الى : المهندس / الرئيس التنفيذي المحترم
اشارتكم :
اشارتنا : ش ع أ / ٢ / ٥ / ٢٠٠٢ / مشاريع ٥ / ١٨١٨ / ٢٠٠٢ م
التاريخ : ٢٤ / ٨ / ١٤٢٣ هـ الموافق :- ١٩ / ١٢ / ٢٠٠٢ م
الموضوع : طلب تمديد فترة الأمر التغييري رقم ١ للعقد ٢٠٠١ / ١٢٩ لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في القرى الريفية بمناطق الداخلية والشرقية والظاهرة ومحافظة ظفار

تحية طيبة وبعد ،،،

بالإشارة الى الموضوع أعلاه، نود أفادتكم بأن الشركة العمانية للاتصالات قامت بإصدار الأمر التغييري رقم (١) لشركة سيمنس للعقد رقم ٢٠٠١ / ١٢٩ لمشروع توريد وتركيب وتشغيل أجهزة لتوسعة شبكة الهاتف المتنقل العالمي في القرى الريفية بمناطق الداخلية والشرقية والظاهرة ومحافظة ظفار والذي ينص على إنتهاء العمل بجميع الاعمال المتعلقة بهذا الامر التغييري بتاريخ ٣١ ديسمبر ٢٠٠٢ م.

ويشتمل تصور العمل النهائي للأمر التغييري رقم (١) للعقد ٢٠٠١ / ١٢٩ على ما يلي :-

تصور العمل	ما تم تنفيذه
توسعة مقاسم الهاتف المتنقل العالمي	- تم توسعة مقاسم الهاتف المتنقل العالمي في كل من غلا ونزوى وصلالة - تم توسعة وحدات التحكم الرئيسية (BSC) في كل من ابراء والكامل وعبري ونزوى وغلاء
توسعة المحطات العاملة	- تم توسيع جميع المحطات العاملة في هذا العقد
تركيب وتشغيل عدد ١٠ محطة جديدة و ٩ مواقع لمحطات معيدة البث لوصلات الارسال	- تم تشغيل محطة واحدة كبرى من أصل ١٠ محطة. - تم الحصول على جميع الكروكيات لمواقع محطات الهاتف المتنقل العالمي من وزارة الاسكان والكهرباء والمياه - تم الحصول على جميع عقود الايجار لمواقع محطات الهاتف المتنقل العالمي من وزارة الاسكان والكهرباء والمياه - لم يتم الحصول على كروكيات لمواقع محطات معيد ال (Repeater) من وزارة الاسكان والكهرباء والمياه، أصل ٩ مواقع

الشركة العمانية للاتصالات (ش.م.ع.م)
Oman Telecommunication Company (S.A.O.C)



مذكرة داخلية
INTERNAL COMMUNICATION

الأسباب الرئيسية لتأخر العمل هي:-

- 1- تأخر في أستخراج الكروكيات وعقود الإيجار من قبل وزارة الإسكان والكهرباء والمياه والذي أدى إلى تأخير عملية تجهيز المواقع من حيث إجراء فحص للتربة لتصميم أساسيات الأبراج ... الخ، علما بأنه تم أستلام مؤخرًا بتاريخ ١٠/١١/٢٠٠٢ كروكي لموقعين وهما بعد و مس من المنطقة الشرقية ضمن هذا الأمر التغييرى بالاضافة إلى عقود الإيجار الخاصة لهذين الموقعين من قبل وزارة الاسكان والكهرباء والمياه.
- 2- بطء في تخليص المعاملات من قبل إدارات البلدية (استخراج إباحات البناء) والذي أدى بدوره إلى تأخر تنفيذ الأعمال المدنية من تسوية الاراضي وإنشاء الأبراج والاسوار وتوصيل التيار الطاقة الكهربائية والذي يستغرق تنفيذها في المعدل شهرين لكل موقع من تاريخ استخراج إباحات البناء من ادارات البلدية.
- 3- التأخير في عملية اسناد مناقصة انشاء وشق الطرق (ACCESS ROAD) والذي بدوره أدى إلى تأخير في تنفيذ المشروع ويستغرق انشاء هذه الطرق في المعدل شهر لكل طريق من تاريخ توفر المقاول الذي سيقوم بتنفيذها.
- 4- التأخير في عملية اسناد مناقصة خدمات الطائرة العمودية والذي أدى بدوره إلى تأخير اجراء المسوحات الميدانية اللازمة لاختيار بعض قمم الجبال الشاهقة وذلك لتركيب عدد من أجهزة معيد البث للارسال (MICROWAVE) على هذه القمم وذلك لربطها ببعضها لبعض في هذه المناطق الجبلية. علما بأن دائرة العقود والمناقصات قد اسندت عملية خدمات الطائرة العمودية لأحدى الشركات في بداية شهر نوفمبر من هذا العام، وسوف يتم القيام المسوحات لهذه المواقع بتاريخ ٤/١١/٢٠٠٣م ومن المتوقع ان يستغرق المسح شهرين من هذا التاريخ، و يستغرق التركيب والتشغيل في كل وصلة إرسال حوالي شهر تقريبا من تاريخ حصولنا على الكروكي لهذا الموقع.

على ضوء ما تقدم ولعدم أمكانية تنفيذ هذا المشروع في المدة المحددة وهي ٣١ ديسمبر ٢٠٠٢م نرجو التكرم بالموافقة على تمديد فترة هذا العقد إلى تاريخ ٣١ ديسمبر ٢٠٠٣م. وتفضلوا بقبول فائق الاحترام،،،،،

غلام بن إبراهيم البلوشي
مدير عام وحدة الاتصالات المتنقلة

الشركة العمانية للاتصالات (ش.م.ع.م)
مكتب الرئيس التنفيذي
الوارد : ٢٧٤٥
الصفحة : ١٠
التاريخ : ٢٠٠٣/١٢/٢٩
التوقيع : صايه

Annexure 4
Correspondences on Arbor Billing System project

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY

Ref: OMANTEL/PO/FIN/INT-01/637/03
Date: 23rd June 2003



“Without Prejudice”

Mr. Ashok Sardiwai
The Chief Executive Officer
United Telecommunications LLC
Sultanate of Oman

After Compliments,

Sub: CCBMS Project

This is with reference to your letter No. Unitel/AS/2202/03 dated 19th June 2003.

As discussed in the meeting held on 16th June 2003 in the presence of H.E The Chairman of Omantel Executive Committee, Unitel were requested to send a letter to confirm the completion of various stages of the GSM Phase and the expected date of readiness to go live. Your above referred letter implies that after testing by the Omantel testing team, expected by you to be completed by 25th June 2003, the system would be ready to go live. We have to make clear that Acceptance Testing in the presence of Omantel shall not start **unless Unitel shall submit copies of their test results to the Employer (Omantel) to prove that the GSM CCBM Systems is in such a condition that Interim Acceptance may be started. Such Interim Acceptance shall not be started before the Contractor has proved to the satisfaction of the Employer, through his inspection and test results, that the Section is ready for issue of Interim Acceptance Certificate. Please refer to Article 15.4.1, 15.4.2 & 15.4.3 of the contract.** Omantel testing team has scheduled their retesting by the 2nd July 2003. Considering the various events to date, we have to point out the following:

1. Defects status – Resolution date for 9 new defects are yet to be given by Unitel (Please refer to the enclosed list of defects). These are defects that have come to light during the retesting stage wherein Omantel expected resolution of old defects, rather than finding new ones. Also some of the defects have been resolved through workaround solutions, which is not acceptable to Omantel.
2. The billing details and analysis for the month of May 2003 are yet to be received after correction of errored bills.
3. The journal output file for updating the General Ledger is not yet received in its expected form.
4. Inability to rate roaming calls in the case of IMSI swapping is to be addressed adequately, so as to ensure revenue assurance.
5. The current billing performance along with the various procedures are not acceptable to Omantel. A detailed procedure manual is to be produced by Unitel prior to June 2003 bill run which can be followed by our Operations

team to verify the needs & applicability of each of the steps involved in the billing process.

The above issues are critical and the expected date given by Unitel i.e. (25th June, 2003) for resolving the above issues and to go live with the CCBMS system is not realistic nor practical.

The testing of defect resolution has begun only on the O M module. B P and OSS are to be commenced during the course of this week.

Omantel is not willing to embark on yet another GO LIVE scenario without the resolution of all of the above issues, and ask Unitel to give precise resolution dates for each of the above issues with details of expected schedules for applying the resolution, expected period required for testing the defect patches, deployment strategy and schedule for implementing the corrected client software on all of Omantel and OIFC users PC's.

Unitel have to provide the detailed plan and schedules to achieve the above, to our **Project Management Office** at the earliest and progress the project from there. Omantel management again reiterate that GO LIVE for the GSM CCBM Systems will be considered only after Unitel consortium satisfy all of Omantel's requirements.

It is also imperative, that Unitel consortium prepares an escalation process for timely resolution of mission critical defects and submits the same to Omantel for approval.

We look forward to receiving the above mentioned plans and schedules at our **Project Management Office** at the earliest to facilitate the Omantel Project team to meet with your Consortium Project Team and plan the necessary steps required to finalize project plan for live operation of GSM CCBM Systems which cannot take place unless the results of the tests show that the works are according to the specifications. If the results of the tests show that the works were not in compliance with the specifications in such a way that Omantel requirements were not met, the deficiencies will be listed and acknowledged by both the parties. The Contractor shall rectify such deficiencies within a reasonable period to be mutually agreed upon. The Interim Acceptance procedures as detailed in the contract shall be repeated (refer Article 15.4.4 & 15.4.6 of the Contract). Finally we have to remind Unitel that we are in the process of testing and retesting since December 2002 and Omantel cannot continue in this manner indefinitely.

With best regards,

Eng. Mohammed Ali Al Wohaibi
Executive President

Cc: HE Chairman – Omantel
HE Chairman – Executive Committee, Omantel
Executive Vice President – Omantel
Legal Advisor – Omantel
Director – Project Management Office



24/6/03

United

Telecommunications L.L.C. (UNITEL)

المتحدة

للاتصالات ش.م.م.

ص.ب: ١٦٧٦ مطرح، الرمز البريدي ١١٤، سلطنة عمان، تليفون: ٧٩٦٦٣٥ / ٧٩٦٦٣٦، فاكس: ٧٩٦٦٣٩ / ٧٩٦٦٣٧، ص.ت رقم: ٥٨٦٧٧/٧
O. Box : 1676 Muttrah, Postal Code 114, Sultanate of Oman, Tel. No. : 796635 / 796636, Fax No. : 796639 / 795797, C.R. No. 1/586777

التاريخ: ١٧ مايو ٢٠٠٣ م
المرجع: يونيتل/ أس/ ٣/٢٢٠٠

المحترم

المهندس/ محمد بن علي الوهبي

الرئيس التنفيذي

الشركة العمانية للاتصالات ش.م.م

ص ب ٧٨٩ روي الرمز البريدي ١٢

مسقط - سلطنة عمان

تعية طيبة .. وبعد ...

الموضوع: عقد رقم ٢٠٠١٠٤٣ الخاص بالتوريد والتركيب والتشغيل التجريبي
لأنظمة العناية بالعميل والقوائم والتوسط - مشروع (CCBMS)

نود الإشارة إلى رسالتكم رقم عمانتل/بي أو/مالية/أي إن تي - ٠٣/٤٢٤/٠١ المؤرخة في ١٠ أبريل ٢٠٠٣ م. وحيث أن الرسالة المذكورة قد أشارت إلى بعض الأحداث المتعلقة بشهر مايو ٢٠٠٣ م، لذا فإن التاريخ الصحيح للرسالة يجب أن يكون في تاريخ ١٠ مايو ٢٠٠٣ م.

إن المواضيع المطروقة في رسالتكم ذات طبيعة تتعلق بالناحية الفنية أو ناحية العمليات، ولسهولة الرجوع لهذه المواضيع فلقد قمنا بإعادة ذكرها مع ذكر ردنا المحدد عليها وذلك في الملحق (أ) .. كذلك فإن ردنا يجب أن يقرأ مقروناً مع خلفية المشروع. في عام ١٩٩٩م اقترحت المتحدة للاتصالات أن يتم تنفيذ المشروع الخاص بالتوريد والتركيب والتشغيل التجريبي لأنظمة العناية بالعميل والقوائم والتوسط - مشروع (CCBMS)، وذلك باستخدام المنتجات الخاصة بشركتين قياديتين على الصعيد العالمي هما شركة كومبتيل (Comptel) وشركة كينان (Keenan)، هذا بالإضافة إلى استخدام خدمات التنفيذ الخاصة بشركة تي سي إس (TCS) والتي تعتبر أكبر شركة لخدمات تقنية المعلومات في العالم يعمل بها أكثر من ٢٢,٠٠٠ من خبراء برامج الكمبيوتر. ومنذ بداية إكمال فكرة المشروع مرت الشركة العمانية للاتصالات بعدة تغييرات رئيسية وذلك بتحويلها من الهيئة العامة للمواصلات السلكية واللاسلكية (باعتبارها هيئة احتكارية مملوكة للحكومة) إلى شركة مساهمة تملك الحكومة كل أسهمها ثم إلى شركة أعيد تنظيمها لمواجهة تحديات السوق الحرة المفتوحة .. هذا ولقد كان لهذه التغييرات خلال فترة التحول هذه، عظيم الأثر على المشروع والذي تم تصميمه لبرمجة الحاجيات التجارية والعمليات التنظيمية للشركة. ومنذ بداية المشروع أوضحنا للشركة العمانية للاتصالات/ الهيئة العامة للاتصالات السلكية واللاسلكية بأن هذا المشروع لن يمكنه من تقديم أي فوائد تجارية هذا بالإضافة لتعرضه للضائقات والاختناقات من حيث التنفيذ والتشغيل، دون أن تكون هنالك أي مشاركة إيجابية أو قنوات تخاطب واضحة من جانب الشركة العمانية للاتصالات ..

ص.ب : ١٦٧٦ مطرح، الرمز البريدي ١١٤، سلطنة عمان، تليفون : ٧٩٦٦٣٥ / ٧٩٦٦٣٦، فاكس : ٧٩٦٦٣٩ / ٧٩٥٧٩٧، ص.ب. رقم
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عليه لم تستطع الشركة العمانية للاتصالات من المحافظة على المستوى المطلوب من
الإلتزام تجاه المشروع وذلك في أغلب الأحوال بسبب التغيرات في النواحي التنظيم
والعمليات التجارية المشار إليها سابقاً

إن السجل الخاص لشركائنا التجاريين وجدارتهم : شركة سي إس جي سيستمز (iG Systems)
وشركة كومبتييل (Comptel) وشركة تي سي إس (TCS) بالإضافة لشركة إمتا
(الشركة الأم المالكة لشركتنا) ، يمنحنا الكثير من الثقة بأن العقبات الرئيسية الخاص
بالمرحلة المتبقية من تنفيذ المشروع يمكن معالجتها في ظرف شهر واحد . عليه ف
التمديد لفترة شهرين يعتبر واقعياً نظراً لقرار الشركة العمانية للاتصالات في تاريخ /
مايو بالرجوع من نظام مشروع (CCBMS) للنظام القديم . كذلك يرجى الملاحظة إلى
مجهودات المتحدة للاتصالات يجب تدعمه بنفس القدر من الإلتزام من جانب شركة عم
للاستثمارات والتمويل والتي تقوم بإدارة عمليات فواتير العملاء نيابة عن الشركة العم
للاتصالات .. كذلك فإن الدعم المستمر والفعال من جانب فريق الشركة العم
للاتصالات يعتبر عاملاً حاسماً آخر في إكمال المشروع بنجاح .

لقد حظيت المتحدة للاتصالات بفرصة أن تكون عنصراً مشاركاً في أحد أهم مشاريع
المعلومات في زمننا المعاصر . والذي تم طرحه من قبل الشركة العمانية للاتصالات
ونسبة لاقتناع شركائنا بقدرات شركتنا وكفاءتها والتي تجلت أثناء تنفيذ المشروع ، فإ
قد قاموا بمنح المتحدة للاتصالات كشركة عمانية شابة حق البراءة الخاص بتأسيس مر
للامتياز لتطبيقات الاتصالات بغرض تقديم الدعم لجميع أنحاء العالم العربي وأقط
المحيط الهندي .. علماً بأن القاعدة الرئيسية لمركز الامتياز سوف تكون في واحة المعر
بمسقط (والتي تم تأسيسها بمبادرة كريمة من جانب وزارة التجارة والصناعة)
وسوف تساعد هذه المبادرة من جانبنا في خلق وظائف عالية المستوى في قطاع خدم
الاتصالات وذلك للقوى العاملة في سلطنة عمان ودول مجلس التعاون الخليجي . وبه
أيضاً استغلال مركز الامتياز لتقديم الخدمات الخاصة بالحصول على البضائع والخدم
وذلك بالنسبة للأقطار المجاورة الأمر الذي يسهم في خلق دخل من عائدات التصدير لل
ويؤدي للاعتراف بفضل سلطنة عمان في تبنيها لهذه المبادرة .. عليه فإن مشر
(CCBMS) سوف يتكامل بشكل ممتاز مع الأهداف المرسومة من قبل وزارة التج
والصناعة ووزارة القوى العاملة الخاصة ببناء هذه الأمة بسواعد أبنائها .

هذا ويشير موقع الإنترنت الخاص بالشركة العمانية للاتصالات إلى أن الشركة ملت
بخدمة البلاد والمواطنين عبر خدمات هاتفية عصرية ذات قيمة إضافية . عليه فإن
مشروع (CCBMS) سوف يمكن الشركة العمانية للاتصالات من تحقيق هذا
بالإضافة لتحقيق القوائد التجارية التالية :

- زيادة الإيرادات والتحكم في التكلفة والمخاطر : وذلك عبر الآراء
المنقارية لعملية الإنفاق من جانب العملاء واستراتيجية التسعير المرنة وبرامج
التحكم المنتظمة ، التحكم الفعال ، في الدين ، الخ

United

Telecommunications L.L.C. (UNITEL)

المتحدة
للاتصالات ش.م.م.

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• إرضاء العملاء : وذلك عن طريق الإدارة السريعة لطلبات العملاء
• والخدمات المبرمجة والتحكم الفعال لشكاوي العملاء وعوائق النظام والمعلومات
• الشاملة الخاصة بفواتير العملاء .
• الوفاء بالمتطلبات القانونية للهيئات المنظمة لصناعة الاتصالات .
• خدمات ذات قيمة إضافية : تقديم خدمات ذات قيمة إضافية مثل (mobile parking) و (enhanced directory assistance) و (hosting of real time payment system) .. إلخ .

لذا وحتى نتمكن من التنفيذ العاجل والفعال لهذا المشروع فإتبه من الضروري أن نعمل معاً
وبشكل متعاون دون أي إهدار لطاقتنا ومواردنا في تبادل اللوم خصوصاً في هذه المرحلة
المرحلة من المشروع ، حيث أن كل من الطرفين يعمل لتحقيق نفس الهدف المشترك
والمتمثل في إكمال المشروع بنجاح .
عليه واعتباراً للمصالح طويلة الأمد لكل من الشركة العمانية للاتصالات والتمتحدة
للاتصالات هذا بالإضافة للحاجيات القومية الملحة فبتنا نرجو موافقتكم على المضي قدماً
في خطة المشروع المتفق عليها سابقاً ، شاكرين لكم كريم تعاونكم المستمر معنا .
وتفضلوا بقبول فائق الاحترام ...

Asma sandiwal

أشوك سارديوال
الرئيس التنفيذي

نسخة :
معالي/ رئيس مجلس إدارة الشركة العمانية للاتصالات
سعادة/ أمين عام مجلس المناقصات
سعادة/ رئيس اللجنة التنفيذية - الشركة العمانية للاتصالات
سعادة/ المستشار القانوني - الشركة العمانية للاتصالات
صاحب السمو السيد/ طارق بن شبيب بن تيمور - المتحدة للاتصالات
الفاضل/ المستشار القانوني - المتحدة للاتصالات

Annexure I

Response to Letter Omantel/PO/FIN/INT-01/03

Omantel letter : As you are aware, the above project has gone through series of delays and glitches right from its inception and subsequently was scheduled to be completed in all its aspects by August 2002. The deadline was not met and Omantel had to further extend the delivery schedule. Therefore, to avoid further delays and to facilitate better management of the project, Omantel had to split the project into 2 phases the 1st phase for GSM billing and the 2nd phase for PSTN billing. The 2nd phase was rescheduled to be completed by 1st March 2003.

Unitel : A project of this size and complexity is expected to go through glitches and delays. What is required is to understand the reasons behind the delays and take corrective action in real time. Item no. 2 of the Annexure gives full chronology of delays from Omantel.

The statement that Omantel had to adopt phased approach because of delays is factually incorrect. Page 133 of the Tender document states "The proposed system should replace the Wireline Billing System immediately and GSM and Internet Billing System in the second phase and interface to all the existing modules and systems at GTO. The Tenderer should explain in their offer how they propose to do this with no disruption to the functioning of existing systems. The existing hardware is available to be used by the Tenderers to upgrade in order to facilitate the implementation of the new systems."

Omantel's decision to take GSM billing in the first phase of the project (contrary to what was stipulated in the Tender document) resulted in non-availability of the existing hardware for testing/development activities. Resultant additional load on the new hardware therefore adversely affected performance of live run and project schedule. We propose a meeting between Omantel and Unitel to look at the hardware requirements and other issues.

Omantel letter : Consequently new implementation schedules for the 1st phase (GSM) was submitted by Unitel vide their letter No.UTL/CCBMS/00416/AL. Despite Omantel's constant follow up and close support and the affirmations received from Unitel to meet the schedules, the deadlines of many of the major tasks were again not met :

Task	Scheduled	Actual
Acceptance Testing	09-02-2003	15-02-2003
Parallel run – TABS master	05-02-2003	16-02-2003
Parallel Run – Arbor master	01-03-2003	15-04-2003
Billing Performance	05-04-2003	Unknown

Unitel : The CCBMS contract start in the true spirit of partnership. By taking ownership of the Project Director role the Ex President of Omantel wanted to provide required resources and ensure coordination of various business units of the organization. Rapid organizational changes witnessed the Project management responsibilities handed over to persons of lesser profile. Please note that the above statement is not a reflection of subsequent PMs' capabilities or commitment. However, this project which encompasses all divisions of Omantel (Customer Services, Tenders & Projects, Finance, GSM and fixed Operations, Marketing, Planning etc.) is expected to run into problems at various stages of implementation without direct involvement of the top of the organization who has control over all resources of the organization and has authority to deal with external agencies involved with the project.

Lack of elaborate handing-over process from one Project Manager to the next caused confusion in project deliverables, roles of various parties and project priorities. This fact coupled with rapid organizational changes resulted in delays referred hereunder.

No excuse

Omantel Tasks	Schedule	Actual	Delay
Contract signature	Nov 2000	April 2001	6 months
Mediation Functional Specification sign off	June 2001	June 2002	12 months
Provision of links to switches	November 2001	GSM : June 2002 PSTN : <u>Not yet</u>	GSM: 8 months PSTN : ?
Approval of customisation	October 2001	February 2003	16 months
Provision of complete configuration for GSM including charge band matrix	September 2001	November 2002	14 months

TEL

Our response to delays mentioned in your letter is given below.

Task	Scheduled	Actual	Reasons
Acceptance Testing	09-02-2003	15-02-2003	This refers to UBCC testing for which the contract was finalized on 23 rd February 2003
Parallel run - TABS master	05-02-2003	16-02-2003	Same as above and due one week of Eid Holidays the Parallel run could not be started.
Parallel Run - Arbor master	01-03-2003	15-04-2003	As the parallel run for TABS was delayed Omantel decided to run the test for one full calendar month and informed Unitel to conduct Parallel run for Arbor in April as at least a week is required to make the system ready, the Parallel run was implemented on 15 th of April 2003.
Billing Performance	05-04-2003	Unknown	Refer to point 1 of the Response

Omantel is requested to realign the project period to reflect the above dependencies and those listed in the first presentation to the Executive president on February 9, 2002.

3. **Omantel Letter** : The above delays have forced Omantel resources to divide their attention to multiple tasks, thus affecting the quality of the testing at various levels and also caused a large team of Omantel staff to work extended hours with Acceptance testing, Parallel run and Live run activities overlapping each other.

Unitel : As per the Contract, the deliverables from Unitel are subject to availability of adequate number of "appropriately qualified staff". This concern was addressed by "outsourcing" option of our Tender response. Further to this, Unitel through various communications has requested Omantel to enhance number of staff and train them adequately. Failure to take our advise on board resulted in extended working hours for limited number of resources deployed by Omantel. This was compounded by

various phases of project (testing, parallel and live runs) undertaken simultaneously. Also, please refer to item 1 above which required phased project implementation methodology.

To ease undue pressure on current project team and to ensure long-term success of the project, Omantel is requested to take an early decision on the manpower Subcontracting/Outsourcing tender to induct sufficient number of adequately trained staff.

4. **Omantel letter :** Despite this Omantel continued to show goodwill and granted several extensions for completing the implementation and waited patiently for schedules to be met. We regret to say that the project is far from being stable.

Unitel : For an IT project as complex as the CCBMS, timely completion and success depend on equal sustained support from the Client and the Supplier. Both parties need to work in tandem, look at realities as a team and avoid non-constructive escalation.

Problem stated in the Omantel letter are real but solvable. Unitel has used required escalation to resolve issues as soon as possible. Similar support from Omantel has not been forthcoming. However, non-constructive escalation from Omantel resulted in non-attainment of critical success factors.

5. **Omantel Letter :** Due to a large number of defects not being resolved within the specified time, Omantel had to delay the launch of the system by 2 months (in addition to the earlier delays) and moved the CCBMS system to live platform during April 2003, with a number of defects still unresolved. Unitel had committed that these would be resolved before the billing for the month of April 2003 is commenced. However to our grave concern and disbelief, many of the defects still remain unresolved, including not rating 40 of the 140 live calls made for testing the mediation and rating of the system which translates to over 28% revenue loss. Revenue assurance is a contractual obligation on the part of Unitel and 28% revenue loss constitutes a clear material breach.

→ **Unitel :** Severity 1 and 2 defects identified during the acceptance testing were resolved within few days of the schedule. Remaining issues will be resolved in accordance with mutually agreed Acceptance Testing Strategy document.

The end-to-end billing process including data flow from switches to mediation to billing system was tested during the Acceptance Testing. This process was verified and accepted by Omantel. However, Unitel has agreed to revalidate this process in light of the discrepancy in the April 2003 monthly billing amount. We will establish the reasons for the

discrepancy by Saturday the 25 April. However, it should be noted that in the absence of an established automated revenue assurance system at Omantel, it is difficult to establish a true benchmark for comparison. Some of the observations on discrepancy are :

- During the Acceptance Testing it was observed that if the subscriber moves from one place to another during the call, the Cell Id used for TABS is different from the Cell ID provided for CCBMS system.
- On comparison of two sample bills generated by TABS and CCBMS it was observed that for the same call, the call duration is same but billed amounts are different.
- It was observed that in bills generated from TABS there have been incidences of duplicate calls.

Omantel is responsible for operations of the system. Such operations include but not limited to configuration of additional network elements business rule changes, data integrity etc. The operational aspect has direct impact on billing information produced from the system. Unitel's role in revenue assurance is confined to providing correctly functioning products and initial configuration; and therefore the company can not accept any responsibility for revenue loss. Further the entire billing cycle has elements which are not under Unitel's control, e.g. links between switches and Mediation platform, datacommunication network, transfer of data to OIFC etc.

6. **Omantel letter :** Omantel has continuously supported Unitel in its effort in implementing the project and has deployed large resources (over 400 staff at various points of time) in order to aid Unitel in achieving its schedules. Despite this, the acceptance test period was prolonged, as the number of major defects was too high to move to the parallel run phase. The parallel testing phase was also extended due to Omantel not having achieved the desired confidence level in the solution and Unitel's support. However in view of Omantel's commitment to its customers on the matter of launching the new billing system and also provide Unitel the opportunity to keep their commitment, Omantel decided to go live on 15th April 2003 again with a further delay of 10 days from the latest rescheduled date.

Unitel : Acceptance testing is an integral part of the project. We acknowledge dedicated efforts of the Omantel team to this effect. We presume most of the staff (400 number), as referred to in your letter, are CSRs who were trained to undertake operation of new systems. The efforts will not go waste as the Omantel customers will be unable to see benefits unless they are communicating with adequately trained resources.

7. **Omantel Letter :** Moreover, the billing amount for the month of April 2003 as given by Unitel is less than that of the slave system – TABS b

EL

R.O.592,000 which is consequential revenue loss for Omantel. On the other hand the billing on the old system (TABS) was completed within 10 hours on the 5th of May, 2003 resulting in the accurate revenue of Omantel. This has greatly affected Omantel's confidence in the stability and reliability of the solution and the support being provided by Unitel. Therefore proceeding with the new CCBMS would lead to substantial revenue loss for Omantel and loss of confidence of Omantel subscribers and partners.

Unitel : Please refer to item No.5 of this letter. ?

8. **Omantel Letter** : At this juncture and under the above circumstances, Omantel has no alternative but to do the following :

- (a) To revert back to the Bills generated from TABS system for the month of April 2003 and ignore the Bills from CCBMS in order to avoid revenue loss and further inconvenience to subscribers and consequent damage to Omantel reputation.
- (b) To suspend all the activities on the 2nd phase (PSTN) of the project. Kindly consider this as a notice of cancellation of the 2nd phase of the Contract.

Unitel :

(a) We respect Omantel's decision to generate April bills from the old system. However, this was a unilateral decision from Omantel without full investigation of reasons behind the discrepancy. ?

what?
(b) Unitel proposed a convergent billing system . A phased approach was taken on the basis of Omantel's request. It may be noted that most of the work related to PSTN implementation has already been finished by Unitel. This work should be compensated by Omantel in line with terms of the Contract.

9. **Omantel letter** : Omantel also reserves the right to cancel the entire project if any of the items mentioned below relating to the 1st phase of the project remains unresolved within one month from the date of this letter.

- (1) All defects raised and reported during acceptance testing are resolved completely.
- (2) All defects raised and reported during parallel run are resolved completely.
- (3) All defects raised and reported during live run are resolved completely.

(4) Performance related to billing and rating is brought to the levels as mandated in clause A.2.1 & A.2.2 of the Tender Documents Annexure II which reads as follows :

Quote :

A.2.1. "The goal should be to run balanced bill cycles that must be completed within a nightly batch window of 7 hours".

A.2.2. "There will be generated 2 million CDR's daily, and this should be rated within 2 hours"

Unquote.

(5) To demonstrate Revenue Assurance through full reconciliation with the TABS system keeping in mind the various issues enumerated in our letter Omantel/PMO/CCBMS/205/2003 dated 9/4/2003 (copy attached for ready reference).

(6) Performance and reliability of the system must be enhanced to the required levels in order to avoid :

- a. Service activation delays
- b. Reconnection delays – both manual and through payment posting
- c. Rating of usage for "usage based" credit control
- d. Using bills from the old system

Unitel : In our response to the we had clearly stated support and problem resolution methodology. Certain issues requiring major source code changes take more time to resolve. However, Unitel escalated such issues to the principals who in turn used their best endeavours for early resolution.

- 1) All Severity 1 and 2 defects were resolved by March 25, . Remaining low severity issues will be resolved in line with support methodology detailed in our response to the tender.
- 2) Operational issues encountered during the Parallel Run and perceived as defects were reported to CSG Systems. However, with removal of Parallel Run environment it will not be possible to simulate/reproduce these defects.
- 3) A CSG Systems consultant will reach Muscat on Monday the 19th May for faster resolution of issues reported during Live Run. This is in

addition to the continued efforts of CSG System's worldwide support centers at Paris, France and Denver, USA.

- 4) Reference to system performance is out of context. For your perusal, full contract clauses are reproduced below :

Quote

"Clause A.2.1. : Currently all 300.000 lines are billed in 1 bill cycle monthly, and the successful Tenderer must be able to support this option at the appropriate volumes (approximately 60 million rated calls monthly). The Tenderer should indicate how long the processing of a single cycle with the above-referenced volumes would take.

However, GTO wishes to move towards the utilization of multiple billing cycles, including the option of multiple cycles within a single day. Therefore, the Tenderer should indicate how GTO can utilize the proposed system to maximize the flexibility of billing cycles.

The goal should be to run balanced bill cycles that must be completed within a nightly batch window of 7 hours."

Unquote

Further to this, as part of clarifications, we have responded to system performance as follows "Clarification to Tender 54/99 (12/12/99) Clause 6.1: During the project implementation phase, Omantel will be asked to complete a hardware signing questionnaire which includes questions such as future growth, processing cycles, concurrent users, subscribers etc. Using this information, Unitel will size system based on Omantel's unique needs ensuring all factors are taken into account and the processing load is spread allowing optimum performance throughout the day."

Usage of the CCBMS has brought down end-to-end billing cycle (Bill Run and Formatting) to less than 40 hours by system optimization. This compares very well with total billing cycle time of more than 96 hours for the TABS system. By splitting monthly bill run into 4 or more parts (as recommended in the IPA document) individual bill runs can be brought under 10 hours. Online performance of the system especially related to creation of customer records has witnessed many fold improvement as compared to old TAB system. Further improvements could have been achieved if Omantel had considered Unitel recommendations for hardware upgrades during the IPA phase.

Quote

" Clause A.2.2. There will be generated 2 million CDR's daily, and this should be processed within 2 hours "

Unquote

Existing hardware and rating engine is capable of processing 2 million CDRs in less than 2 hours.

5) Unitel is in the process of revalidating end-to-end billing process. Recommendations will be submitted to Omantel by Saturday the 23rd May. Validation of the Revenue assurance process will be governed by the document submitted to Omantel on 15th May. Also, please refer to item no - of this letter.

6.a) Majority of Service activation delays are because of operational issues.- related to experience and training of CSRs. Small number of defects related to product functionality will be resolved shortly.

6.b) Manual Reconnection is not part of the Scope of the Project. In fact this requirement was communicated to us after start of live run. A work-around, which is not an optimum solution by our own admission, was suggested to Omantel. This issue need to be addressed outside the current Scope of Work.

Currently OIFC is not willing to use Online or Batch mode posting directly in to the CCBMS system. This issue needs to be resolved between Omantel and OIFC.

6.c/d) Need further clarification from Omantel.

10. **Omantel letter :** In its first 20 days of live operation, the above issues have brought embarrassment and the anger of the subscribers and have caused great harm to the reputation and image of Omantel.

Unitel : We empathise with Omantel's dilemma in facing the customer dissatisfaction. However, most of the customer facing activities (order management, complaint management, payment and reconnection) are under Omantel or OIFC jurisdiction. Unitel's responsibility is towards CSR training, handholding support and taking care of technical issues related to applications. *What about service activation?*

The customer facing plan has been discussed on several occasions with the Omantel GM Customer Services and other officials. However, none of our recommendation to reduce application rollout pains have been acted upon. Complete lack of transparency between Omantel and Unitel on issues of handling "Customer Touch Points" aggravate the situation to dissatisfaction level".

11. **Omantel letter :** We would like to emphasize again, that Omantel has been very cooperative right through the various phases of this project, and

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

310
5/11/03

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY

مذكرة داخلية
Internal Memo



From	:	Executive Vice President	:	من
To	:	Executive President	:	إلى
Your Ref	:	-	:	إشارتكم
Our Ref	:	Omantel/EVP/111-3 1632 1003	:	إشارتنا
Date	:	21 st September 2003	:	التاريخ
Subject	:	CCBMS Solution for PSTN Phase	:	الموضوع

After Compliments,

Enclosed herewith please find a report from CCBMS team on using the CCBMS solution for the PSTN phase, for your information and perusal.

I agree with the contents of the report and its recommendations. I may also add here that since we are going to resize the hardware, renegotiate software licensing, redefine functional requirements and reconfigure the whole system, to me its sounds like a new project altogether. Therefore, in line with the enclosed report, we recommend that Phase 2 be cancelled and treated as a new project and tendered-out. In my opinion, Phase 2 should be evaluated and project managed separately.

Best regards

Dr. Amer Awadh Al Rawas

Encl: as above

Agree
4/11/03
D. Ahmed - FFI
Pillai - File
4/11/03

Report of the Omantel CCBMS Team on using the CCBMS solution for the PSTN phase

The current core CCBMS team comprises of over 80% members of the team as were at the beginning of the project. The project began with high expectancy both from the solution as well as the vendors – M/s Unitel. With the various delays and events that have occurred during the Phase I implementation, the team would like to place before the management, an objective evaluation on the pros & cons of going ahead with the PSTN Phase (Phase II) of the project with the current solution. In preparing this report, we have not gone into details that have been already covered in our previous reports.

PROS:

1. The team and all concerned departments within Omantel and the Unitel team have spent considerable time and effort in completing over 70% of the requirement study of the PSTN Phase.
2. The core software of the solution is basically a PSTN solution.
3. Initial licenses for the PSTN Phase have already been paid for, but can be utilized for GSM subscriber growth.
4. Connectivity between all PSTN exchanges has been completed for the use of the Mediation & Service activation processes provided by the solution.
5. Omantel has contractually committed to go through both the phases with the current vendor provided that Omantel is satisfied with the overall performance of the solution.

CONS:

1. Performance of Hardware & Software:

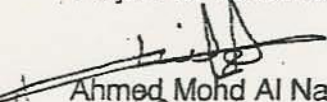
- a. The present Hardware and Software have not performed to the specified levels for the GSM Phase, taking more than twice the time as against the old system and more than thrice the time as specified by the main vendor during the evaluation process. Time taken by CCBMS is 30 hours. Time taken by the existing billing system (TABS) is 12 hours. Time specified during evaluation is 8 hours for 50 million call records.
- b. The number of call records to be processed per month in the GSM phase is about 40 million. The number of call records to be processed in the PSTN phase is over 100 million. If PSTN phase is taken up it would result in a billing time of over 70-80 hours, after which the bill extraction and formatting will need another 40-50 hours. This would delay the monthly bill run in addition to requiring more resources.
- c. This performance would result in Omantel not being able to send out bills to the subscribers until after the 10th of the month. Currently Omantel starts sending bills out by the 4th of the month.

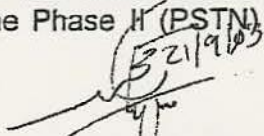
- d. As a result, Omantel will not be able to monitor the usage of the subscribers for these 6 days, and misuses of subscribers will lead to contractual issues with OIFC. (This is because Unbilled Credit Control (UBCC) program as well as other backend processes can not be enabled during bill run)
 - e. As per report received from HP (Hardware supplier), Hardware relating to all modules of the solution needs resizing and reconfiguration leading to additional costs.
2. Additional services have been introduced or are being planned for introduction in the near future, leading to further requirement study and variation orders.
 3. The inexperience of the vendor has led to delays of over 1 ½ years in going live and despite close interaction and cooperation the confidence of the team in the vendor's ability to deliver has not improved.
 4. This lack of experience in handling implementation of such large projects has caused a lot of grief and suffering to all our valued subscribers, partners and the staff / departments closely involved in the implementation of this project.
 5. The loss of revenue experienced in the first GO LIVE exercise would have continued if not pointed out by the CCBMS team.
 6. Defects and requirements are not correctly communicated to the original software vendors, as Unitel has persisted in retaining a barrier between the various parties involved, leading to wasted hours of testing and renegotiations with the vendor for further modifications and additional costs.

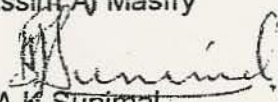
The team is convinced that proceeding with Phase II (PSTN) of the current solution would lead to delays in implementing the urgently required PSTN solution due to the following reasons:

1. Variation orders for the new services such as ADSL, ISDN, ATM etc. and the additional licenses needing Tender Board approval and possibly costing more than a new solution.
2. Similar experience of testing, defect resolution and miscommunication with vendors leading to crisis and reverting back and forth between old & new systems. This will be impossible with the PSTN Phase, as the Local Loop system is complex.
3. The team's comfort with the ability of the local vendor to deliver Omantel needs is extremely low.

In conclusion, considering all the above issues and other issues covered in our previous reports we strongly recommend that the Phase II (PSTN) of the CCBMS Project be cancelled.


Ahmed Mohd Al Nasri


Jassim Al Masfry


R A K Srinimal

Minutes of the Meeting held to Discuss Issues relating to CCBMS Project

Date : 6th January 2004
Venue: President's Office Conference Room
Time : 8:30 a.m.
Agenda: CCBMS Project Status

Attendees:

1. Eng. Mohd. Ali Al Wohaibi	Executive President (EP)
2. Dr. Amer Awadh Al Rawas	Executive Vice President (EVP)
3. Mohsin Al Raisi	GM – NS&I Unit
4. Rashid Al Balushi	Director – PMO
5. Hassan Al Zaidjali	Chairman Tech. Committee
6. Khalid Al Wohaibi	Manager Legal
7. Ahmed Al Nasri	Manager IT Projects – PMO
8. Nabila Al Zaidjali	Act. Manager – IT
9. Jassim Al Masfry	Section Head – Billing
10. Samuel Kumar	Revenue Accountant – Finance

The meeting was called by the Executive President to know the status of CCBMS Project, its future and action to be taken. EP asked the project team to give their opinion on the project.

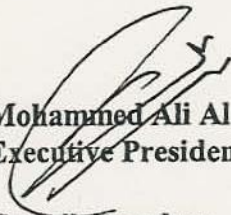
1. Ahmed informed that the project had been long delayed, The GSM phase was launched in Sept'03 and is currently being used for GSM billing. During May-June '03 a decision was made by the management not to go with the PSTN phase of the CCBMS project. After 3 GSM billing cycles things are still slow, we have not reached any reasonable solution with Unitel, no stability, the system is still facing problems and it is complex. Interfaces are slow and 5 defects are still pending resolution. Defect resolutions are always delayed and in some cases resolution dates are also not given.
2. Jassim further explained that the people working on the project are not really professional and thus the support is not up to the satisfaction. The solution is being held in place mainly due to TCS support and Omantel's own technical team who, have provided certain work around to overcome shortcomings in the system.
3. It was informed that some Unitel staff constantly interferes with Omantel staff; enquiring after the PSTN phase even though Omantel has issued a letter of cancellation of the phase. This is distracting and disturbing the concentration of Omantel staff in carrying out their duties. Jeevan also interferes with the staff.

Action :EVP's Office to draft the letter for IT's signature to be sent to Unitel CEO.

4. It was further informed that the system is still slow in the interiors, even though Omantel had provided 128K links as against the 64K as requested by Unitel. During the bill runs of April and May '03, Unitel did not carry out any pre-billing process. This resulted in one process running for 2 days without completion. Subsequently certain fine-tuning by the original vendors (CSG) and introduction of some pre-billing and post-billing processes improved the billing performance. However, Omantel Project team had informed Unitel that they are not happy with the pre-billing and post billing processes. Without TCS support Omantel would find it difficult to maintain and use CCBMS. The system can be described as worse than TIMS during the billing period.
5. EP said that Omantel couldn't say that the system is bad as it was agreed and selected by Omantel to go for this solution and Unitel would question Omantel as to why we accepted the system
6. EP requested IT, jointly with PMO to send a letter to Unitel to find a solution to enhance the existing pre-billing and post-billing processes and procedures.
Action : IT & PMO – to send a letter to Unitel on the above.
7. Ahmed informed that Omantel has a Support Contract signed with Unitel for 6 years at a cost of RO. 900,000.
8. Samuel informed that the users are having problem in answering subscriber queries, as the CSR has to navigate through numerous GUI's to find the information. This solution was not the choice of the evaluation team. It was dumped on Omantel without verifying its capabilities/complexities. The staff have got used to it now as there is no alternative, although they are not content with it.
9. EP enquired on how the project team will evaluate the project, Ahmed Nasri replied that the nature of the product is complicated. The billing performance is poor, as it takes 36 hours for billing 260,000 subscribers. PSTN is more complex, and had we proceeded with the PSTN phase initially we would have incurred huge revenue losses and considering the complexity of PSTN provisioning reverting back to TIMS would have been very difficult.
10. EP said that Omantel has a big exercise ahead and asked the Project Team whether they need more support / staff. Jassim suggested that they need more operational staff, minimum of 20 if a new system is introduced. At present, there are 6 staff working on the system and may need another 5.
11. EP said that the system has caused revenue loss, time and damaged customer relationship. Therefore, we cannot support PSTN stage and it's an additional exercise, which will require more money, hardware, time etc It is necessary to view the PSTN stage as a new project although the new vendor / system will also have its own risks.

12. EP asked the legal opinion on the issue. Khalid suggested the following :
- According to the terms of the contract, Omantel has the right to issue a Variation Order to delete PSTN part from the main contract.
 - Omantel can recover the expenses on contracts signed with other vendors ((TCS etc.) to do the work, which was mentioned in the Unitel contract but not completed by them and to compensate Unitel only for the work done by them.
13. GM – NS&I was given the task to form a team to choose a new billing system for PSTN. EP said that a shortlist for the new vendors with detailed scope of work to be prepared within 30 days of this meeting and workshops conducted by all vendors.
14. Meantime, a Variation Order detailing the areas of activities being reduced from the scope of work of Unitel billing contract with Omantel to be prepared immediately and sent to Unitel. The letter should be ready for signature by the Executive President on Monday, 12th January'04. Legal / Project Office / Finance / Procurements & Contracts with the help of GM-NS&I and Hassan should discuss this and prepare the letter.
Action: Legal/PMO/Finance/Procurements & Contracts/NS&I to work on Variation Order to be signed by Executive President to sent to Unitel by 12th January 2004.
15. On the vendors for the new system it was suggested to contact ITS, OCS and TCIL. Ahmed stated that considering time and cost factor, ITS TABS licenses (250K) can be utilized for TABS Landline solution as well as CSR's familiarity of the system. However, he stated that ITS has only one reference site in Uganda for fixed line.
16. EP advised that there are many systems which will be suitable for PSTN billing and can be considered by the team headed by GM – NS&I. He gave example of Converges and the vast majority of implementation experience of MBT (Mahindra-BT) He suggested calling all the contractors for a workshop, and then shortlisting the best one or two. This exercise should be ready by 30 days of this meeting.

Minutes approved and signed by :


Mohammed Ali Al Wohaibi
Executive President – Omantel

Cc: All attendees

Annexure 6
Letter on Savings Made on GSM project

الشركة العمانية للاتصالات (ش.م.ع.م)

Oman Telecommunications Company (S.A.O.C)

مذكرة داخلية

INTERNAL COMMUNICATION

From:	Director of Projects Management Office	من :
To:	GM Finance Unit	إلى :
Our Ref:	OMANTEL/PMO/GSM-2001 138/1259 /2003	إشارتنا :
Date:	22 / 12 / 2003	التاريخ :
Subject:	Utilized Saved Budget on Contract 2001-138	الموضوع :

After Compliments,

Please be advised that PMO will be completing the scope of the Contract 2001-138 by end of December 2003. Accordingly a saving of approximately more than \$800,000.00 has been achieved through design review and careful management. However, most of the sites that were completed have become very congested and require further upgrade since these sites were planned since 2001. Due to the urgency to respond this need, we recommend that you arrange to transfer this saved amount into the Mobile Capital Saving for development and allow us to utilize this saving to cover for the upgrade of several sites in Al Batinah, Mussandum and Buraimi.

On the other hand, we have to provide the MW network management System (NMS) extra scope in order to manage the installed repeater sites around Al Batinah region. The cost of such works will be covered by this saving as well.

Please find attached the approval from the Executive Vice President on this subject in order to facilitate such an action and accommodate these requirements in the near future. Please note that such activities are planned to be completed no later than end of Feb 2004.

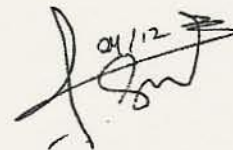
Therefore, activities are planned and the Contract 138-2001 will be completed and closed no later than 31-Dec-2003, and whatever amount saved needs to be transferred to the indicated account as mentioned above.

Your assistance and support is appreciated to finalize any formalities and kindly update us upon completion, so we may instruct Motorola to carry on the above tasks.

Thanking you and best regards,

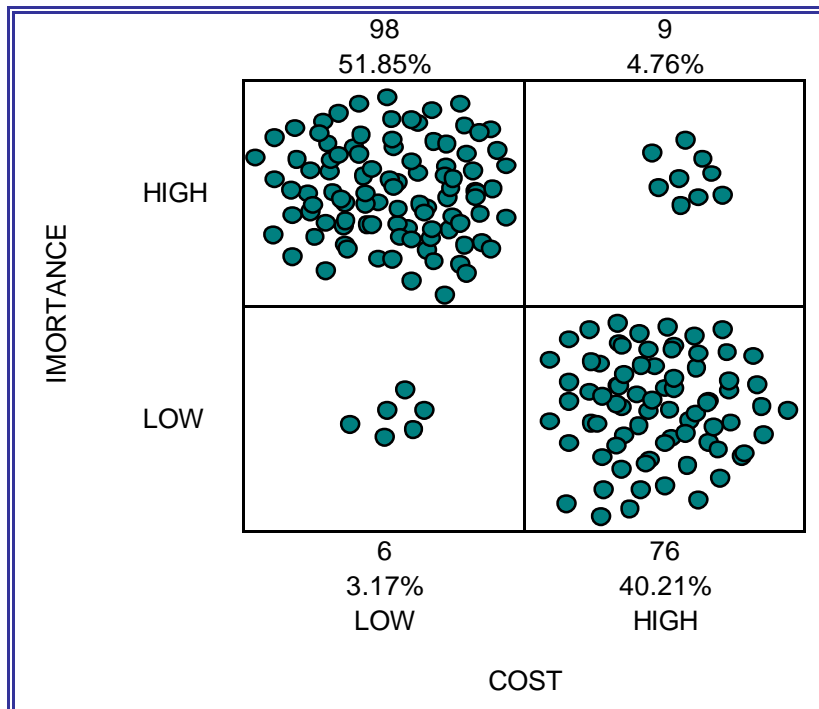
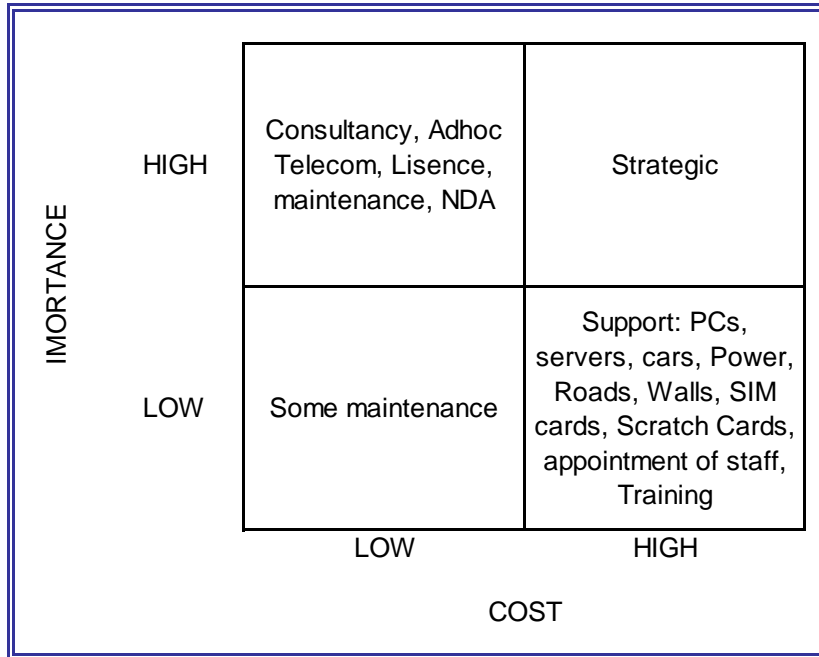


Rashid Bin Ali Al-Balushi



Annexure 5
Project Management Processes Manual

Contract distribution for 2004



Appendix-3

The t-test calculations

t-Test

To determine whether there is a significant difference between the two group means of Omantel and None Omantel Observation. It helps answer the question: Do the two groups (Omantel and None Omantel) come from the same population, and only appear different because of the chance errors, or is there some significant difference between these two groups, such that we can say that they are really from two entirely different populations?

- (1) The larger the sample, the less likely that difference is due to sampling errors or chance
- (2) The larger the difference between the two means, the less likely the difference is due to sampling errors
- (3) The smaller the variance among the participants, the less likely that the difference was created by sampling errors

The choice between the two types of t-test depends on our groups or samples. The two groups are independent, not related in any way, we choose the INDEPENDENT samples t-test

Our t-test are:
Variances of samples are similar
The observations are Independent
the Underlying distribution is Normal

Our Null Hypothesis is that there is no difference in PMO need between Omantel organization and None Omantel Organizations
Assume Alpha = 0.50

if t is within the region of rejection, then there is a significant difference in the need of PMO for Omantel as opposed to other None Omantel Organizations meaning that Need of PMO in Omantel is

t tests are just a special case of ANOVA: if you analyze the means of two groups by ANOVA, you get the same results as doing it with a t test.

The term analysis of variance is a source of confusion for newbies. In spite of its name, ANOVA is concerned with differences between means of groups, not differences between variances. □

The name analysis of variance comes from the way the procedure uses variances to decide whether the means are different. A better acronym for this model would be ANOVASMAD (analysis of variance to see if means are different)!

Results:

Q1	Accept Null Hypothesis	Level of Education is the same in both Omantel and other organizations	
		Mean	Variance
	Omantel	2.9318182	0.6696617
	Others	3.027027	0.4714715
Q2	Reject Null Hypothesis	Profession level is the same in both Omantel and other organizations	
		Mean	Variance
	Omantel	2.2954545	1.980444
	Others	1.7297297	1.0915916
Q3	Accept Null Hypothesis	Years of experience differences is not significant between Omantel and others	
		Mean	Variance
	Omantel	2.9090909	1.8054968
	Others	3.2162162	1.8408408
Q4	Reject Null Hypothesis	No of employees in the department differences is not significant between Omantel and others	
		Mean	Variance
	Omantel	2.1363636	1.422833
	Others	2.9459459	1.2747748

t-Test

Q5	Reject Null Hypothesis	Whether the company follow standard process mean differences is not significant between Omantel and others
		Mean Variance
	Omantel	1.5454545 0.4862579
	Others	1 0
Q6	Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether divided into generic phases or not
		Mean Variance
	Omantel	0.9318182 0.8091966
	Others	1 0
Q7	Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether follow a "Stage-Gate" approval process
		Mean Variance
	Omantel	0.8181818 0.9894292
	Others	1.1891892 0.4354354
Q8	Reject Null Hypothesis	There is no differences in the mean of the two sources about if their Percentage of projects following consistent PM processes
		Mean Variance
	Omantel	2.8409091 3.5787526
	Others	4.5675676 0.6411411
Q9	Accept Null Hypothesis	There is no differences in the mean of the two sources about the most important factor to stakeholders satisfactions
		Mean Variance
	Omantel	2.0681818 1.3208245
	Others	1.8378378 1.0285285
Q10	Reject Null Hypothesis	There is no differences in the mean of the both sources have consistency between business strategy and project business case
		Mean Variance
	Omantel	3.4090909 2.3403805
	Others	4.1081081 1.1546547
Q11	Accept Null Hypothesis	There is no differences in the mean of the two sources about the having the PM and team members review deliverables against business strategy
		Mean Variance
	Omantel	3.5681818 1.7394292
	Others	3.9189189 1.5765766
Q12	Accept Null Hypothesis	There is no differences in the mean of the two sources about there is always business plan for new project

t-Test

Experiment: The need for PMO with respect of Educational Background

Design: Two group educational background

Independent Variables: Omantel or Others

Dependent Variables: Educational Background (1) PDH (2) Masters (3) Bsc (4) Diploma (5) Secondary School (6) Below Secondary School

Observation	Omantel	Others
1	4	3
2	2	3
3	2	3
4	3	3
5	3	2
6	4	3
7	3	3
8	3	3
9	3	2
10	3	3
11	4	3
12	5	2
13	3	3
14	2	3
15	3	3
16	3	3
17	3	3
18	2	5
19	3	3
20	3	3
21	2	4
22	2	2
23	3	3
24	5	5
25	4	3
26	3	3
27	2	3
28	5	3
29	3	4
30	3	3
31	3	3
32	2	4
33	3	3
34	3	3
35	2	3
36	3	2
37	2	2
38	2	
39	3	
40	3	
41	3	
42	2	
43	2	
44	3	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference (STD1+STD2)/SQRT(N1+N2)
Mean	2.931818182	3.027027027	
Variance	0.669661734	0.471471471	0.894621711
Observations	44	37	
Pooled Variance	0.579347184		
Hypothesized Mean Difference	0		
df	79		
t Stat	-0.560780028		
P(T<=t) one-tail	0.288267294		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.576534588		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis Level of Education is the same in both Omantel and other organizations

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between level of education of both sources

Mean Difference (Mean2 - Mean1) **0.095208845**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 0.596894834 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -0.406477143

At Probability of 0.288 and df (79) then

One-tail t-test t obs < t critical **-0.560780028** < **1.66437141**
 Two-tail test- t obs is in between +- tc **-1.990450177** **-0.560780028** **1.990450177**

Accept Null Hypothesis	Level of Education is the same in both Omantel and other organizations
Reject Alternate	There is significant differences between level of education of both sources

t-Test

Experiment: The need for PMO with respect of Profession
Design: Two group Profession (Omantel and Others)
Independent Variables: Omantel or Others
Dependent Variables: Profession

(1) Senior/ Mid Management (2) Specialized (3) Semi Specialized (4) Office Work (5) Others

Observation	Omantel	Others
1	5	2
2	3	2
3	1	2
4	1	2
5	3	1
6	2	2
7	2	1
8	2	2
9	2	1
10	1	2
11	2	1
12	1	2
13	1	5
14	1	1
15	1	2
16	5	1
17	1	1
18	1	1
19	5	2
20	3	2
21	1	2
22	3	1
23	1	1
24	5	1
25	5	2
26	5	1
27	2	0
28	4	2
29	2	1
30	2	1
31	3	3
32	1	3
33	1	3
34	3	5
35	2	1
36	2	1
37	2	1
38	1	
39	2	
40	1	
41	2	
42	1	
43	5	
44	2	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference (STD1+STD2)/SQRT(N1+N2)
Mean	2.295454545	1.72972973	1.523370546
Variance	1.980443975	1.091591592	
Observations	44	37	
Pooled Variance	1.575397319		
Hypothesized Mean Difference	0		
df	79		
t Stat	2.020667561		
P(T<=t) one-tail	0.023351306		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.046702612		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis Profession level is the same in both Omantel and other organizations

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between profession level of both sources

Mean Difference (Mean2 - Mean1) **-0.565724816**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) -3.643950261 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) 2.512500629

At Probability of 0.023 and df (79) then

One-tail t-test t obs > t critical **2.020667561** > **1.66437141**
 Two-tail test- t obs is outside +- tc **-1.990450177** Not within **1.990450177** **2.020668**

Reject Null Hypothesis	Profession level is the same in both Omantel and other organizations
Accept Alternate Hypothesis	There is significant differences between profession level of both sources

t-Test

Experiment: The need for PMO with respect of Work Experience in Omantel
Desgin: Two group Profession (Omantel and Others)
Independent Variables: Omantel or Others
Dependent Variables: Work Experience (1) Over 15 year (2) 10-15 (3) 5-10 (4) 1-5 (5) Less than 1 year

Observation	Omantel	Others
1	3	5
2	3	5
3	4	5
4	2	5
5	4	5
6	1	3
7	4	2
8	2	5
9	4	3
10	4	4
11	3	4
12	1	2
13	4	3
14	4	4
15	1	4
16	3	4
17	3	3
18	2	1
19	3	4
20	4	4
21	4	3
22	4	2
23	3	1
24	4	2
25	1	3
26	2	2
27	1	4
28	2	3
29	5	2
30	4	2
31	4	5
32	2	1
33	1	4
34	5	5
35	1	1
36	1	3
37	2	1
38	5	
39	3	
40	4	
41	4	
42	1	
43	5	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	2.909090909	3.216216216	(STD1+STD2)/SQRT(N1+N2)
Variance	1.805496829	1.840840841	1.49444065
Observations	44	37	
Pooled Variance	1.821602961		
Hypothesized Mean Difference	0		
df	79		
t Stat	-1.020172078		
P(T<=t) one-tail	0.155380445		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.310760889		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis Years of experience differences is not significant between Omantel and others

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between years of experience of both sources

Mean Difference (Mean2 - Mean1) **0.307125307**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 1.831711931 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -1.217461316

At Probability of 0.155 and df (79) then

One-tail t-test t obs < t critical **-1.020172078** < **1.66437141**
 Two-tail test- t obs is outside +- tc **-1.990450177** **-1.020172078** **1.990450177**

Accept Null Hypothesis	Years of experience differences is not significant between Omantel and others
Reject Alternate Hypothesis	There is significant differences between years of experience of both sources

t-Test

Experiment: The need for PMO with respect of Number of employees in the department
Design: Two group Number of employees within the department (Omantel and Others)
Independent Variables: Omantel or Others
Dependent Variables: Number of Employees (1) More than 30 (2) 20-30 (3) 10-20 (4) Below 10

Observation	Omantel	Others
1	2	4
2	3	4
3	1	4
4	1	4
5	1	4
6	1	3
7	3	1
8	2	3
9	1	1
10	1	2
11	4	2
12	1	4
13	1	2
14	3	2
15	1	2
16	1	2
17	1	4
18	3	2
19	1	4
20	2	2
21	1	1
22	2	1
23	3	4
24	4	4
25	3	4
26	4	2
27	4	3
28	3	4
29	4	1
30	3	3
31	3	4
32	3	3
33	1	4
34	1	4
35	1	4
36	1	3
37	1	4
38	2	
39	4	
40	2	
41	1	
42	4	
43	4	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	2.136363636	2.945945946	(STD1+STD2)/SQRT(N1+N2)
Variance	1.422832981	1.274774775	1.318276656
Observations	44	37	
Pooled Variance	1.355363419		
Hypothesized Mean Difference	0		
df	79		
t Stat	-3.117581536		
P(T<=t) one-tail	0.001271717		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.002543435		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis No of employees in the department differences is not significant between Omantel and others

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between No of employees in the department between two sources

Mean Difference (Mean2 - Mean1) **0.80958231**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 4.919417271 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -3.300252652

At Probability of 0.00127 and df (79) then

One-tail t-test t obs < t critical **-3.117581536** < **1.66437141**
 Two-tail test- t obs is outside +- tc **-3.117581536** **-1.990450177** Not within **1.99045**

Reject Null Hypothesis	No of employees in the department differences is not significant between Omantel and others
Accept Alternate Hypothesis	There is significant differences between No of employees in the department between two sources

t-Test

Experiment: The need for PMO with respect if the Company follow s standard process or not
Desgin: Tw o group - If the Company follow a standard process or not
Independent Variables: Omantel or Others
Dependent Variables: Company follow s standard Process (1) Yes (2) No (3) I don't know

Observation	Omantel	Others
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	2	1
7	2	1
8	2	1
9	2	1
10	1	1
11	1	1
12	2	1
13	2	1
14	1	1
15	3	1
16	1	1
17	1	1
18	3	1
19	2	1
20	2	1
21	1	1
22	2	1
23	2	1
24	3	1
25	1	1
26	1	1
27	3	1
28	1	1
29	3	1
30	1	1
31	1	1
32	1	1
33	1	1
34	1	1
35	1	1
36	1	1
37	1	1
38	2	
39	2	
40	1	
41	1	
42	2	
43	2	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	1.545454545	1	(STD1+STD2)/SQRT(N1+N2)
Variance	0.486257928	0	0.697321969
Observations	44	37	
Pooled Variance	0.264672037		
Hypothesized Mean Difference	0		
df	79		
t Stat	4.753234343		
P(T<=t) one-tail	4.41754E-06		
t Critical one-tail	1.66437141		
P(T<=t) tw o-tail	8.83509E-06		
t Critical tw o-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis Whether the company follow standard process mean differences is not significant betw een Omantel and others

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences betw een the means of tw o companies that they follow standard process

Mean Difference (Mean2 - Mean1) **-0.545454545**
 Confidence Interval (95%)
 Low er End (MD-(t x SED)) -3.859989275 it includes ZERO, then the difference betw een tw o means is not Significant
 Upper End (MD+(t x SED)) 2.769080184

At Probability of 0.00000442 and df (79) then

One-tail t-test t obs < t critical **4.753234343** > **1.66437141**
 Tw o-tail test- t obs is outside +- tc **-1.990450177** Not w ithin **1.990450177** **4.7532343**

Reject Null Hypothesis	Whether the company follow standard process mean differences is not significant between Omantel and others			
Accept Alternate Hypothesis	There is significant differences between the means of two companies that they follow standard process			

t-Test

Experiment: The need for PMO with respect if the PM process is divided into phases
Design: Two groups - If the Company PM divided into generic phases
Independent Variables: Omantel or Others
Dependent Variables: Company PM divided into generic phases (1) Yes (2) No (3) I don't know

Observation	Omantel	Others
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	0	1
7	0	1
8	2	1
9	2	1
10	1	1
11	1	1
12	0	1
13	2	1
14	1	1
15	0	1
16	1	1
17	1	1
18	0	1
19	0	1
20	0	1
21	1	1
22	0	1
23	0	1
24	3	1
25	3	1
26	1	1
27	0	1
28	1	1
29	3	1
30	1	1
31	1	1
32	1	1
33	1	1
34	1	1
35	2	1
36	1	1
37	1	1
38	0	
39	0	
40	3	
41	0	
42	0	
43	0	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	0.931818182	1	(STD1+STD2)/SQRT(N1+N2)
Variance	0.809196617	0	0.899553566
Observations	44	37	
Pooled Variance	0.440448792		
Hypothesized Mean Difference	0		
df	79		
t Stat	-0.460580511		
P(T<=t) one-tail	0.323182477		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.646364955		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the two sources about if are using PM process whether divided into generic phases or not

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about PM process divided into generic phases

Mean Difference (Mean2 - Mean1) **0.068181818**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 0.482498659 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -0.346135023

At Probability of 0.00000442 and df (79) then

One-tail t-test t obs < t critical **-0.460580511** < **1.66437141**
 Two-tail test- t obs is outside +/- tc **-1.990450177** **-0.460580511** **1.990450177**

Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether divided into generic phases or not
Reject Alternate Hypothesis	There is significant differences between the means of both sources about PM process divided into generic phases

t-Test

Experiment: The need for PMO with respect if the PM process follow a "Stage-gate" approval Process
Design: Two groups - If the Company PM process follow a "Stage-gate" approval process
Independent Variables: Omantel or Others
Dependent Variables: Company PM process follow "Stage-gate" (1) Yes (2) No (3) I don't know

Observation	Omantel	Others
1	1	1
2	3	1
3	1	1
4	1	1
5	1	1
6	0	1
7	0	1
8	0	1
9	0	1
10	1	1
11	1	1
12	0	1
13	0	1
14	2	1
15	0	1
16	2	1
17	1	3
18	0	3
19	0	1
20	0	1
21	3	1
22	0	0
23	0	1
24	0	1
25	3	3
26	3	1
27	0	3
28	1	1
29	0	1
30	1	1
31	1	1
32	2	1
33	1	1
34	1	1
35	0	1
36	1	1
37	3	1
38	0	
39	0	
40	0	
41	1	
42	0	
43	0	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference (STD1+STD2)/SQRT(N1+N2)
Mean	0.818181818	1.189189189	
Variance	0.989429175	0.435435435	1.068020025
Observations	44	37	
Pooled Variance	0.736976332		
Hypothesized Mean Difference	0		
df	79		
t Stat	-1.937494412		
P(T<=t) one-tail	0.028129414		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.056258828		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the two sources about if are using PM process whether follow a "Stage-Gate" approval process

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about PM processes follow a "Stage-gate"

Mean Difference (Mean2 - Mean1) **0.371007371**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 2.440290202 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -1.69827546

At Probability of 0.028 and df (79) then

One-tail t-test t obs < t critical **-1.937494412** < **1.66437141**
 Two-tail test- t obs is outside +/- tc **-1.990450177** **-1.937494412** **1.990450177**

Accept Null Hypothesis	There is no differences in the mean of the two sources about if are using PM process whether follow a "Stage-Gate" approval process		
Reject Alternate Hypothesis	There is significant differences between the means of both sources about PM processes follow a "Stage-gate"		

t-Test

Experiment: The need for PMO with respect of the percentage of projects that follow a consistent PM processes
Design: Two group - Percentage of Projects using consistent PM Processes
Independent Variables: Omantel or Others
Dependent Variables: Percentage of Projects using consistent PM Processes (1) 0-20% (2) 20-40% (3) 40-60% (4) 60-80 % (5) 80-100% (6) I don't know

Observation	Omantel	Others
1	4	5
2	4	5
3	5	5
4	2	5
5	4	5
6	4	4
7	1	5
8	2	5
9	4	5
10	0	6
11	2	5
12	1	3
13	1	4
14	2	3
15	3	5
16	1	5
17	5	4
18	6	4
19	4	4
20	6	5
21	2	5
22	2	5
23	6	4
24	6	6
25	3	4
26	6	5
27	6	6
28	3	5
29	0	4
30	1	4
31	1	4
32	1	5
33	3	3
34	3	3
35	1	5
36	0	4
37	4	5
38	2	
39	2	
40	6	
41	1	
42	1	
43	2	
44	2	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	2.840909091	4.567567568	(STD1+STD2)/SQRT(N1+N2)
Variance	3.578752643	0.641141141	1.980727239
Observations	44	37	
Pooled Variance	2.240094237		
Hypothesized Mean Difference	0		
df	79		
t Stat	-5.171993752		
P(T<=t) one-tail	8.5477E-07		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	1.70954E-06		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the two sources about if their Percentage of projects following consistent PM processes
t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about the percentage of projects following consistent PM processes

Mean Difference (Mean2 - Mean1) **1.726658477**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 11.97096738 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -8.517650428

At Probability of 0.000000085 and df (79) then
 One-tail t-test t obs < t critical **-5.171993752** < **1.66437141**
 Two-tail test- t obs is outside +- tc **-5.171993752** **-1.990450177** Not within **1.99045**

Reject Null Hypothesis	There is no differences in the mean of the two sources about if their Percentage of projects following consistent PM processes
Accept Alternate Hypothesis	There is significant differences between the means of both sources about the percentage of projects following consistent PM processes

t-Test

Experiment: The need for PMO with the most important to achieve stakeholders satisfactions (time-cost-quality)
Desgin: Two group - Most important item to achieve stakeholders (Time-Cost-Quality)
Independent Variables: Omantel or Others
Dependent Variables: The most important factor to achieve stakeholder satisfactions (1) Time (2) Cost (3) Quality (4) I don't know

Observation	Omantel	Others
1	3	3
2	1	3
3	1	3
4	3	3
5	4	3
6	4	1
7	0	1
8	1	3
9	2	1
10	3	2
11	0	1
12	1	1
13	2	1
14	1	1
15	3	2
16	2	1
17	3	0
18	4	2
19	3	1
20	3	1
21	1	3
22	1	2
23	3	3
24	3	0
25	0	0
26	3	3
27	1	3
28	2	2
29	3	1
30	1	2
31	1	3
32	1	2
33	1	3
34	3	3
35	1	1
36	3	2
37	3	1
38	3	
39	1	
40	3	
41	2	
42	3	
43	3	
44	1	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	2.068181818	1.837837838	(STD1+STD2)/SQRT (N1+N2)
Variance	1.320824524	1.028528529	1.261956185
Observations	44	37	
Pooled Variance	1.187626349		
Hypothesized Mean Difference	0		
df	79		
t Stat	0.947592568		
P(T<=t) one-tail	0.173113274		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.346226549		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the two sources about the most important factor to stakeholders satisfactions

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about the most important factor for stakeholders satisfactions

 Mean Difference (Mean2 - Mean1) **-0.23034398**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) -1.426164283 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) 0.965476322

 At Probability of 0.173 and df (79) then
 One-tail t-test t obs < t critical **0.947592568** < 1.66437141
 Two-tail test- t obs is outside +- tc **-1.990450177** **0.947592568** 1.990450177

Accept Null Hypothesis	There is no differences in the mean of the two sources about the most important factor to stakeholders satisfactions
Reject Alternate Hypothesis	There is significant differences between the means of both sources about the most important factor for stakeholders satisfactions

t-Test

Experiment: The need for PMO with relation to the consistency between business strategy and project business case

Design: Two group - if business Strategy is related to Project Business Case

Independent Variables: Omantel or Others

Dependent Variables: If business Strategy is related to Project Business Case (1) Strongly Disagree (2) Disagree (3) Uncertain (4) Agree (5) Strongly Agree

Observation	Omantel	Others
1	0	5
2	4	5
3	4	5
4	4	5
5	4	5
6	3	4
7	5	4
8	3	4
9	4	5
10	5	4
11	4	5
12	2	2
13	5	4
14	2	4
15	4	4
16	2	5
17	4	4
18	4	4
19	4	2
20	0	4
21	2	4
22	4	5
23	5	4
24	3	4
25	0	4
26	3	4
27	3	4
28	4	5
29	5	5
30	5	4
31	3	4
32	5	5
33	4	5
34	5	0
35	4	4
36	1	5
37	3	2
38	4	
39	4	
40	0	
41	1	
42	5	
43	5	
44	5	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	3.409090909	4.108108108	(STD1+STD2)/SQRT(N1+N2)
Variance	2.34038055	1.154654655	1.649224522
Observations	44	37	
Pooled Variance	1.800049762		
Hypothesized Mean Difference	0		
df	79		
t Stat	-2.335771186		
P(T<=t) one-tail	0.011020256		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.022040512		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the both sources have consistency between business strategy and project business case

t obs ----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about the having consistency between business strategy and business case

Mean Difference (Mean2 - Mean1) **0.699017199**
 Confidence Interval (95%)
 Lower End (MD-(t x SED)) 4.551228318 it includes ZERO, then the difference between two means is not Significant
 Upper End (MD+(t x SED)) -3.15319392

At Probability of 0.011 and df (79) then

One-tail t-test t obs < t critical **-2.335771186** < **1.66437141**
 Two-tail test- t obs is outside +- tc **-2.335771186** **-1.990450177** Not within **1.99045**

Reject Null Hypothesis	There is no differences in the mean of the both sources have consistency between business strategy and project business case
Accept Alternate Hypothesis	There is significant differences between the means of both sources about the having consistency between business strategy and business case

t-Test

Experiment: The need for PMO with relation to the review of deliverables between project manager and team members against business strategy

Design: Two group - if Project Manager and Team Members meet to review overall business Strategy

Independent Variables: Omantel or Others

Dependent Variables: If Project manager and team members meet to review deliverables against Business Strategy (1) Strongly Disagree (2) Disagree (3) Uncertain (4) Agree (5) Strongly Agree

Observation	Omantel	Others
1	5	5
2	4	5
3	5	5
4	5	5
5	4	5
6	4	4
7	3	5
8	4	4
9	5	5
10	5	4
11	4	4
12	2	2
13	5	4
14	2	2
15	2	4
16	2	5
17	4	5
18	0	4
19	4	3
20	2	3
21	3	4
22	4	4
23	4	4
24	3	0
25	4	4
26	4	4
27	3	4
28	4	5
29	5	4
30	4	4
31	4	4
32	5	5
33	4	5
34	1	0
35	2	3
36	1	5
37	4	3
38	4	
39	3	
40	4	
41	1	
42	5	
43	5	
44	5	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	3.568181818	3.918918919	(STD1+STD2)/SQRT(N1+N2)
Variance	1.739429175	1.576576577	1.458387319
Observations	44	37	
Pooled Variance	1.665217865		
Hypothesized Mean Difference	0		
df	79		
t Stat	-1.218514967		
P(T<=t) one-tail	0.11332736		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.22665472		
t Critical two-tail	1.990450177		

tc----- t obs -----tc Null Hypothesis There is no differences in the mean of the two sources about the having the PM and team members review deliverables against business strategy

t obs----- tc-----tc--- **t obs** Alternate Hypo There is significant differences between the means of both sources about having the PM and team members review deliverables against business strategy

Mean Difference (Mean2 - Mean1)	0.350737101
Confidence Interval (95%)	
Lower End (MD-(t x SED))	2.127803876 it includes ZERO, then the difference between two means is not Significant
Upper End (MD+(t x SED))	-1.426329675

At Probability of 0.113 and df (79) then

One-tail t-test t obs < t critical	-1.218514967	<	1.66437141
Two-tail test- t obs is outside +- tc	-1.990450177	-1.990450177	1.990450177

Accept Null Hypothesis	There is no differences in the mean of the two sources about the having the PM and team members review deliverables against business strategy
Reject Alternate Hypothesis	There is significant differences between the means of both sources about having the PM and team members review deliverables against business strategy

t-Test

Experiment: The need for PMO with related to there is always clear business case for new project
Desgin: Two group - if there is always business case for new project
Independent Variables: Omantel or Others
Dependent Variables: If there is always business case for developing new project (1) Strongly Disagree (2) Disagree (3) Uncertain (4) Agree (5) Strongly Agree

Observation	Omantel	Others
1	5	5
2	3	5
3	5	5
4	5	5
5	3	5
6	4	4
7	2	4
8	3	4
9	4	5
10	1	4
11	4	5
12	2	2
13	5	4
14	2	4
15	3	4
16	2	5
17	3	3
18	4	3
19	5	4
20	2	4
21	5	4
22	5	5
23	4	4
24	3	0
25	4	0
26	2	2
27	3	4
28	2	5
29	5	5
30	5	3
31	4	3
32	2	5
33	2	5
34	3	0
35	2	4
36	0	5
37	3	1
38	3	
39	2	
40	1	
41	1	
42	5	
43	4	
44	5	

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2	Standard Error of Difference
Mean	3.227272727	3.756756757	(STD1+STD2)/SQRT (N1+N2)
Variance	1.900634249	2.244744745	1.545106836
Observations	44	37	
Pooled Variance	2.057444095		
Hypothesized Mean Difference	0		
df	79		
t Stat	-1.654906777		
P(T<=t) one-tail	0.050955609		
t Critical one-tail	1.66437141		
P(T<=t) two-tail	0.101911218		
t Critical two-tail	1.990450177		

tc----- **t obs** -----tc Null Hypothesis There is no differences in the mean of the two sources about there is always business plan for new project

t obs----- tc-----tc-- **t obs** Alternate Hypo There is significant differences between the means of both sources about about there is always business plan for new projects

Mean Difference (Mean2 - Mean1) **0.529484029**

Confidence Interval (95%)

Lower End (MD-(t x SED)) 3.086491804 it includes ZERO, then the difference between two means is not Significant

Upper End (MD+(t x SED)) -2.027523745

At Probability of 0.051 and df (79) then

One-tail t-test t obs < t critical **-1.654906777** < **1.66437141**

Two-tail test- t obs is outside +- tc **-1.990450177** **-1.654906777** **1.990450177**

Accept Null Hypothesis	There is no differences in the mean of the two sources about there is always business plan for new project
Reject Alternate Hypothesis	There is significant differences between the means of both sources about about there is always business plan for new projects

Appendix-4

Interviews-1 & interviews-2

1

Interviews & Gathered Data Report

Interview with:	Manager, P&C	Date:	
Subject:	General information about Development of projects processes, Problems, & TCD.	Contact:	
Unit:			

Objectives:

To initiate, and look after all necessary Tenders Documents, Studies, and Tenders Processes, Procedure and contract documents and award of contracts/agreements. Ensure that the Appraisal Report is approved by the Strategic Planning committee and within the fiscal budget. To Verify / certify of all payments to consultants, contractors, suppliers and service providers.

Responsibilities:

Main Responsibilities:

1. Preparation of tender documents
2. Preparation of Bids.
3. Evaluation of offers.
4. Preparation of contract.
5. Preparation of variation order & contracts from direct purchase.
6. Renewal of maintenance contracts.
7. Provide information to other departments/units.
8. Advise on status of contracts signed.
9. Archival of document.
10. Annual audit.
11. Translation.
12. Funds Allocation.

Other Responsibilities:

1. Review and comment on document forwarded from president office.
2. Attend meetings with contractors, end-user to resolve contractual issues.
3. Study and recommend solutions on contractual problems.
4. Review monthly report/project progress and comment based on contract.
5. Participate in committees to deal with other ministries, and telecom organizations.
6. Advise end user departments in preparing of PAC, FAC, Completion certificate, Payment certificate, etc.
7. Study and prepare the complete document including scope of works for non-routine subjects.
8. Preparation of document for ministry.

Types of projects:

There are different types of projects: Enhancement & Expansion, New Services, Disasters Recovery, Purchasing, Maintenance, Internet, Fix, GSM, Access network, in addition to many Variation orders projects.

Types of tenders:

There are four types of Tenders:

1. Direct quote: Enquiry prepared and sent to President for signature, then sent to tenderer.
2. Restricted quote: Enquiry prepared and sent to President for signature, then sent to

Interviews & Gathered Data Report

- tenderers.
3. Open Tender-OMANTEL, Tender noticed prepared and sent to Marketing for announcement.
 4. Open/Restricted-Tender Board: Prepare letter to president for signature and send the draft tender document to tender board for clearance, Value greater than RO 250,000.

Current Procedures for tendering and contracting projects:

The duration from tender request to issuing LOA ranges from 6 to 12 months and more. The procedure for tendering is as following:

1. Manager TCD transfer the end user request for (New, Expansion, VO...) project to tenders or contracts section to review and ensure that meets the requirements to float.
2. Concerned Engineers review, ensure the requirements and transfer to head of Tenders/Contracts section, else back to end-user department for clarification.
3. Head of section reviews and specifies the type of tenders (Open, restricted direct quote, or OMANTEL/tender board).
4. Request for Fund Identification sends to Financial Department, at the same time the engineers prepare the tender documents (BOQ, and SOF).
5. Send draft tender document to end-user for comments, then incorporate the comments.
6. Send draft of the incorporated document to finance for clearance then incorporate the comments.
7. Send to legal department for clearance.
8. Direct Quote / restricted quotes: prepare enquiry, sign of E. President, send to tenderer/s; Open-Tender OMANTEL tender notice to Marketing for announcement; Open/Restricted Tender Board, letter to tender board signed by president, draft tender document to tender board for clearance, incorporate TB modification, copies of Tender documents, tender floating.
9. Clarifications to queries and site visit.
10. Submission of tenders.
11. Opening tenders.
12. MTC receives the tenders.
13. Request to end-user to nominate evaluators.
14. Received list of evaluators.
15. Evaluations of tenders, if any clarification required then:
 - 34.a Requests President/Tender Committee for approval.
 - 34.b Receives approval.
 - 34.c Send queries to tenderers.
 - 34.d Receives clarifications.
 - 34.e Tender committee opens clarifications & sends to evaluation.
16. Submission of evaluation report to Tender committee.
17. Tender committee reviews, discusses and issues minutes.
18. HEM approves Tender committee minutes, received by TCD.
19. If Clarification/ negotiation required then:
 - 34.a Send queries to contractor.
 - 34.b Receive clarifications & discuss with end user.
20. Request for fund allocation, prepare draft letter of acceptance.
21. Send to FD for document financial clearance.
22. Send to LD for document legal clearance.
23. President Signs the LOA.
24. Send LOA to contractor, & concerned depts.
25. Request End-User for details SOW and BOQ.
26. Receiving SOW and BOQ.
27. Request for fund allocation, prepare draft contract.
28. Send Draft contract to end-user for comments, and incorporate these comments.
29. Send to FD for document financial clearance.
30. Send to LD for document legal clearance.
31. Send to contractor for comments (if there are discussion/comment back to 29).

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32. Preparing final Contract Document.
33. Obtaining Contractor signature.
34. OMANTEL signature: president signs the contract / send Covering Letter to president to sign.
 - 34.a Receive signed covering letter & send Contract to president for witnessing.
 - 34.b Send to HEM for signing.
35. TC Manager initials all pages of contact document.
36. Allocate a contract number; obtain financial reference from finance dept.
37. Distribute one original to contractor, one original to FD, one original to LD, and copies to all concerned departments.

Flow Chart:

The presentation of the above existing practice, see attachments.

Tender & Contract Dept. Organization Breakdown Structure:

See attachments.

Problems:

There are many problems, facing the execution of any project, that lead to disappoint customers:

1. Miss-communication.
2. ABC not available.
3. Unclear Scope of Work.
4. Unclear Responsibility.
5. Missing of Proper Consultant to specify the Specification of project.
6. No coordination between units.
7. No periodic project Status report to be submitted to "Tenders & Contract" and Finance departments.
8. No accurate demand forecast....
9. The scarcity of office space and less number of staff to meet increasing demands develops acute pressure on the existing staff. It has become extremely difficult to arrange evaluations, as there are only two small evaluations' rooms to accommodate offers and evaluators.

Recommendations:

1. User department shall be aware be aware of the fact that procurement through open tender takes 6-8 months.
2. User department shall have complete statistics on sales targets and supply positions and shall initiate the new procurement in advance.
3. Technical specification, scope of works, quantity requirements and denominations shall be prepared and kept ready for each and every product and needs to be updated at the time of tender floating.
4. If the user department follows all the procedures (budget cost, executive approval, planning committee approvals, clear specifications, and bill of quantities etc...) before forwarding the document to Tenders and Contracts department, it will reduce the processing time.

Submitted Documents:

1. Report on current Processes and Procedures.
2. Tender & Contract Department Organization Breakdown Structure.
3. Monthly Activities Report, including list of on going project 2000 to 2002.
4. Sample of documented problems including: letters from TCD to E. President, and other

Interviews & Gathered Data Report

- departments, evaluator nominating letter, meeting invitation with agenda, specifications, minutes of meetings...
5. OMANTEL (proposed) Commercial Procedures for tendering, evaluation, registration, and bidding, including templates, reports...

Interviews & Gathered Data Report

Interview with:	<i>Manager, Services</i>	Date:	
Subject:	General information about Development of projects processes, Problems	Contact:	
Unit:		Email:	

Objectives:

To provide Civil & Electromechanical services to all Company's Units & Departments, it includes: Sites Access, HVAC, Security & Safety System, and all Civil Work (small project: Design & Construction).

Responsibilities:

1. To specifying overall requirements of civil & electromechanical works and power plant through coordination with all concern departments.
2. Planning, Designing and preparation of specifications for civil & electromechanical works and power plant projects.
3. Carrying out quantity survey for setting project specifications.
4. Following up implementation of projects and ensuring their adherence to implementation schedule and confirm the specifications.
5. Maintains and operations of electromechanical systems and power plant equipments.

Types of projects:

1. GSM Projects.
2. Fix Communication Projects.
3. Costumer Service Counter.

Current Procedure for Land/Site Acquisition:

Inception:

1. Request for Suitable Space.
2. Surveying various locations to select the best.
3. Collecting the requirement and needs from the end user.

Planning stage:

1. Develop scheme design and site visit
 - 1.1 Preparing cost estimation
 - 1.2 Consult with the local authorities
 - 1.3 Preparing application for planning permission
 - 1.4 Get approval to scheme design & budget
2. Detail design
 - 2.1 Soil Investigation
 - 2.2 Preparing location plan & site layout
 - 2.3 Preparing substructure drawings
 - 2.4 Preparing superstructure drawings
 - 2.5 Preparing Electro-mechanical drawings
 - 2.6 Confirm compliance with building regulations
 - 2.7 Preparing Production information
3. Tendering Stage

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- 3.1 Preparing BOQ
- 3.2 Preparing tender document
- 3.3 Floating the tender
- 3.4 Evaluate the bids
- 3.5 Submit the evaluation report to Technical. Comm.
- 3.6 Submit the evaluation report to Tender Comm.
- 3.7 Submit the evaluation report to Board of director
- 3.8 Get some clarification from the bidders
- 3.9 Getting the approval of appointing the contractor
- 3.10 Send the letter of Acceptance (to commence the work)
- 3.11 Prepare the contract document
- 3.12 Singe the contract

Project Stage:

1. Construction work
 - 1.1 Mobilization
 - 1.2 Substructure work
 - 1.3 Superstructure work
 - 1.4 Electromechanical work
 - 1.5 Extension of commercial power
2. Commissioning
3. Inspection
4. Acceptance and handling over

Issue the PAC

Maintenance period

Final inspection

Issue the FAC

Feedback

Flow Chart:

The presentation of the above existing practice, see attachments.

Support Service Unit Organization Breakdown Structure:

See attachments.

Problems:

1. Lack of human resource.
2. Lack of information.
3. Coordination with end user before & during the project, Miss-communication.
4. Delay in respond to the clarification.
5. Making Decision (should be distrusted), Unclear Responsibility.

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6. Missing of Proper Consultant to specify the Specification of project.
7. No coordination between units.
8. The long routine procedure of local authority.
9. No periodic project Status report.

Recommendations:

1. All Concerned Units are requested to cooperate and work with full team spirit.
2. Periodical meeting b/w project team member to review the progress of work, and decision to recover any delay.

Submitted Documents:

1. Report on current Processes and Procedures.
2. List of teams, team leader names, and team member names.
3. List of on going project.
4. Answers of Some Questions.

Interviews & Gathered Data Report

Interview with:	GM Finance	Date:	
Subject:	General information about Development of projects processes, Problems, & MC Unit.	Contact: Fax:	
Unit:		Email:	

Objectives:

Similar to any financial unit objectives.
Establish and implement the internal Finance Personnel & Administration Policies and Procedures for OMANTEL within the framework of Sultanate of Oman financial laws, regulations, policies and procedures.
Establish and manage the Financial Accounting System in respect of OMANTEL operations as well as projects covering.

Responsibilities:

1. Co-ordinate the five-year corporate plan for OMANTEL.
2. Preparation of annual capital budget.
3. Preparation the annual cash flow and capitalization forecast.
4. Review feasibility study / appraisal report, on financial ground.
5. Review and amend (if need) draft tender & contract documents.
6. Preparation letters of credits as per contracts.
7. Preparation project allocation and commitment reports based on the Tender Dept.'s allocation request and signed contracts.
8. Make advance & progressive Payments for projects, based on certificate issued by operating units.
9. Transfer completed projects or part thereof to fixed assets, based on the "as built values details provided along with IAC/PAC/FAC.

Coordinate with:

Internally within OMANTEL:

1. Manager Strategic Planning,
2. Manager Tenders & Contracts,
3. Manager Civil Engineering & Power,
4. Manager Fixed Transmission,
5. Manager Fixed Planning & Project,
6. Manager Installation & Maintenance,
7. Manager GIS & Network Planning,
8. Manager Internet Services,

Externally:

1. Telecommunications Equipment and Services suppliers such as
 - 1.a Ericsson,
 - 1.b Motorola,
 - 1.c Siemens etc,
 - 1.d Other services providers/ sub contractors
2. A number of house owners (to the tune of 100s) for building site acquisition.
3. Banks.
4. Ministries

Interviews & Gathered Data Report

Finance Unit Roles, in Project lifecycle:

1. Review and comments on the feasibility study/appraisal report
2. Review and amend on the draft tender & contract document, LOA, and Contracts.
3. Allocation and commitments of funds.
4. Prepare L/C as per contract.
5. Make advance & progressive Payments for projects, based on certificate issued by operating units.
6. Transfer completed projects or part thereof to fixed assets, based on the "as built values details provided along with IAC/PAC/FAC.

Finance Unit Organization Breakdown Structure:

See attachments.

Problems:

The cause of delays of contracts execution are:

1. Sites acquisition of bare land/ building sites.
2. Miss-communication.
3. Incomplete feasibility.
4. Scope of works.
5. Resources.

Submitted Documents:

1. Project Management Involvement of Finance Unit.
2. Finance Authority Manual (not submitted).

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Interviews & Gathered Data Report

Interview with:	<i>Sr. Engineer, Fixed Unit</i>	Date:	
Subject:	General information about Development of projects processes, & Problems.	Contact	
Unit/Dept:	<i>Fixed Planning & Projects Dept.</i>		

Objectives:

To comprehensively accomplish and establish complete aspects of planning an implementation process for all identified projects of fixed communication systems involving Transmission and Switching Networks.

Responsibilities:

1. Design of Switching and Transmission Plans as per DCP Plan & Traffic.
2. Preparation of Appraisal Report & Feasibility Study.
3. Preparation of scope of Work.
4. Preparation of Technical Specifications.
5. Preparation of BOQ.
6. Review of complete tender Documents.
7. Evaluate and prepare Evaluation reports for Bids.
8. Verify/certify the progress of works.
9. Inspection of Materials.
10. Checking and approval of part of Invoices.
11. Approval of test procedures.
12. Approval of test results and issuing IAC/PAC.
13. Produce and maintain of all outside plant drawings and records.
14. Produce of all technical drawings required within OMANTEL
15. Update and maintain OMANTEL infrastructure records.

Types of projects:

There are three types of projects: Transmission, Switching, and Satellite Projects

Coordinate with:

Internally within OMANTEL:

1. Manager Strategic Planning,
2. Manager Tenders & Contracts,
3. Manager Civil Engineering & Power,
4. Manager GSM,
5. Manager Installation & Maintenance,
6. Manager GIS & Network Planning,
7. Manager Internet Services,

Externally:

1. Telecommunications Equipment and Services suppliers such as
 - 1.0 Ericsson,
 - 1.1 Motorola,

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- 1.2 Siemens
- 1.3 Al-Catel etc.,
- 1.4 Other services providers/ sub contractors

2. Ministry of Housing Electricity & Water for bare land sites acquisitions.
3. A number of house owners (to the tune of 100s) for building site acquisition.
4. Municipalities' officials for site approval.
5. Ministry of Defense.
6. Royal Oman Police.
7. Helicopter Services Suppliers.

Current Procedures for Executing Fixed Communications Projects:

1. Strategic Planning in coordination with development council (government) Prepares Master Plan.
2. Survey works are conducted by FP&P based on master Plan Designs.
3. Budget allocations are obtained in the 5 years Plans.
4. Appraisal Report (Technical –FCU P&P, Power Responsibility- GIS), Financial Feasibility (Corporate Planning).
5. Approval from tender/Strategic Planning Committee.
6. Tender preparation including technical specifications (Technical – FPP/Commercial T&C Dept.).
7. Float tender (T&C) through the Tender Board.
8. Clarification during tender floating.
9. Evaluation of Contractors' offers (FPP/T&C and Preparation of evaluation report).
10. Approval of evaluation report by technical committee.
11. Approval of evaluation report by tender committee.
12. Approval of tender committee recommendation by the tender board.
13. Award of contract and issue of LOA.
14. Contract negotiation.
15. Preparation of contract including the general part and the statement of works.
16. Finalization of final scope of work.
17. Contract signature.
18. Implementation (FPP – supervision of Installation, testing & Commissioning).
19. Issuance of Provisional Acceptance Certificate PAC.
20. Clearance of minor deficiencies by contractor and completion of 12-month warranty period.
21. Reconciliation and Closing the contract with the issue of FAC.

Procedure Flow Chart:

The presentation of the above existing practice, see attachments.

Fixed Communications Unit Organization Breakdown Structure:

See attachments.

Problems:

There are many problems, facing the execution of any project, lead to disappoint customers:

1. **Delay In the approval process:** it is very difficult to estimate the time period involved in

Interviews & Gathered Data Report

the approval of projects due to different departments involved in the approval process. Therefore, overall project implementation schedule is very difficult to control. Furthermore, small project to address urgent needs or unexpected demand follow the same approval and contract procedures as that of big projects.

2. Delays in official communication flow.
3. Delays in addressing the shortcomings that are inter-related and interwoven within and among the depts.
4. Lack of focused technical and administration guidance to critical problems and solutions.
5. Overlapping responsibilities.
6. Lack of responsibilities.

Recommendations:

1. All staffs in the dept. should be provided with the latest Computer Hardware software as planning to improve their productivity.
2. A provision for a technical library is a must with all the latest addition as reasonable to refer the planning & project activities as relevant.
3. The need to latest ITU recommendations for reference they are quoting them to specify requirements. It would provide framework for acceptance testing of new equipment as well as in verifying vendor's claims of meeting recommendations.

Submitted Documents:

1. Answers for the relevant 15 queries.
2. Procedure for Implementation of Projects

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Interviews & Gathered Data Report

Interview with:	GIS, Expert.	Date:	
Subject:	General information about Development of projects processes, Problems, &.	Contact:	
Unit:	GIS & Planning Dept.		

Objectives:

The main objective of GIS & Planning Dept. is meet customer requirements by developing, expanding the existing outside plant infrastructure and providing access to broadband services, using the New Technologies.

Responsibilities:

1. Plan, Design and Implement of outside Plant Network for both fiber optic and copper networks.
2. Plan, Design, and implement Buried Service Wire (BSW).
3. Regular review of the status on all outside plant facilities as a guideline for Network expansion before the network is exhausted.
4. Coordinate with customer services department to ensure customer problems are solved as fast as possible efficiently.
5. Ensure that Network records are updated by using AM/FM system.
6. Surveys of new planned areas and development of existing areas
7. Ensure that Outside Plant Planning and Implementation is adequate especially in fast growing areas.
8. Plan and Implement the Wireless on Local Loop (WLL) access for the appropriate areas in Oman.
9. Plan and Implement xDSL Networks
10. Deploy Pair Gain system wherever possible.
11. Coordinate with Switching and Internet sections in all matters concerning DSL, ISDN and other Broadband access technologies.
12. Investigate other appropriate access technologies.
13. Produce and maintain of all outside plant drawings and records.
14. Produce of all technical drawings required within OMANTEL
15. Update and maintain OMANTEL infrastructure records.

Coordinate with:

Internally:

1. Fixed communication Planning and projects Manager.
2. Tenders & Contracts Manager.
3. Civil Engineering & Power Manager,
4. Manager Fixed Transmission,
5. Finance Manager.
6. Customer services departments Manager.

Externally:

1. Telecommunications Equipment and Services suppliers, & Contractors
2. Ministry of Housing Electricity & Water for bare land sites acquisitions.
3. Municipalities' officials for site approval.

Interviews & Gathered Data Report

Current Procedures for Executing Projects:

Not available

Procedure Flow Chart:

Not available

GIS Unit Organization Breakdown Structure:

See attachments.

Problems:

The cause of delays of contracts execution are:

1. Lack communication.
2. Unclear Responsibility.
3. Obtaining the updated Maps from Ministry of Housing
4. Lack of base maps in some areas
5. Delays in getting approvals of the Appraisal reports
6. Delays in Tender preparation and floating
7. Difficulties to obtain necessary excavation permissions from various ministries.
8. Lack of adequate supervision of contractors.

6

Interviews & Gathered Data Report

Interview with:	<i>Strategic Planning ΜΑΝΑΓΕΡ</i>	Date:	
Subject:	General information about Development of projects processes, Problems, & SP & D Unit.	Contact	
Unit/Dept:	<i>Strategic Planning & Development Unit</i>		

Objectives:

To prepare long term (5 years) strategic development Plan, ensure that any project is technically justify in line with the capital budgets approved by the Board.

Responsibilities:

1. Preparation of Strategic plan of the organization.
2. Preparation of the quality standards, measurements, rules....
3. Preparation of tariff proposal in coordination with the units, presented to SP committee.
4. Ensuring that the projects are in line with the capital budgets approved by the Board.
5. Monitor the Capital Budgets by units
6. Technical Justification of project appraisal report.
7. Preparation of Feasibility Study.
8. Provide information to other departments/units and others.

Current Procedures for tendering and contracting projects:

The Outline of the current Project Appraisal process, within The Strategic Planning & Development Unit:

1. Receiving the End User Appraisal Report:

- 1.1 The Manager of the end user unit (Mobile, Fix, Internet, or Access network) forwards the Appraisal Report to Strategic Planning & Development Unit (SP&D) to review & complete the project feasibility study.
- 1.2 After registering the appraisal report in the Strategic planning and Development Unit record, the GM transfers the report to Corporate Strategy Dept. to review, check its technical justification, & complete the feasibility study.

2. Reviewing the project appraisal report:

Responsibility: *Corporate Strategy Dept.*

This Process includes the Followings:

- 2.1 Ensure that the proposed project is in line with the approved Corporate Strategy, within the current fiscal year, and/or the five-year plan.
- 2.2 Review the demand assessment
- 2.3 Review and justify the technical analysis.
- 2.4 Prepare/ complete the financial feasibility study. In case of new services, the feasibility study includes service pricing.
- 2.5 Prepare the document to be raised to Strategic Planning Committee (SPC), it encloses:

- a. Internal Communication, summarizing the project technically and

Interviews & Gathered Data Report

financially, recommending with justification / Requesting Committee's joint deliberations in case of stalemate.

- b. The project feasibility study.
- c. The revised / amended Appraisal Report.

In case of any inadequacy in the Appraisal Report, it is returned to End-User Unit, to clarify, modify and forward back the Amended Appraisal Report to the SP&D. Thereafter, the second process outlined above shall be followed.

Duration: 15 to 30 days, unless the appraisal report is incomplete and complex.

3. PROJECT APPRAISAL APPROVAL PROCESS:

- 3.1 After revising and approving, the General Manager of SP & D Unit forwards the final document (The internal communication, feasibility study and amended appraisal report) to the Chairman of the Strategic Planning Committee (SPC).
- 3.2 If the project is part of the Corporate Strategy and the approved 5 Year Capital Budget, The SP Committee has the authority to approve the project else forward it to the Executive Committee.
- 3.3 Non-budgeted and financially non-viable projects, which are capital intensive are referred to the Executive Committee, in particular, those projects that are to provide communication services to uncovered rural areas. This is to facilitate the Board to be aware of the business & financial implications of non-viable projects and at the same time to get commitment under Universal Service Obligation. These criteria exclude projects that are aimed at improving service quality and network quality characteristics. Also, the service tariffs to be approved by the Executive Committee, Board, Ministry of Finance and Cabinet.
- 3.4 Once the Project is approved by the SP Committee (by Executive Committee in case of non-budgeted and non-viable projects) the following actions are taken:
 - a. On signing the minutes and approval of the Minutes by HE The Minister, respective secretaries inform the concerned.
 - b. Concerned Unit Heads to take action for tendering in co-ordination with Manager, Tender & Contracts as per the tendering guidelines

Procedure Flow Chart:

The presentation of the above existing practice, see attachments.

Strategic Planning & Development Unit Organization Breakdown Structure:

See attachments.

Problems:

There are many problems, facing the execution of any project, lead to disappoint customers:

1. Miss-communication.
2. Unclear Scope of Work.
3. Unclear roles leading to duplication.
4. No coordination between units.
5. No accurate demand forecast....
6. Absence of efficient procedures to eliminate delay in process.
7. Inadequate technical justification.
8. Underestimate the project cost.

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Recommendations:

1. User department shall forward all projects to Technical Committee, based on the Technical Committee recommendation; the user dept. shall prepare the Appraisal report.
2. The technical Committee should develop a set of defined criteria within which the project could process, evaluated and recommended for approval.
3. The tariff proposal shall be discussed in a joint sitting of the technical and Strategic Planning Committees to ensure that the technical issues related to tariff proposals are taken care off.
4. Other initiatives, related to system expansion, operational, maintenance issues, dismantling of existing systems, and procurement of new systems etc. shall be routed through technical committee prior to tender committee.

Submitted Documents:

1. OMANTEL OBS (Arabic).
2. List of SP & D Unit member name.
3. Lists of responsibilities of each dept. in the SP & D unit.
4. Internal Communication, about responsibilities conflict b/w SP&D Unit and Technical Committee.
5. Document (Appraisal report) sent from SP& D to Chairman of SP Committee, including feasibility study, Appraisal Report from end-user, recommendation letter.
6. Proposed Flow chart for Tender & Contract Procedures.



Interviews & Gathered Data Report

Interview with:	<i>Manager, IT</i>	Date:	On 16 March 2003\
Subject:	General information about Development of projects processes, Problems, & IT Dept..	Contact:	63 1860 /1
Unit:	<i>Information Technology Department</i>		

Objectives:

Responsibilities:

Types of projects:

Coordinate with:

Internally within OMANTEL:

1. Manager Strategic Planning,
2. Manager Tenders & Contracts,
3. Manager Civil Engineering & Power,
4. Manager Fixed Transmission,
5. Manager Fixed Planning & Project,
6. Manager Installation & Maintenance,
7. Manager GIS & Network Planning,
8. Manager Internet Services,

Externally:

1. Telecommunications Equipment and Services suppliers such as
 - 1.a Ericsson,
 - 1.b Motorola,

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- 1.c Siemens etc,
- 1.d Other services providers/ sub contractors

- 2. Ministry of Housing Electricity & Water for bare land sites acquisitions.
- 3. A number of house owners (to the tune of 100s) for building site acquisition.
- 4. Municipalities' officials for site approval.
- 5. Ministry of Defense.
- 6. Royal Oman Police.
- 7. Helicopter Services Suppliers.

Current Procedures for Executing IT Projects:

Initiation Phase:

End-User Request/ Appraisal Report:

1. Technical Feasibility Study:

2. Appraisal Report: engineers prepare it, it includes:
 - 2.a Background of the Project.
 - 2.b The Technical Requirements for new system (MSC, BSC, BTS...)
 - 2.c Preliminary Survey/Forecast Subscribers.
 - 2.d Schedule of Implementation.
 - 2.e Preliminary Cost Estimation.
 - 2.f Cash Flow Estimation.
 - 2.g Recommendation
 - 2.h Approval requests.

The Planning and Projects Manager revises, if there is no Comment then to G. Manager else back to Engineer to Modify.

The Mobile Communication Unit General Manager revises, comments, Approves & transfer to Strategic Planning & Developing Department, PMO for review and further processing

Execution Phase:

1. Joint Survey (OMANTEL+ Contractor) to find out actual requirements of each site. OMANTEL' team from concerned units Civil & Power Engineering, Transmission.
2. Prepare and approval of Final Scope.
3. Site acquisition:
 - 3.1 New sites:
 - 3.1.a Bare land: demarcation of land, finally Krookies thru ministry of housing or purchase if it is belongs to private party, then support services to provide soil investigation, access road, boundary wall and power for bare land.
 - 3.1.b Building: Room acquisition by signing a contract with house owner at a fixed monthly rent.
 - 3.1.c Krookies of bare land/Room acquisition information to contractor for site layout sketch for OMANTEL approval.
 - 3.1.d Installation Of GSM equipment by contractors.
 - 3.2 Upgrade of Existing sites:
 - 3.2.a Provision of additional power & transmission if required.
4. Provision of transmission link by transmission dept. or HDSL by Access network (**) if not included in the FSOW.

Commissioning Phase:

1. Acceptance Tests by concerned Unit of OMANTEL (i.e. Power, Civil works, Transmission & GSM equipments).
2. Issuance of Interim Acceptance Certificate IAC.
3. Issuance of Provisional Acceptance Certificate, once all IACs are completed and issued.

Interviews & Gathered Data Report

4. After one year from PAC, Issuance of Final Acceptance Certificate FAC.
5. Reconciliation and Closing the contract.
6. Post Project Appraisal.

Procedure Flow Chart:

For the Flow Chart of the above procedure, see attachments.

IT Dept Organization Breakdown Structure:

See attachments.

Problems:

The cause of delays of contracts execution are:

- 1.
- 2.
- 3.
- 4.
- 5.

Recommendations:

Submitted Documents:



Interviews & Gathered Data Report

Interview with:	GM, Mobile Communication Unit	Date:	
Subject:	General information about Development of projects processes, Problems, & MC Unit.	Contact:	
Unit:			

Objectives:

To provide High Quality, seamless Mobile Services at an Optimal cost to OMANTEL and its Valued Customer, & Strategically plan the introduction of new technologies when matured at a Minimal Cost to OMANTEL.

Responsibilities:

1. Implementation and expansion of GSM Network, in terms of Capacity/ coverage. In addition other Mobil Services such as Paging, VMS, SMS, Private Radio Telephone.
2. Execute Mobile Communications Projects within the stipulated time frame to avoid cost over run, provide services to our valued customers in a minimal possible time frame.
3. Introduction of Value Added Services (e.g. GPRS, MMS etc)
4. Introduction of new technology (e.g. 3G)
5. Looks after customers expectation (In terms of Quality)
6. Type approval of equipments (Paging, GSM handsets etc)

Types of projects:

There are three types of projects: New GSM Network , Expansion, and Maintenance & Operational Projects.

Coordinate with:

Internally within OMANTEL:

1. Manager Strategic Planning,
2. Manager Tenders & Contracts,
3. Manager Civil Engineering & Power,
4. Manager Fixed Transmission,
5. Manager Fixed Planning & Project,
6. Manager Installation & Maintenance,
7. Manager GIS & Network Planning,
8. Manager Internet Services,

Externally:

1. Telecommunications Equipment and Services suppliers such as
 - 1.a Ericsson,
 - 1.b Motorola,
 - 1.c Siemens etc,
 - 1.d Other services providers/ sub contractors
2. Ministry of Housing Electricity & Water for bare land sites acquisitions.
3. A number of house owners (to the tune of 100s) for building site acquisition.
4. Municipalities' officials for site approval.
5. Ministry of Defense.
6. Royal Oman Police.

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7. Helicopter Services Suppliers.

Current Procedures for Executing GSM Projects:

Initiation Phase:

End-User Request/ Appraisal Report:

1. **Technical Feasibility Study:** Engineers prepare it, states the solution required for the GSM problems. Then transfer to Mobile Planning and Projects Manager to review, if it needs more clarification then back to engineer else to General Manager for approval to prepare the "Appraisal Report"
2. **Appraisal Report:** engineers prepare it, it includes:
 - 2.a Background of the Project.
 - 2.b The Technical Requirements for new system (MSC, BSC, BTS...)
 - 2.c Preliminary Survey/Forecast Subscribers.
 - 2.d Schedule of Implementation.
 - 2.e Preliminary Cost Estimation.
 - 2.f Cash Flow Estimation.
 - 2.g Recommendation
 - 2.h Approval requests.

The Planning and Projects Manager revises, if there is no Comment then to G. Manager else back to Engineer to Modify.

The Mobile Communication Unit General Manager revises, comments, Approves & transfer to Strategic Planning & Developing Department, PMO for review and further processing

Execution Phase:

1. Joint Survey (OMANTEL+ Contractor) to find out actual requirements of each site. OMANTEL' team from concerned units Civil & Power Engineering, Transmission.
2. Prepare and approval of Final Scope.
3. Site acquisition:
 - 3.1 New sites:
 - 3.1.a Bare land: demarcation of land, finally Krookies thru ministry of housing or purchase if it is belongs to private party, then support services to provide soil investigation, access road, boundary wall and power for bare land.
 - 3.1.b Building: Room acquisition by signing a contract with house owner at a fixed monthly rent.
 - 3.1.c Krookies of bare land/Room acquisition information to contractor for site layout sketch for OMANTEL approval.
 - 3.1.d Installation Of GSM equipment by contractors.
 - 3.2 Upgrade of Existing sites:
 - 3.2.a Provision of additional power & transmission if required.
4. Provision of transmission link by transmission dept. or HDSL by Access network (**) if not included in the FSOW.

Commissioning Phase:

1. Acceptance Tests by concerned Unit of OMANTEL (i.e. Power, Civil works, Transmission & GSM equipments).
2. Issuance of Interim Acceptance Certificate IAC.
3. Issuance of Provisional Acceptance Certificate, once all IACs are completed and issued.
4. After one year from PAC, Issuance of Final Acceptance Certificate FAC.
5. Reconciliation and Closing the contract.
6. Post Project Appraisal.

Interviews & Gathered Data Report

Procedure Flow Chart:

The presentation of the above existing practice, see attachments.

Mobile communications Unit Organization Breakdown Structure:

See attachments.

Problems:

The cause of delays of contracts execution are:

1. Sites acquisition of bare land/ building sites.
2. Delay delivery of Civil and Electro mechanical works.
3. Delay delivery of Access links (Transmission + HDSL).
4. Lack of communication.
5. Unclear Responsibility.

Recommendations:

OMANTEL rely on projects and operation to deliver value and innovative Offers to their customer. When a project is implemented within stipulated time frame, the benefits are achieved:

1. No cost over run of the project.
2. Utilization of capital expenditure within estimated time frame.
3. Avoidance of early absoluteness of equipments.

To implement the project with in stipulated time it is required to decentralize the works related to project execution. Mobile Unit required to be given the followings:

1. **Autonomy:** Mobile unit needs autonomy to decide its own activity, related to project implementation, in order to meet growing demands. It should have its own discretionary power to execute projects by its own support activities. Hence, the Mobile Unit needs some autonomy to decide its own. The review of limited autonomy can be discussed in a separate forum.
2. **Authority:** Mobile unit needs authority to decide and finalize its day-to-day works related to projects, which is presently not under its preview. In present circumstances many activities are on the crucial path and those activities shall be completed on highest priority, but time and efforts allocated by other units are not enough to complete those activities within stipulated time frame due to their own priority. Decentralization of activities is certainly going to be a big boost for Mobile Unit.
3. **Trust:** By empowering the limited autonomy and a certain level of Authority, it is required to build trust. To begin with, trust must be there on the delegation of Autonomy and Authority. We feel that with the passage of time and decentralization of Autonomy and Authority, Mobile Unit can trust with the management with its performance.
4. **Audit:** With certain level of delegation of autonomy and authority, it is required to have periodic audit (technical and commercial) of the whole system. An audit can put control

Interviews & Gathered Data Report

and proper utilization of autonomy and authority.

Submitted Documents:

1. Copy of Final Acceptance Certificate (FAC).
2. Copy of Provisional Acceptance Certificate (PAC).
3. Copy of Interim Acceptance Certificate (IAC).
4. Copy of Payment Certificate (PC).
5. List of GSM Project & summaries.
6. Monthly Progress Report.
7. Report on Causes of Delay of Contract Execution, Effects of Delay, some Cases.
8. Project Execution Chart.
9. Statistics Reports.
10. Minutes of Meetings.
11. Details of Activities of Sohar MSC in Chronological Order.

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

Name	David J. Skinner	Interview No.	I-1
Position	Regional Manager	Date: 28/March/2005	
Organization	Carillion Alawi LLC		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

The company is a branch of an international construction firm. It is one of the biggest construction companies in Oman. The business environment is highly competitive (36 companies in the market). Competition is categorized geographically as per the following:

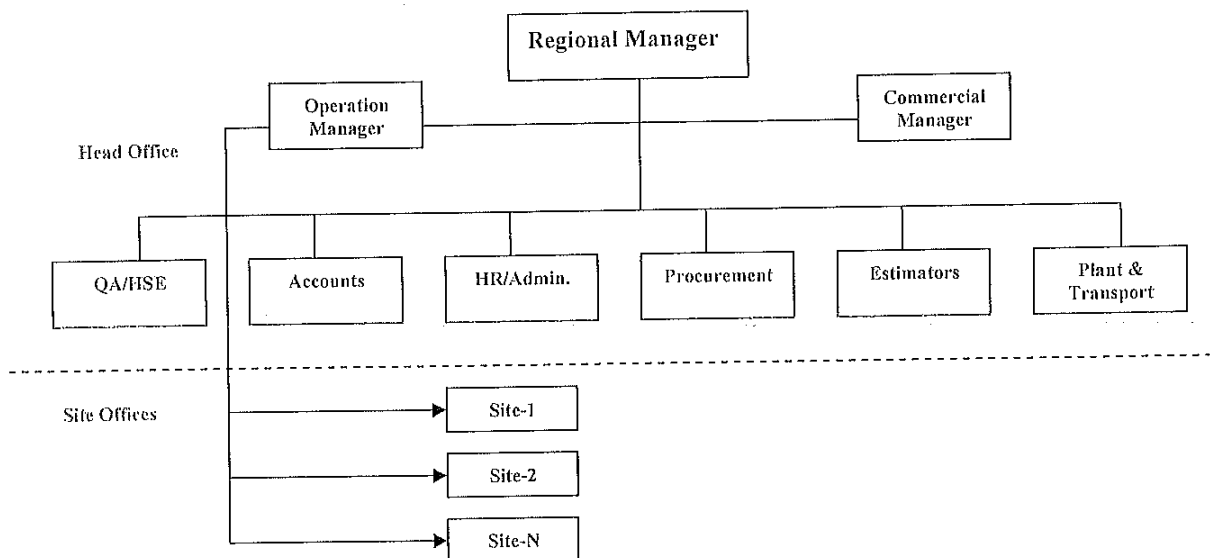
- Low-cost base: Chinese, Turkish, Egyptian, Korean companies,
- Med-cost base: Japanese, local, Indian companies,
- High-cost base: European, American, Japanese companies.

The local competitors are analysed and ranked based on the following strength factors:

1. Strength of the local partner (authority level, and culture)
2. Financial (invested capital, credit worthiness, LC & bonding facilities, last audit balance sheet, Capex spend)
3. Procurement (procurement power, control of imports)
4. Management (investment & local involvement in administration, local partner's involvement in business securing)
5. Capability/vertical integration (in-house availability of plant and machinery, capability and quality of staff,
6. Operation (site control, quality and productivity, commitment to complete on time, health and safety)

The critical success factors are:

- 1- Programme/Delivery
- 2- Quality
- 3- Health/Safety and Environment.



Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

The process of strategic/business planning process is a top-down approach. It starts when The Chief Executive Team of Carillion plc decides specific corporate directions; such directions are based on shareholder sentiment and industry analysts (example of directions minimize construction projects and focus on PFI and services' projects). Then, each geographic business assesses local market opportunities and translate the directions into SMART (Specific, Measurable, Attainable, Related to Customers, and Time-based) strategic objectives, commentary to support the business to achieve the corporate directions. After that, a set of action plans for each of the strategic objectives against which delivery of the strategic objectives can be measured quarterly. Risks to the strategic objectives are identified, analysed and mitigation plans are developed. Finally, financial plans are developed and compiled in Business Plan Document categorized by market segment (Government, Private, & Retail); then this document is presented to the Operation and Finance Directors of the group; whom they consolidate the plans for all businesses and develop one Group Business Plan Document.

The Business Plan Document contains the following information for each market segment:

- Major Business assumptions (e.g. continuous increase in oil prices)
- Actions on how the business unit plans to deliver real competitive advantage?
- Description of each business opportunity (segment),
- Key customers in this segment and what are their buying factors?
- Analysis of competitors' strength,
- Building Competitive Leadership- Action Plan (What are the attributes and competencies that we need to build on and how?)
- Risk Management Plan
- Financial Plan

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

Same as 2 Above

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

There are processes used to ensure strategies' implementation, but they are not rigid and formal. The action plans are assigned according to responsibility matrix. Targets and objectives are reviewed every 2-3 months internally within business units; and reviewed every 6 months by the group. Also, there is ad-hoc reviews.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

60-100% is the maturity level. But project management is used at the micro-level to manage sites, resource allocations, scheduling and resource management between the various site offices.

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

Challenges:

- Sometimes corporate strategies are not applicable to local market conditions (communicate with various business units before deciding strategies),
- External risks (like drop in the oil prices),
- Resources' shortage,

Overcoming these challenges
by: using PM applications (Risk
management and close-controls)

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-2

Name	Mohammed Al-Farsi & Mohammed Al-Harthy	Interview No.	2
Position	Mgr. Branding & Communications/ Mgr. Corporate Affaires	Date:	20 th March 2005
Organization	Shell Oman Marketing Company		

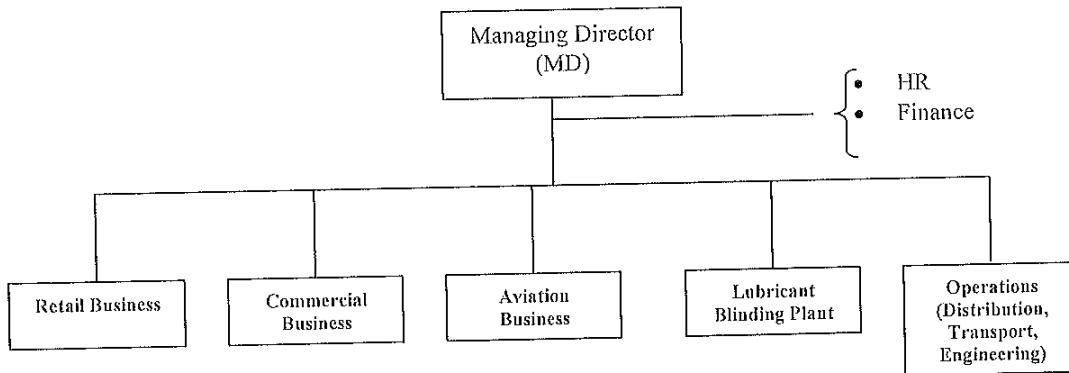
Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

Shell Oman Marketing Company is a public share company, where Shell Royal Dutch owns 49% of it and the remaining 51% owned by Omani public investors. The main business is reselling of petrol products (like motor oil, grease, lubricants) and retail outlets. The business environment is highly competitive, as there are three major companies: Shell Marketing, Oman Oil, and Al-Maha. The most important Critical Success Factors are: Geographic location of the filling station, Value added services like retail stores, facilities like car wash, oil change...etc.



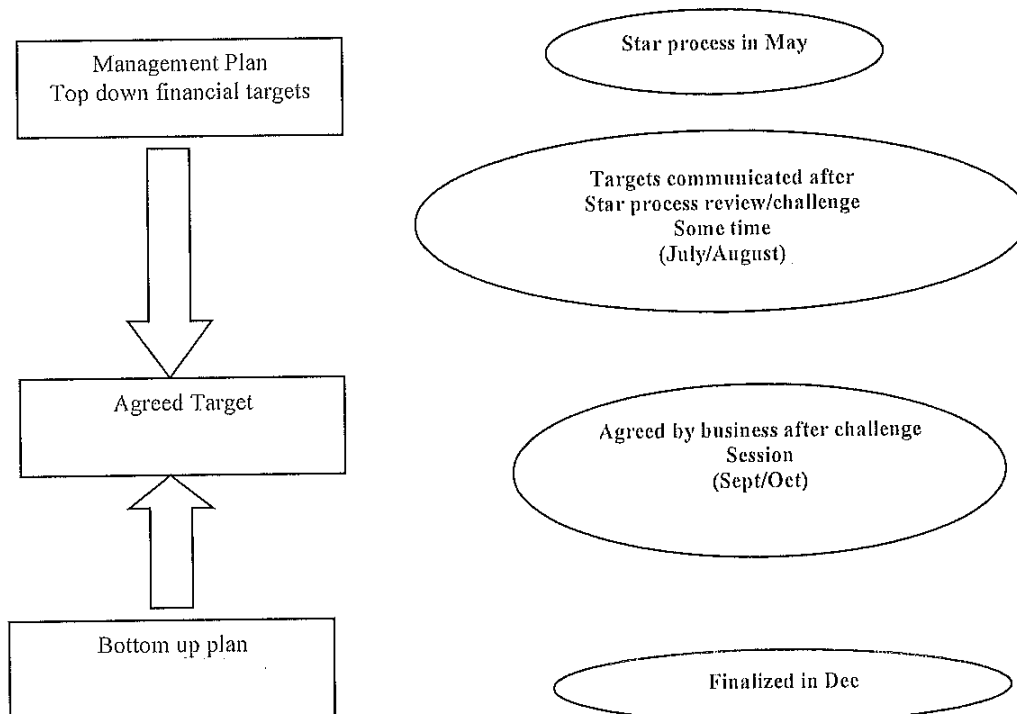
Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

The process is top-down and follow the following steps:

- Targets are set by Shell group function corporate department for the overall group on the basis of high level corporate strategies,
- These targets are communicated to the functional units,
- Targets are translated on action plans by assigning financial and non-financial resources by each functional departments,
- The action plans are further translated into measurable targets (KPI),
- The targets are monitored through Balanced Scorecard and reviewed on periodic meetings of the Key Performance Indicators (KPI's).

The figure below summarized the above steps with timelines:



Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

Same as Question Number 2

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

The Balanced Scorecard technique, Performance forum that meets in a monthly basis to review KPI's for same year and compare with previous year.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

- 30-60% Project Management is used to execute technical projects only; it is used at operation level.
- PM training is part of core training programs.

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

Major challenges in the business: limited resources, financial approval process tends to be lengthy, standards are very strict (Health, Safety, Security, & Environment) and consume time.

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-3

Name	James Young	Interview No.	
Position	Senior Consultant/Managing Consultant	Date: 16-03-2005	
Organization	INDECO LTD.		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

INDECO is a management Consultancy specializing in Portfolio Management and Project Management as well as the Procurement and Contract Management functions. Our clients tend to have significant capital budgets and seek to improve the value that these provide their businesses. Sponsorship for our assignments tends to come from Senior Executive and Board level.

INDECO has a number of business streams:

- Project services-provides hands-on project management, project control, project/peer reviews, procurement and contract management support.
- Enterprise-Wide Project Management-provides organizational development support, benchmarking, business process development, systems design and competency development services.
- Training-provides competency assessment, training, mentoring and executive support services
- Operational effectiveness-provides business performances assessment and change management support to companies seeking to improve their operational effectiveness.

Most of INDECO's work comes from repeat business and personal influences-this reflects INDECO's focus on quality of deliverables, meeting the needs of the customer and having the capability to implement concepts and the theories most other Consultancies cannot derive.

These 3 are therefore, core to our business and form critical success factors:

- Quality of deliverable
- Understand the needs of our customers
- A mixture of analytical and academic vigor with pragmatic implementation in our project teams.

Naturally, this must be underpinned by good Client relationship development skills.

Each business stream is headed by a Managing Consultant when reports to the Board. Each business stream manages its own portfolio of projects and reports performance monthly.

Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

Inputs to INDECO's strategy came from a number of sources:

- Internal reviews of business performance to identify which aspects of the Company are performing well and which are not. Also, identifies which types of project and contract deliver most benefit.
- Industrial research to reveal industry trends and specific opportunities.
- Customer feedback and relationship management to ensure that INDECO's delivery remains on track, relevant and strengths and weaknesses can be capitalized on.
- Strategic initiatives may also be launched to drive demand; when an opportunity is presented it is initially assessed to determine whether it has an implication on strategy.

All strategic decisions are reviewed and approved by the Board, who identify the Project Manager, budgets, schedule and business case.

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

Business planning essentialities has two elements at INDECO:

- Workload forecasting-quarterly look-aheads to determine revenues and resource requirements/constraints.
- Resource forecasting-the workload forecasting feeds INDECO's resource planning and strategies (INDECO's business is resource driven).

(Each Managing Consultant is responsible for reporting a quarterly workload forecast on a monthly basis. Long term opportunities are also considered at this stage. Resourcing plans are also proposed for consideration.

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

Annual business targets are set by the Board in conjunction with the Managing Consultants.

These are then translated into business stream targets and strategies that are reported on a monthly basis.

The business strategy and targets are reviewed quarterly in response to performance achieved to-date and market trends.

Essentially, the strategy implementations are treated as a project.

- Each business target drives a portfolio or program
- Each of these develops a plan and a business case
- The Board reviews progress periodically (monthly and quarterly).
- Projects can be stopped at any time.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

It is core to our business. Project Management techniques are used to determine strategy to drive marketing to monitor business activities and to perform assignments for our clients.

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

Key challenges are:

- Ensuring all ideas and concepts that drive the strategy are captured and routinely assessed.
- Assuming that only the right projects to implement the strategies are authorized.
- Assuming that quality is maintained in delivery and that there is transparency and accuracy in progress reports/revised business cases.
- Ensuring that personnel remain focused on existing commitments rather than moving on to the "next big thing".

Solutions:

- Commitment to implement processes in a consistent manner throughout the Company.
- Transparency and frequency of reporting

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-4

Name	Mr. Hamdan Al-Shaqsy	Interview No.	1
Position	Finance Manager & SoB	Date:	14 th March 2005
Organization	Oman Liquefied Natural Gas Company (OLNG)		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

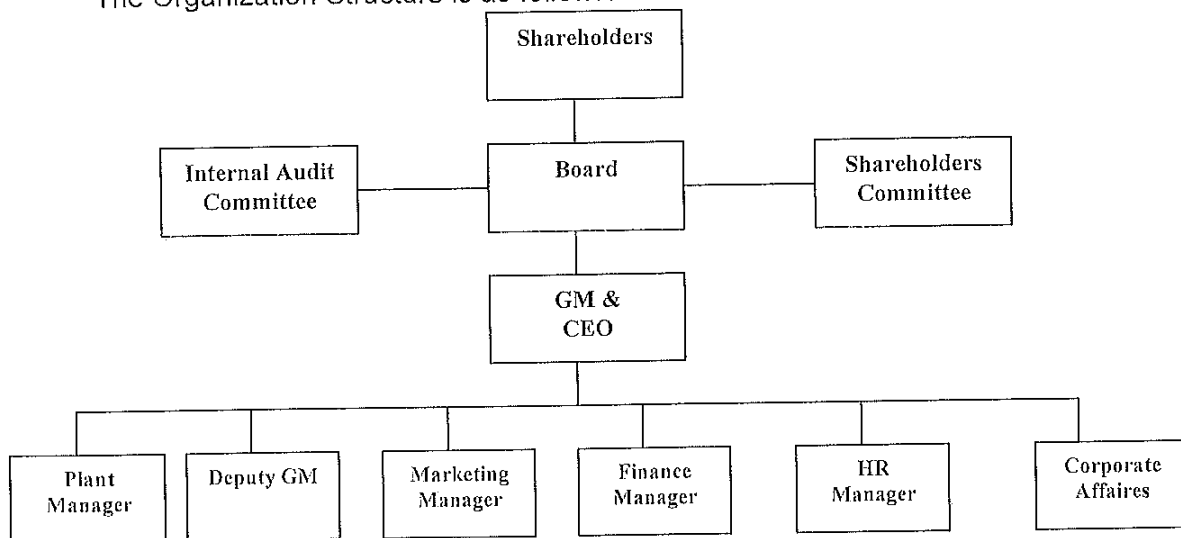
The business environment is competitive from international players such as: MLNG, BLNG, ADGAS, RasGas etc.. The demand for LNG from Oman is centered in the Asia-Pacific region (around 70-80%) where the returns are most attractive. From this, one can describe that the business environment is highly competitive for the remaining volumes we have.

The critical success factors are identified for all the stakeholders of the business (Customers, Employee, Shareholders, Society, and Contractors & Suppliers). But all the critical success factors are derived from the overall company's vision: (...Creating Value for all Oman LNG Stakeholders). Critical Success Factors are defined by management team based on the challenges of the business and validated by the employees (about 60 staff across all functions) in an annual workshop.

The shareholders are:

Omani Government	51%
Shell	30%
Total	5.54%
Korea LNG	5.00%
Mitsui	2.77%
Mitsubishi	2.77%
Patric	2.00%
Itochu	0.92%

The Organization Structure is as follows:



Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

- 1- The process starts by the Management Team conducting brainstorming session to identify the Critical Success Factors (CSF) of the business. Then the CSF will be shared with all functions for them to develop action plans for the following year against each CSF. The CSF is also tabled for challenge by the staff in a workshop session attended by about 60 people.
- 2- Through workshop teams are formed based on the stakeholder model, and each team will have developed its own action plans then a multi-disciplinary team will have the opportunity to move around all the stakeholder stands (Souq) to challenge the actions plans and suggest improvements.
- 3- The action plans are refined and translated into detailed business plans by each functional by assigning financial and other resources and timelines and agree on the KPI's and Balance Scorecards for measurement purposes; this task is developed in close coordination and monitoring of the strategic finance function.
- 4- Strategic Finance collects all the business plans and documents them in booklets which are presented in two volumes: Vision/high level scenarios and action plans and quantitative and monetary presentation of all targets.
- 5- Discussion and approval of the Advisor Committees and the Board of Directors.
- 6- Communication of the approved business plan down through the organization through several workshops for all employees together with the Balance Scorecards booklet
- 7- Monitoring the performance through monthly review meeting with the management and quarterly by the board.

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

Same as Question 2 above

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

SMART (Specific, Measurable, Achievable, Related to Customers and Time-based) actions are set for all functional departments/units. Then, the functional managers transfer these actions into individual's tasks and targets plans. The monitoring of the performance is accomplished by the following tools:

- Company Scorecard and milestones for projects in each year
- For shareholders, a monthly review report is sent. This report maps the CSF with the progress on a monthly basis. Also, operation performance is included in this report.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

The maturity level is: 30-60% only. The reasons are: OLNG is a manufacturing company and not a project company; application of project management is limited to maintenance and support projects only (buildings, fencing, routine maintenance works).

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

Challenges are: lack of pro-active planning from Business Units; lack of history to base assumptions on (being the first LNG company in Oman, example: lower quality feed gas into the plant was not expected during the first years of operations caused interruption in the original plan); mandate of the management does not allow faster and flexible operation of the business; competency of the staff. These challenges are being overcome through various strategies as follows:

- OLNG is undertaking competence mapping, assessment of gaps and targeted training and development plans to close the gaps.
- Project Management skills are being promoted to ensure that all project managers and related staff are fully trained on project management.
- Contract holder certification scheme for all staff handling contracts
- Review of authority levels to ensure adequate mandate for Management
- Knowledge sharing with other LNG companies and benchmarking is being initiated to gauge OLNG's position amongst similar operating companies.

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-5

Name	Ganedan Sridhar	Interview No.	
Position	Dy. General Manager	Date:	21/3/2005
Organization	Bank Muscat.		

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

The financial institution framework in Oman comprises mainly of commercial banks, a few special purpose banks and financial institutions. The Central Bank of Oman, the supervisory and regulatory authority for all banks and financial institutions in the Sultanate, is at the helm of affairs of the Omani financial institution frame work and system. The financial system in the Omani banking and financials institution has undergone several changes over the last few years. There have been a series of mergers – after which, there are, now, 14 banks operating in the country – 5 of the 14 are locally incorporated commercial banks and 9 are branches of foreign banks. In addition, there are 3 specialized banks – Oman Housing Bank, Oman Development Bank and Alliance Housing Bank which focus on specific and targeted lending.

The drawing lines between commercial banks and financial institutions operating in the country are often vague and thus they compete for all corporate related credit and lending activities in the Sultanate. With consolidation and restructuring of the financial sector, the financial environment has become increasingly competitive with the customers and corporates having wide choice of banking services and products. BankMuscat, the foremost corporate banking player in the market must be able to consolidate and further enhance its position in the current competitive market in the coming years.

Organizational chart is attached.

Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

The Board of Directors of the Bank is the principle organ of the Bank which formulates, articulates and directs implementation of the corporate strategies and policies.

The overall business terms and strategies are set by the Board periodically and most specifically annually. The annual report of the Bank contains a detailed discussion presented by the Board of Directors of the Bank on overall business plans and directions.

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

The directives of the Board are elaborated by the Management in terms of detailed business plan and structural strategies. These in turn are discussed in detail with the stakeholders of the Bank through the management discussion report and monitored through discussions in the Management Committee meetings held periodically.

The management business plan comprises of long term plan covering a period of 5 years as well as annual plans. The annual planning and budgetary exercise is carried out using a bottom up approach wherein the business groups formulate the business plan based on the overall direction and precise the numbers.

The plans and progress are reviewed at different levels of the organization culminating with the Board periodically. In addition to Annual Reports, Quarterly Reports are made available to shareholders and depositors. Additional information on the progress of the Bank's business is posted periodically at the Bank's web-site as well as through the press communiqués.

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

The budgetary process is the main tool used by the bank to ensure implementation of strategies and business plans.

The progress of the implementation on strategies is reflected in the business figures or compared with the budget estimates and variation analysis in detail to understand the level of implementation of strategies and any remedial action that may be required to ensure appropriate implementation of the strategies.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

The concept of project management is widely used in the organization. Projects are identified for implementation using project management techniques in the following areas:

- (i) Development of new project and services
- (ii) Implementation of new IT systems
- (iii) Development / implementation of human development initiatives
- (iv) Major growth in new geographical or business areas

In respect of the above mentioned, project teams are set up each project-wise for follow up and implementation. The maturity level of project management concept can be placed in the high percentile (over 80%).

- No separate Department.
- Only within IT Department.
- because of the soft of the processes are complete; it allows smooth flow of businesses. so the need is not high for PM.
- But, it is used in VAs. ~~PM~~
PM

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

The most critical challenges in execution of strategies are the following:

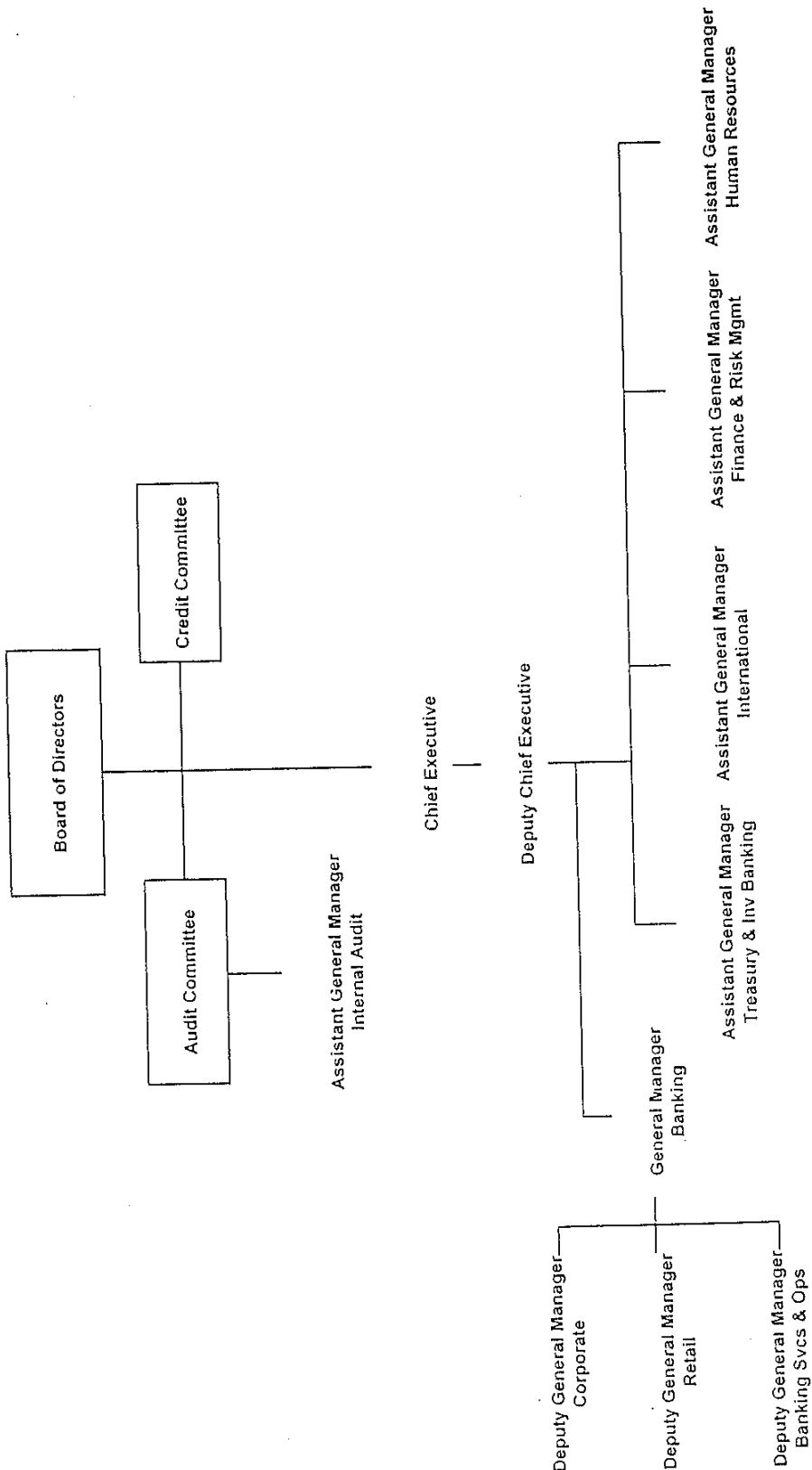
- (i) Communication of the strategies to different units in order for the entire team to understand the thrust of the strategies.
- (ii) Allocation of responsibilities to various business units and functions for part implementation of overall strategy.
- (iii) Co-ordination of the actions of different teams and departments in order to achieve synergy in the activities of different departments.
- (iv) Mobilization and allocation of adequate resources.
- (v) Controlling the efficient use of available resources.

The ways to overcome the above challenges shall be found in adopting better communication throughout the organization .

- As compared to the size of the organization.

- Matrix organization / Functional organization.

Management



Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-6

Name	Ralf Fueller	Interview No.	
Position	General Manager	Date:	28. March 2005
Organization	Siemens AG Muscat Branch		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

Siemens success depends on innovation, customer focus, global competitiveness and portfolio optimization. Our commitment to innovation includes spending more than €5 billion in R&D in fiscal 2004. We bring innovation to market as rapidly and profitably as possible, such as by using common technology platforms across multiple businesses. Customer focus means meeting our customers' needs rather than simply selling a product or service. We maximize our customers' satisfaction and our market penetration through various initiatives, including cross-selling programs. We also stimulate sales through our growing service businesses. We secure and enhance our global competitiveness by utilizing and optimizing all parts of our worldwide value chain, which reaches into approximately 190 countries. In addition, we identify and execute on opportunities to expand our presence in our growth regions. Siemens is a diversified company with businesses in both short-cycle and long-cycle industries. We continually optimize this balance through strategic acquisitions and divestments.

The majority of Siemens' business is devoted to providing products and services to customers based on Siemens' historical expertise in innovative electrical engineering. We call this component of our business Operations. The 13 Groups in Operations design, manufacture, market, sell, and service products and systems, or help customers use and manage those products and systems. A Group is equivalent to a reportable segment as defined by United States Generally Accepted Accounting Principles (U.S. GAAP).

Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

- Siemens' aim is to be a global leader in electrical engineering and electronics with high profitability. All Company measures and programs are focused on this ultimate goal. The Supervisory Board of Siemens AG focuses intensively on the Company's situation and prospects. The Managing Board provides the Supervisory Board with timely and comprehensive information on a regular basis. The Supervisory Board is involved in major Company decisions, advises the Managing Board and monitors Company management.
- The Company's business portfolio is being continuously optimized within the specified framework. For this reason, targeted acquisitions are made to strengthen individual segments, particularly in growth markets.
- In the Siemens Management System – which includes the *top+* programs Innovation, Customer Focus and Global Competitiveness as well as a number of related initiatives –the key action areas for driving Company growth in the next few years are defined.
- Personnel management is brought into line with the Company's business strategy and business policies. In the last few years, the Managing Board has revamped the systems and processes for personnel development to take into account the increasing internationalization of the activities. Siemens has developed a clearly focused, comprehensive and consistent management system to tackle the challenges of ongoing globalization.

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

We base our strategic planning and our day-to-day business practices on high ethical and legal standards. Our Business Conduct Guidelines – globally binding rules that apply to every Siemens employee and require us to abide by laws, to show mutual respect, and to act honestly and with integrity – set the basis for our conduct. Every two years, our managerial employees sign a pledge renewing their commitment to uphold these rules. We have officers at company headquarters and in our Regional Companies and Groups to whom employees can turn for advice when confronted with an ethical conflict situation.

We conduct audits to ensure that our regulations on work safety and healthcare provisions and on protection of the environment are being implemented properly worldwide, and we offer our Regional Companies any advice and support they may need. We have also introduced strategic and organizational guidelines on corporate citizenship to establish a global framework to channel the wide range of initiatives undertaken by our operating units and regional units within their local communities.

Our Principles and our Business Conduct Guidelines form part of the curricula in our training programs for junior employees. Our management training programs address corporate responsibility in its various facets and provide practical examples from within our Regional Companies and Groups.

In addition, there are a number of conventions and recommendations from international organizations. They are primarily addressed to Member States and not directly to companies. Nonetheless, they are important guidelines for the conduct of multinational companies and their employees. Siemens therefore emphasizes the importance of being globally in accordance with these guidelines. For Transparency International, a respected global non-governmental organization, we have signed a pledge to actively combat corruption.

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

At the beginning of fiscal 2004, we updated our *top+* Business Excellence Program to create the *top+* Siemens Management System. Building on Siemens' visions, goals, and principles, its purpose is to rigorously implement the company's strategy. We are currently concentrating on three company-wide programs, *Innovation*, *Customer focus*, and *Global competitiveness*, designed to further optimize our performance and processes in different areas. The goal of our *Innovation* program is to position Siemens as a premier innovator; our *Customer focus* program sets out to intensify our customer relationships worldwide and to increase utilization of market potential; and the objective of our third company program, *Global competitiveness*, is to optimize value creation. To support the goals of the *top+* Siemens Management System, we have reorganized our competency building and development programs for managerial employees. All company training initiatives have now been combined within our newly formed Learning Campus. We have also reorganized and streamlined our managerial organization structure, processes and events schedule, including our global and regional management conferences and programs.

With this updated and realigned management system, we can steer the company with greater precision and efficiency and leverage Siemens' traditional fortes – a robust portfolio, innovative strength, customer focus, a global presence, and sound financial management – to build a market-leading competitive position.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

The "Project Management at Siemens" (PM@Siemens) Initiative was introduced as a significant means of improving profitability, with the aim of giving Siemens a clear edge over the competition through a standardized scale of qualifications for its Project Managers.

- 53 recommendations have meanwhile been drawn up. Group-specific implementation thereof is now complete, including Scorecard Controlling.
- A career model applicable throughout Siemens has been devised. This model comprises uniformly organized qualification stages: Team Member, Project Manager, Senior Project Manager, Project Director.
- The PM@Siemens Academy is firmly established.
- All Groups apply standard assessment procedures to measure the level of maturity in processes and projects.
- A standard auditing module for project management is being applied.
- Rollout has taken place in many Regional Companies and in the US.

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

Siemens' risk management policy stems from a philosophy of pursuing sustainable growth and creating economic value while avoiding and managing inappropriate risks. Because risk management is an integral part of how we plan and execute our business strategies, our risk management policy is set by the Corporate Executive Committee (a committee of the Managing Board that includes both the CEO and CFO). Siemens' organizational and accountability structure requires each of the respective Group managements to execute risk management programs that are tailored to their specific industries, yet consistent with the overall policy established by the Corporate Executive Committee.

Moreover, Siemens has implemented a coordinated set of risk management and control systems to help anticipate, measure, monitor and manage its exposure to risk. The most important of these systems include our well-established, enterprise-wide processes for strategic planning and management reporting. The former allows us to consider potential risks well in advance of major business decisions, while the latter enables us to monitor such risks more closely as our business progresses. Our internal auditors also regularly review the adequacy and effectiveness of our risk management and control systems and appropriate modifications are adopted. This coordination of processes and procedures is intended to help ensure that the Managing Board and the Supervisory Board are fully and timely informed about significant risks.

Below we describe the major categories of risks that could materially affect our business, our financial condition or our results of operations. The risks we describe here are not necessarily the only ones we face. Additional risks not known to us, or others that we now consider to be less significant, could also adversely affect our business.

Business risks

Siemens is affected by the uncertainties of economic and political conditions. For example, our ICN and ICM Groups are particularly affected by the market conditions in the telecommunication industry. Our SV and Osram Groups are suppliers to the automotive industry and their sales and profitability could be negatively impacted by the financial condition of their automotive customers. In light of these economic conditions, in fiscal 2004, we continued our cost-cutting measures. The contribution of these measures to our profitability will be influenced by the actual savings achieved and by our ability to sustain these ongoing efforts.

The worldwide markets for our products are highly competitive in terms of pricing, product and service quality, development and introduction time, customer service and financing terms. We face strong competitors, some of which are larger and

may have greater resources in a given business area. Siemens faces downward price pressure and is exposed to market downturns or slower growth.

Siemens businesses experience rapid and significant changes due to the introduction of innovative technologies. To meet our customers' needs, we must continuously design new, and update existing, products and services and invest in and develop new technologies. This is especially true for our Groups ICN, ICM, SBS, Med and SV. Introducing such new offerings requires a significant commitment to research and development, which may not always result in success. Our sales may suffer if we invest in technologies that do not function as expected or are not accepted in the marketplace or if our products or systems are not brought to market in a timely manner or become obsolete.

Our strategy involves divesting our interests in some business areas and strengthening others through acquisitions, strategic alliances, joint ventures and mergers. Transactions such as these are inherently risky because of the difficulties of integrating people, operations, technologies and products that may arise.

Operational risks

A majority of our operating Groups, including ICN, ICM, SBS, I&S, L&A, PG, PTD and TS, perform a significant portion of their business, especially large projects, under long-term contracts that are awarded on a competitive bidding basis. The risks associated with these projects include unexpected technological problems, unforeseen developments at project sites, problems with our partners and subcontractors companies, and logistic difficulties. Any of these factors could lead to significant cost over-runs or project penalties. We also have production facilities worldwide with a high degree of organizational and technological complexity. We therefore face risks within our value chain processes such as operational failures, quality issues and potential safety risks involving our products, our workers, or the environment. To manage these risks, we have established a comprehensive set of policies and procedures relating to project and quality management, product safety, workplace safety, and environmental protection. We also continuously develop and refine our production processes and technologies and our administrative processes. In addition, we rigorously maintain our facilities and train our employees.

Our operating Groups are exposed to fluctuations in energy and raw material prices. In the recent past, oil, steel and copper prices in particular have increased on a worldwide basis. If we are not able to compensate or pass on our increased costs to customers, this could have an adverse impact on our results of operations.

Supplier risks

We rely on third parties to supply us with parts, components and services. This reliance creates risks that our businesses could be affected by unexpected shortages on the part of suppliers, or by unexpected price increases due to market forces or currency fluctuations. Using third parties to manufacture, assemble and test parts and components also limits our direct control over

manufacturing yields, quality assurance, and delivery schedules. We manage these supplier-related risks by closely monitoring our supply markets, carefully evaluating supplier performance, and using long-term agreements to ensure favorable supply, pricing and delivery of key parts, components, and services.

Human resource risks

In many of the fields in which we operate intense competition exists for highly qualified managers, professionals, and technicians who possess the necessary scientific, technical or industry-specific skills we require. Therefore, we face risks related to our continued ability to recruit, assimilate and retain qualified people in all these areas. To manage these risks, we maintain intensive contact with trade schools, universities, and professional associations that educate and train the people we are likely to need. We also provide abundant opportunities for existing employees to acquire new skills and knowledge related to our business; attractive remuneration systems aimed at retaining qualified employees; and programs designed to successfully integrate new employees into the Company.

Credit risks

Siemens provides various forms of direct or indirect financing to customers in connection with large projects such as those undertaken by ICN, ICM, PG and TS. Because we have the capability to engage in large infrastructure projects throughout the world, such financing could expose us to specific risks associated with a particular country or its currency. Because some of our infrastructure customers are newly formed companies, particularly in the wireless telecommunications area, we could also face infrastructure financing risks associated with a particular company. Additionally, vendor financing of projects such as GSM or UMTS wireless network equipment exposes us to credit risks. We also face a number of general risks in providing financing to our customers, including delayed payments from customers or difficulties in the collection of receivables, especially when we conduct business in emerging markets, in markets with economic difficulties, or in markets with a high number of start-up companies. We manage these risks through our enterprise-wide management emphasis on collecting receivables fully and timely. We further manage these credit risks using defined processes for assessing customer creditworthiness.

Market risk

Prudent financial market risk management is a key priority for Siemens. Our international operations, financing activities and investments expose us to financial market risks from changes in foreign currency exchange rates, interest rates and equity prices from our available-for sale securities in the ordinary course of business. Our objective for managing such risks is to capitalize on the opportunities available in the global market for our products and services while proactively managing the associated financial market risk. We seek to manage and control these risks primarily through our regular operating and financing activities, but when we deem it appropriate, to use derivative instruments.

Siemens has no material commodity price risk resulting from derivative instruments and the foreign exchange trading portfolio held by SFS is subject to tight limits and thus, as of September 30, 2004 was not material. In addition, SFS uses credit default swaps to protect against credit risks stemming from its receivable purchase business, which are reflected in our credit risk described above. Any market sensitive instruments, including equity and interest bearing securities, that our pension plan hold are not included in this quantitative and qualitative disclosure.

Interview Questions for a Research in the Use of Project Management Methodology in the Implementation of Strategic Objectives

I-7

Name	Lars O Gustafsson	Interview No.	
Position	Strategic Advisor	Date: 1 st April – 05	
Organization	Omantel		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts to attend to this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. Also, I am enrolled as a part time off-campus student in the PhD research programme at Heriot-Watt University, Edinburgh, Scotland. My research area is the Application of Project Management Methodology in the Implementation of Strategic Objectives (See attached letter please). As part of the fieldwork, I would appreciate your attention in answering the following six questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Describe, briefly, the operating business environment in terms of competition and critical success factors; and the organization structure?

The Omani telecom market is under quick development. It grows by around 15 % per year, primarily in mobile services but increasingly also in Internet / broadband services. The real demand may be even higher in the Internet / broadband as many customers have showed interest for these areas, but Omantel has had difficulties in delivering to demand.

Omantel is a telecom operator with the majority of its business in Oman. It is currently 100 % owned by the government, but with the stated intention of the government to reduce its ownership with 30 %.

The telecom market in Oman has recently been deregulated following an agreement with the WTO to liberalize the sector. Omantel has a fixed and a mobile license which allows it to offer a broad range of services.

Oman – as part of the Gulf region – has a high consumption of media delivered through satellites. This market is dominated by players such as Showtime, Firstnet, Orbit. Omantel as yet, is not present in this market.

Omantel currently faces competition in the mobile market – after a mobile license has been awarded to a competitor. Competition is also due to arrive in the fixed business during the course of 2005, subject to a decision by the Oman Telecom Regulatory Authority. Competition in the mobile market will intensify when a 3rd operator will be licensed after a two year grace period offered to the new mobile competitor.

The effect of the competition in the mobile business is still too early to assess as competition started 16th March 2005, when Nawras – a company owned by TDC (Tele Denmark) Qtel (Qatar Telecom) – formally launched their services.

In order to effectively meet competition in the mobile area, Omantel has separated its mobile business and organized it as part of a legal company named Oman Mobile, having its own brand, identity, management team and organizational structure.

Omantel is organized as a combined corporate center, business unit for the fixed business as well as support unit for Omantel as well as Oman Mobile business units.

For Omantel to be a viable player in the region on a medium to long term basis, it is critical to:

- Improve its customer focus, eg responsive to needs, attractive offers, easy to reach, delivers on time, resolves problems quickly
- Improve efficiency, eg implementing processes across the enterprises but with initial priority given to customer facing processes
- Grow the business, eg find ways and means to compensate for the inevitable loss of market share and revenues through entering adjacent services or geographical markets
- Develop skills and capabilities, eg marketing incl brand and product management, sales management, process management, project management, strategy formation, performance management
- Mindset and culture, eg replace government heritage and technical focus with a commercial mindset focused on customers
- Operating model to support objectives, eg clear, stable and effective distribution of roles and responsibilities in the enterprise

Question 2:

Explain, in detail, how corporate strategies are formulated in your organization, highlighting the roles and responsibilities of each stakeholder?

A change process has started, but I will describe my understanding of the previous approach and the intended new model (under formation).

Previously the corporate strategies were formulated in the Corporate Development team. The strategy was developed on a semi-annual basis and strictly as a Word document, ie with no clear connection to the financial projections for the enterprise. The document was presented to the top management / Board for a decision. Separately a business plan was developed by Finance department on an annual basis to set out the long term financial forecast. This was also presented to the Board for approval.

This planning framework has the following flaws that need to be remedied:

- Strategy is regarded as a document and not as a process
- Strategy development and Implementation is split into to distinct functions
- Strategy development is unrelated to the way financial projections are made
- Strategy development is not linked to performance management

Currently we are managing a process which intends to develop a corporate strategy, business plans, incl financials for Omantel's key businesses. The process also includes how functional plans will be developed. In this section I will describe how the strategy is developed.

Firstly, we have defined corporate strategy as vision, mission, values, objectives, priorities and strategic initiatives for the Omantel Group. We, ie Corporate Development, will develop this through a large scale workshop involving some 50-60 managers within Omantel and its subsidiary Oman Mobile. The preliminary corporate strategy that has resulted will be reviewed by the Executive Management before it is used as a basis for subsequent planning. We will most likely introduce the preliminary strategy to the Board of Directors prior to formally seeking its approval.

The preliminary strategic initiatives will be subject to one round of iteration to validate if these are the relevant initiatives to approve as part of the strategy. The intention is to conduct a follow-up workshop to review preliminary strategic initiatives in a context where also the current on-going initiatives as well as additional functional initiatives are presented.

The strategy process will naturally flow into the business planning process as described under next question.

I also envision that we on an on-going basis will need to visit and revisit strategic issues that are important for the development of the corporation. My suggestion would be to conduct quarterly meetings with Executive management teams of Omantel and Oman Mobile. The purpose of these meetings could be to review progress of current strategic initiatives as well as identify need for articulating and initiating additional initiatives. This would be an effort managed by Corporate Development unit.

Question 3:

Describe, in detail, the business planning process in your organization, highlighting the roles and responsibilities of each stakeholder?

The business planning would naturally follow the strategy process. It starts with a Planning Directive being issued by Corporate Development and Finance jointly.

Business / functional units would be asked to develop their respective plans based on some commonality of formats and deadlines. Business units would develop financials for their business, whereas Finance would take a lead role in developing financial implications based on the plans developed by Functional plans.

This year it is likely we will support functional units to develop their plans by supporting execution of facilitated 1-day workshops to establish skeletons of functional plans.

When the functional plans have been developed and the financial implications tested out, these will be consolidated into a business plan, including financials.

The Corporate business plan will be presented to the management team and eventually the Board for its approval. As Oman Mobile is organized as a separate legal entity, its business plan will be presented to its Board for approval. Our suggestion is that such an approval would come after the Corporate Strategy and Corporate Business plan has been approved.

Question 4:

What are the main processes/methodologies used in your organization to ensure the implementation of strategies?

Currently, there are no processes / methodologies used in the organization to ensure the implementation of strategies.

Through the process described above, we will ensure that the units / managers that are responsible for implementing has also developed the strategy, thus avoiding any unnecessary steps to sell-in the strategy to key stakeholders.

Still, some mechanisms are required and the following concepts are currently being discussed or are in a process of implementation.

Our intention is to set out a balanced score card at least for Omantel as a Corporate, the business units / Top executives.

Performance targets are to be established for organizational units through a cascading process on the basis of the overall balanced scorecards. These performance targets may or may not include all dimensions of a balanced scorecard.

In parallel, an initiative is underway to implement performance targets and development needs for individuals within Omantel established on the basis of a competency framework. It is not yet clear how the balanced scorecards / performance management systems will relate to each other.

The financial targets established as part of the strategy and business planning process will form an input for the budgeting process.

A review process for the performance management (beyond financial reviews) has still not been agreed.

Question 5:

Is Project Management concept used in your organization? If so, what is the maturity level? (0-30%; 30-60%; 60-100%). Also, what are the applications of project management?

I have no coverage of this question.

Question 6:

From your experience as an executive in this organization, what are the challenges faced during the execution of the strategies; and what are the ways to overcome such challenges?

I would like to first state there is a challenge in formulating a strategy that has a reasonable chance of being followed to be implemented as Omantel has limited skills in strategizing, understanding competition and lacks commercial mindset etc. However, this being said...

- Communicating the strategy, ie management needs to continuously communicate and live the strategy. It is only through the actions of the top managers that are seen within the organization that the employees understands what is really important (=strategy)
- Allowing a strategy to evolve, ie management needs to continuously review the environment, current initiatives etc to learn from external as well as internal changes
- Ownership of objectives / initiatives, ie it is absolutely vital that the strategy is set in a way that it could be translated into organizational responsibilities. The Balanced Scorecard is such a concept that makes it easy to translate strategy to organizational responsibilities. A performance management system linked to bonus is a complimentary system. However, we need to work out how these two systems should relate to each other.
- Clear mechanism to track execution, ie there needs to be formal reviews and clarity on how valid inputs for these session are aggregated as well as who organizes these sessions and takes action after these sessions have been concluded. This has not been clarified as of yet.
- Consequences in case of lack of execution, ie there needs to be known culture of consequences if there is repeated slippage in timelines. As Oman society is not a hire-and-fire society other mechanisms needs to be introduced. A system of bonuses is a step in the right direction.

Appendix-5

Comments from the review
experts

Interview Format

Name	Peter W. G. Rashid	Interview No.	(1)
Position	Professor of Project Management	Date:	18 February 05
Organization	University College London		

Objective of Interview:

The main objective is to obtain an opinion from the interviewee on the Enterprise Project Management Model (EPM) as to the usefulness of the model in executing strategies.

Main Points from Interview :

Rashid's model is cogent and soundly based on the literature. I would like to see how it, or variations of it, might be applied in different organizations, and how any variations could be explained in terms of the literature.

Implications for the Model:

Very sound. Its application in practice should be investigated.

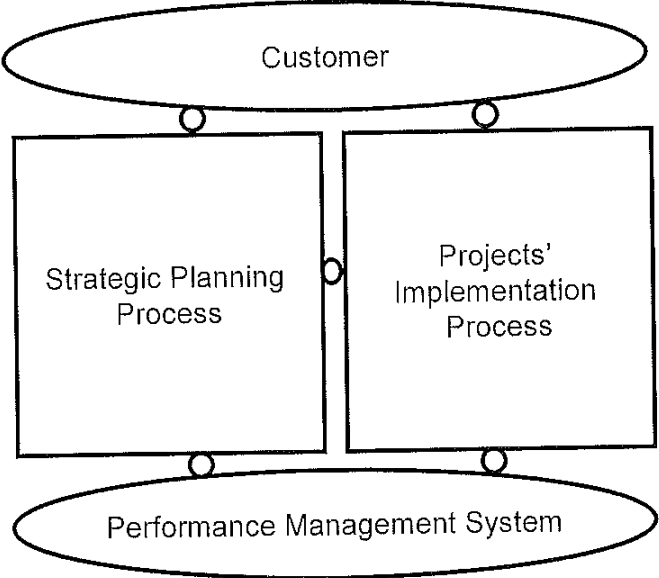
Enterprise Project Management Model- *Draft*

By:
Rashid Ali Al-Balushi

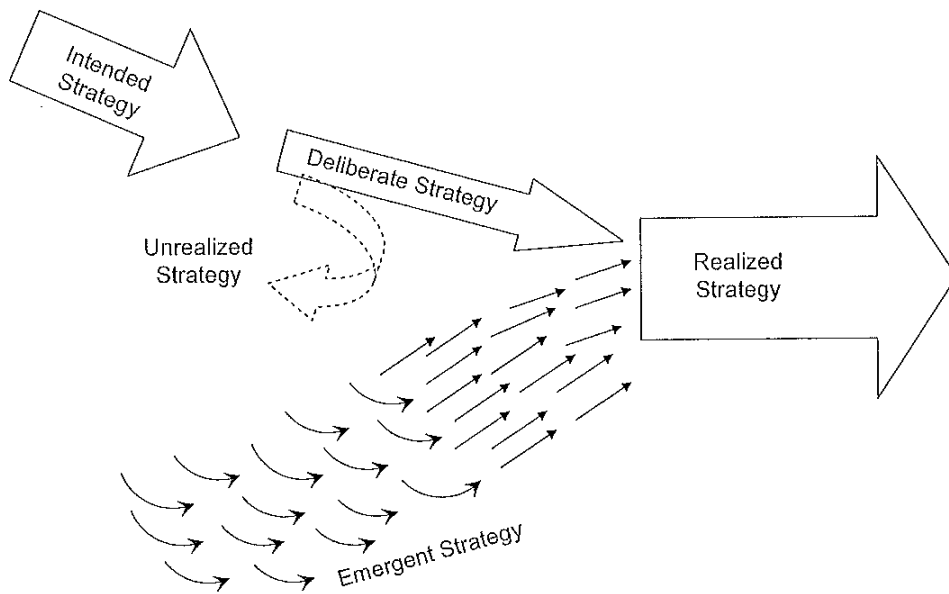
Introduction

- The model is based on two concepts:
 1. the focal point for strategic directions is the customer, the model links strategic planning process with project implementation process. The point of link is projects, and controlled by performance management system.
 2. intended strategies are those planned in the regular planning cycle, which lead to deliberate strategies , but the emergent strategies are those which appear during the execution phase of the intended strategies, and need to be taken into account. Also, emergent strategies are the most important ones in the telecommunication industry due to the fast changes in the technology cycle.

Basic Concept-1



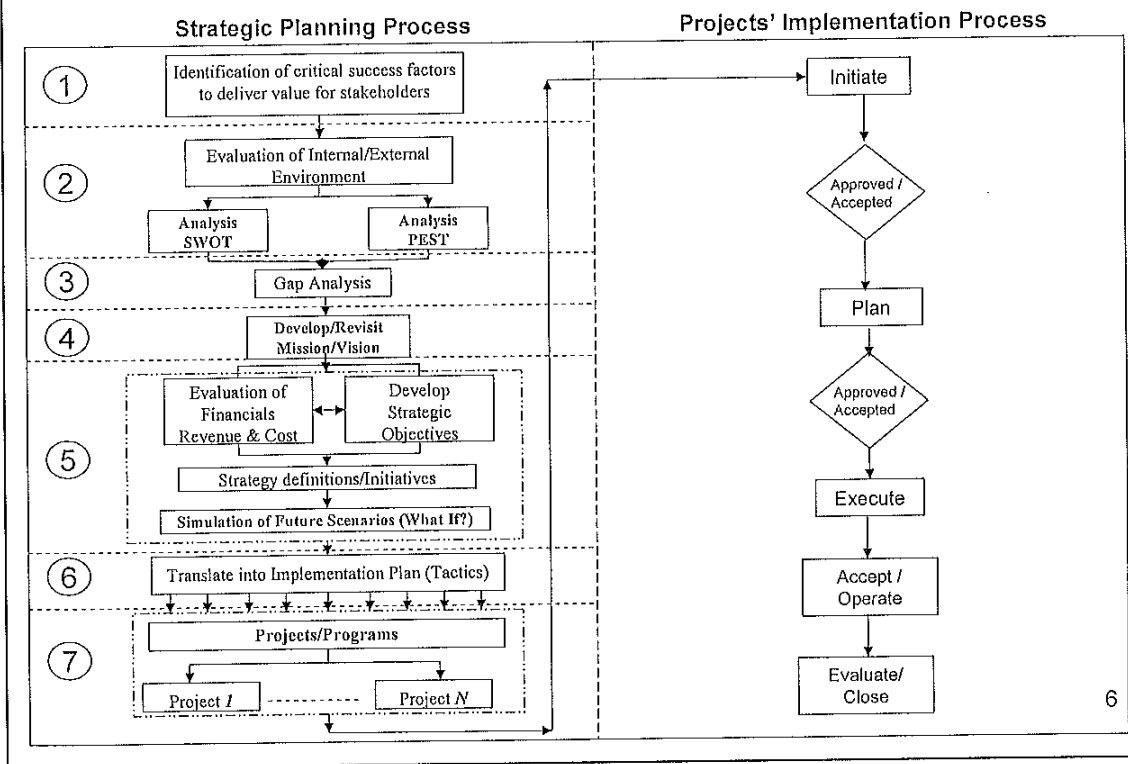
Basic Concept-2 (Emergent and Deliberate Strategy)



The EPM Model

- Step-1: defines the critical success factors for all major stakeholders of the business.
- Step-2: evaluates the external & internal business environment through the use of SWOT & PEST techniques.
- Step-3: assesses the gap between the existing & the intended situations of the business.
- Step-4: seeks to revisit the existing mission/vision/strategic objectives to create best value for stakeholders.
- Step-5: the new strategic objectives will be reviewed against the financials to assess them economically, also they will be tested in a control environment utilizing "Scenario Planning" technique. This step is powerful one as it provides risk mitigation policies and comfort during implementation phase.
- Step-6: the corrected or the updated strategic objectives will be translated into initiatives by each functional plan. Then each initiative will be further translated into programs and projects.
- Step-7: to ensure successful implementation, each program will be divided into projects. this step is the last in the business planning process and forms the inputs of the project implementation process, where each project will go through a generic five step process controlled by gates to ensure proper execution.

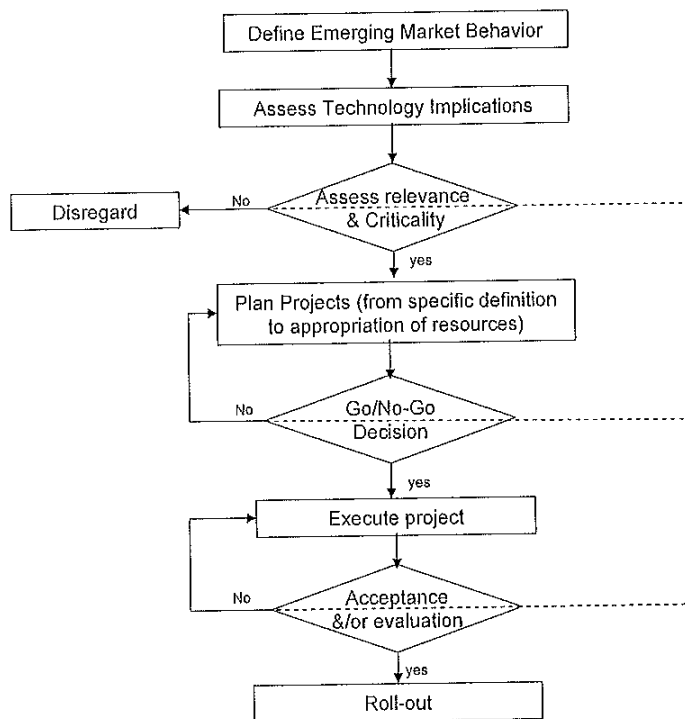
The Enterprise Project Management, EPM Model



Emergent Strategies

- The Emergent strategies are triggered by the customer or market behaviour, through service need statement. Then, the service need statement is translated into technology solution. After that, it will be assessed for its relevance with (intended strategic plans) and its criticality to the business, if found satisfactory, will go through the remaining of the projects' implementation process.

Emergent Strategies- Telecom Based



Name	Lars O Gustafsson	Interview No.	2
Position	Strategic Advisor		
Organization	Omantel		

Objective of Interview:

The main objective is to obtain an opinion from the interviewee on the Enterprise Project Management Model (EPM) as to the usefulness of the model in executing strategies.

Main Points from Interview :

The scope of the model – as I understand it - is execution of customer-focused deliberate as well as emergent strategies. The model contains four key components, ie customer, strategic planning process, project implementation as well as a performance management system. Two alternative process overviews are provided for the strategic planning process and project implementation, incl the linkages. If the first one reflects how deliberate strategies can be established, the latter illustrates how emergent strategies may be controlled.

The merits of the model

- The model takes the customer as a starting point and I believe there are several ways companies could improve by linking their strategies and plans to what customers need and are willing to pay for.
- The model positions the strategy process as the key driver in setting priorities and leading (not following) execution.
- The model is resilient to the fact that strategies evolve as customer needs are revealed, technologies emerge, competitor make their moves etc
- The model introduces performance management system as a way to control execution of the strategies
- The model contains a concise statement of strategic planning and project implementation process
- The model contains a Toll Gate project model which many companies have successfully embraced

Areas for further thought / development:

- Strategy development is at the same time an on-going process within companies (which reflects the description of the emergent strategy) but can also be a broader exercise to review overall strategy as well as the organization (typically referred to as intended strategies). The methods / tools used in strategic planning depends on what tasks are important to fulfill. Some methods are commonly used, eg SWOT analysis, customer analysis, financial analysis, brainstorming etc and some are used with less frequency, eg scenario planning, war games, ideation processes etc. Each time a company decides to execute an (intended) strategy process, it needs to establish which are the key objectives for the process and select the tools and the involvement to meet these objectives.
- On-going strategy / business development typically is difficult to control. Some scholars are suggesting that it needs to be stimulated and supported by top management by putting in place

Laq

an enticing vision, challenging objectives and a supportive / learning culture. My own experience is that business innovation typically takes place outside the larger organizational structures / processes and in environments where experimentation is allowed but capital is rationalized. Business development is typically not described as part of strategic planning process, but it is anyhow important to recognize as a cornerstone in preparing for the future.

- There are several means to ensure that a strategy can be executed. One model to illustrate this is the 7S (strategy, structure, systems, skills etc). Project and performance management are two complimentary systems to support execution of a strategy, but they can do not replace the need to have a structure, skills and other systems in place (eg IT and processes) that are conducive to the execution of a strategy. In the suggested model, I think these contextual factors need to be included in one way or another.
- The model emphasizes projects and programs as the driver to execute a strategy. In many situations, however, the line organization is seen to lead the execution of the strategy. Indeed, if a major change is required, typically, the organizational structure is adjusted in order to be able to lead the execution of the strategy. The plans for organizational units, be it business units or functional units, are vital in order to establish which are the objectives, projects and activities that are critical to execute the strategy. This may already be captured in "Translate into Implementation plans" or alternatively it may be expanded into a description of business / functional planning.
- The performance management system is described as a means to control the execution of projects. I think performance management may be even broader, ie controlling the implementation of strategies through organizational units (through a balanced score card approach), individuals (through performance targets and reviews) and projects (through project reviews). I think it is a good idea to develop a performance management system that has a level of commonality for organizational units, individuals and projects while recognizing that the need and means to control the performance of these different "objects" are quite different.
- The scope of the model seems broader than the name that has been given, ie Enterprise Project Management vs Enterprise Planning and Execution. The merit of addressing the broader is that it addresses a need to build integrated planning processes within companies. The merit of addressing a more narrow area is . . .

Implications for the Model :

Integrated process for strategy development and execution . . .



14/2-05

TO Rashid Al Balushi
FROM Karim Sabbagh
SUBJECT Input on Research

DATE February 8, 2005
CITY Muscat

(3)

Dear Rashid:


This documents the inputs on the 'Basic Concept' paper you shared with me on February 8, 2005. As I understand it, the paper seeks to identify the mechanism through which strategic planning and performance management can be better linked through an integrated project implementation process.

My inputs on the paper are as follows:

- Page-3: The strategic planning process must integrate a financial forecasting module that yields the medium term financial plan. The output would reflect the strategies and initiatives stemming from the strategic plan. This module would run in parallel, and in an iterative manner, with the stage dealing with the development of strategic objectives
- Page-3: The formulation of strategic objectives should be carried down, explicitly, to the level of strategies definition and initiatives. This could be validated further through a strategy mapping exercise to ensure that all the objectives are adequately supported in terms of strategic roadmap, and that accountabilities are clarified
- Page-4: The capture and processing of emerging strategies could be revised to reflect the following flow:
 - Step a: Define emerging market behavior (activity)
 - Step b: Assess technology implications (activity)
 - Step c: Assess relevance and criticality (decision point)
 - Step d: Plan projects (from specs definition to appropriation of resources)
 - Step e: Go/No-Go decision (decision point)
 - Step f: Execute project (activity)
 - Step g: Acceptance and/or evaluation (decision point)
 - Step h: Roll-out (activity)

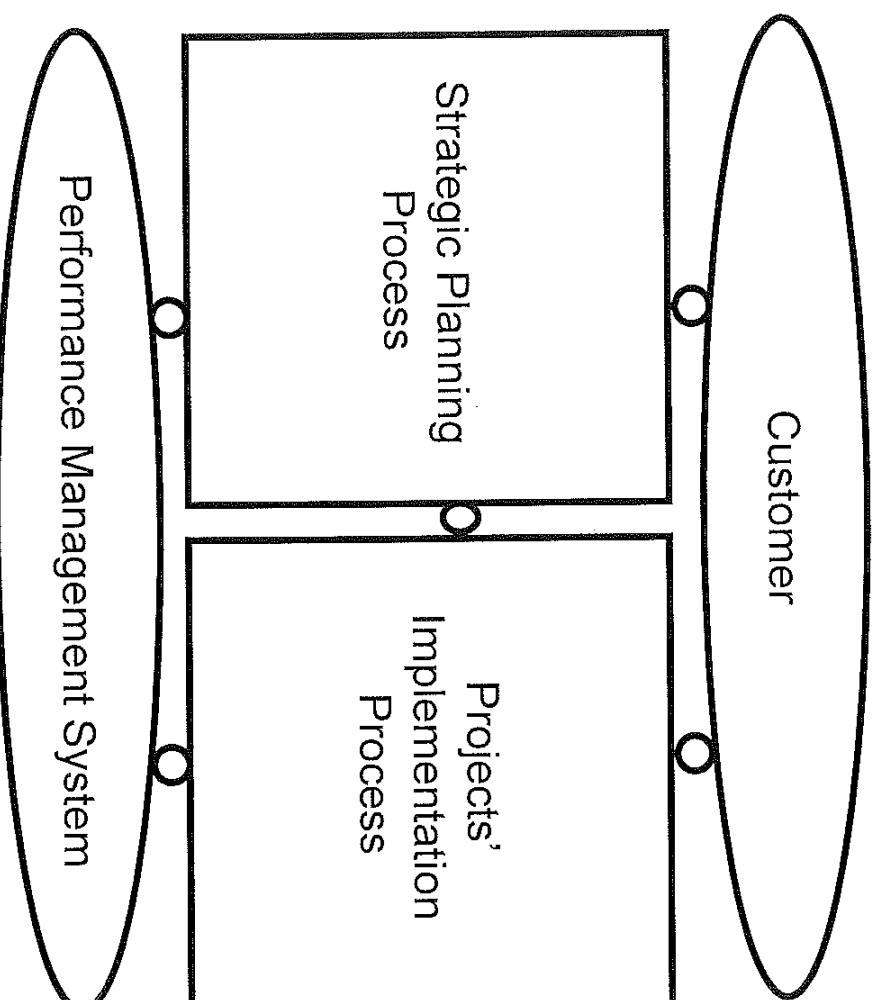
I will be glad to discuss further.

Sincerely,

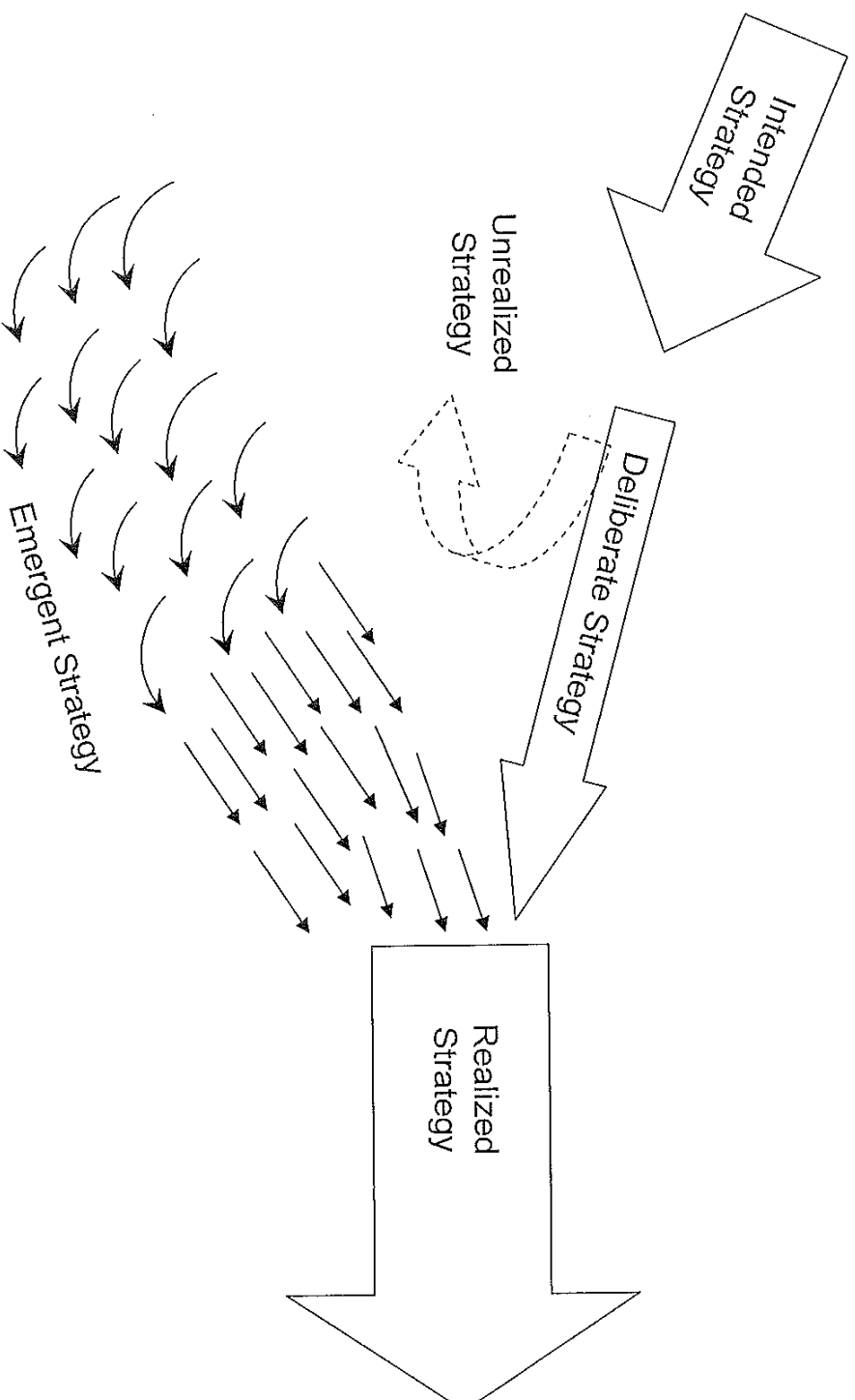


Karim Sabbagh
Vice President

Basic Concept



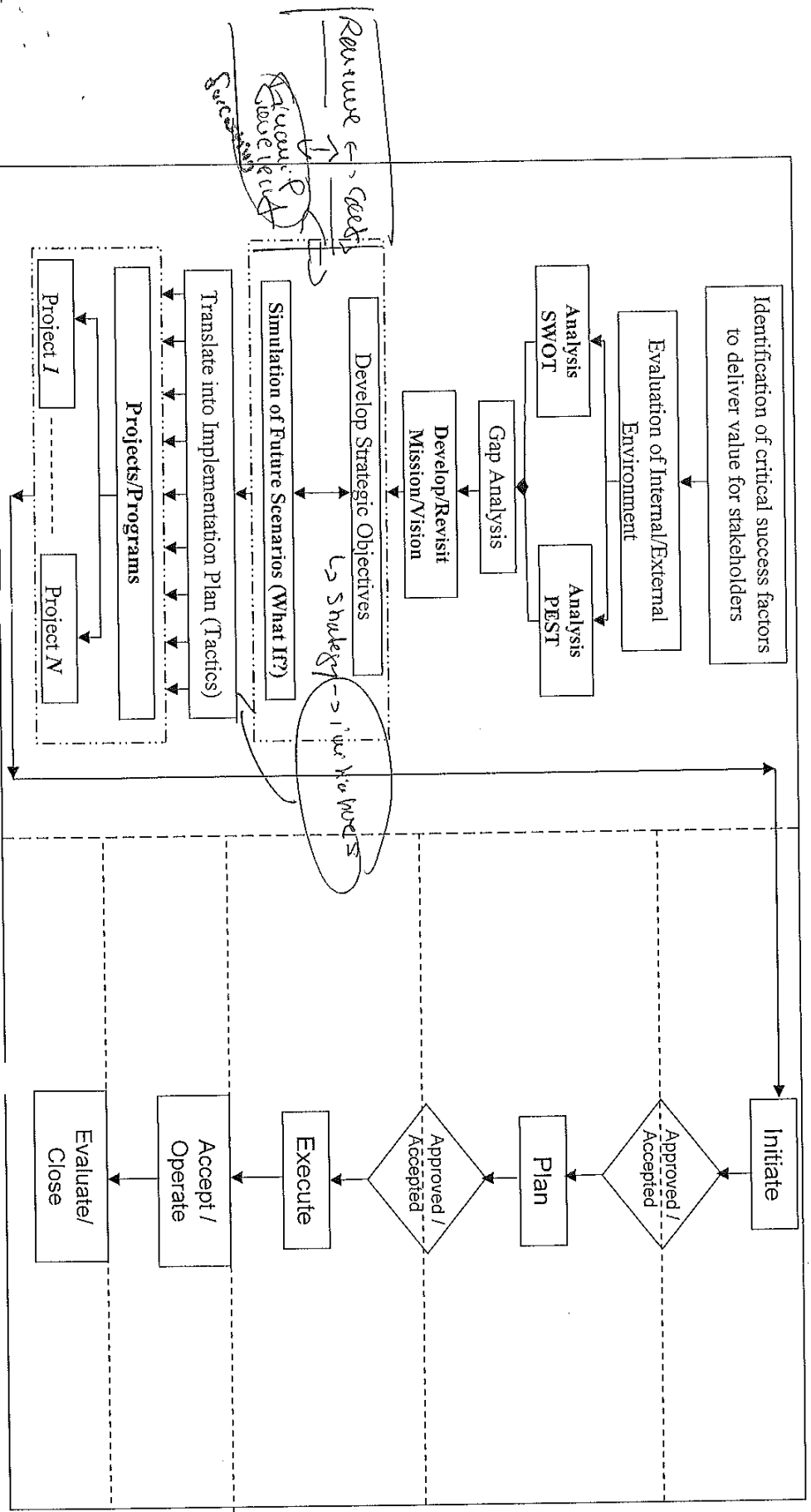
Emergent and Deliberate Strategy



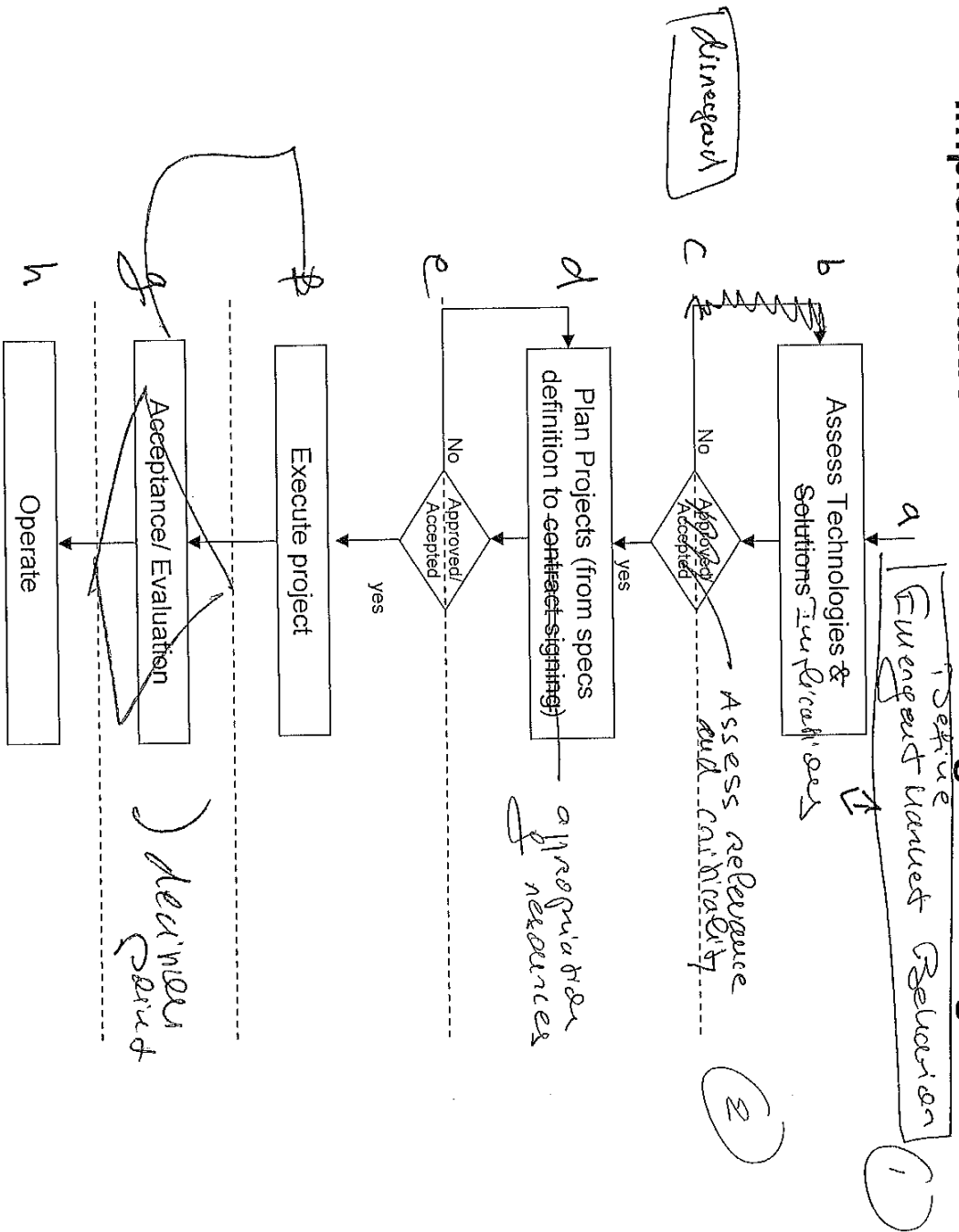
Business Planning Through EPM Processes

Strategic Planning Process

Projects' Implementation Process

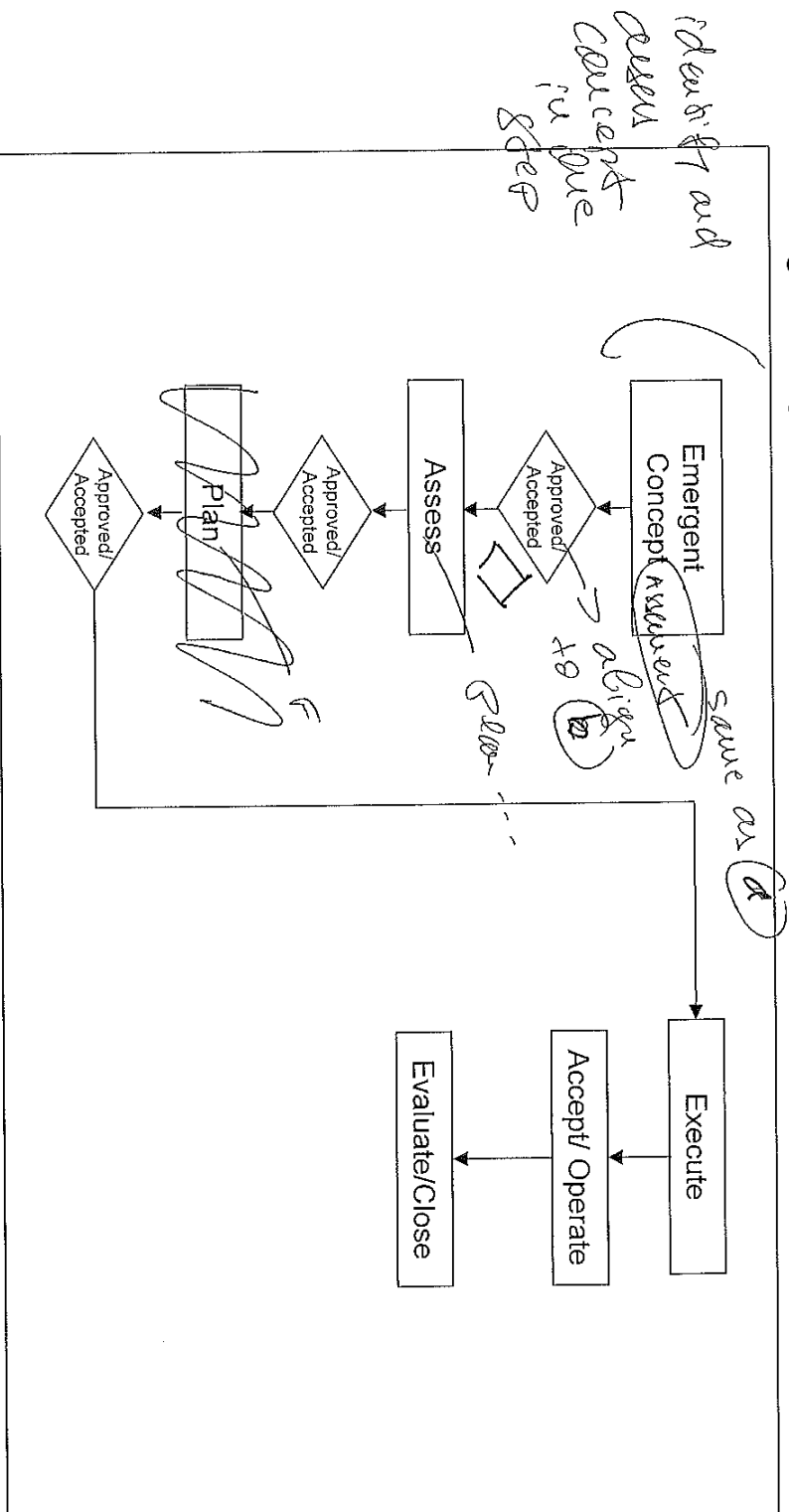


Implementation Phase & Emergent Strategies



Emergent Strategies

At any point of time during the Strategic Planning Process (Strategic Planning Phase or Implementation Phase), emerging strategies will go through this cycle



Appendix-6

Omantel strategic workshop

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



Ref: Omantel / EP / DHCD /1 / TA/ 1237 /2005

Date: Tuesday, the 29th March, 2005.

M/s Booz Allen Hamilton
PO Box 500239, Dubai, UAE.
Fax: 009714-3908559

ATTN: MR. KARIM SABBAGH, VICE PRESIDENT

After Compliments

Sub: CONDUCTING OF 'STRATEGIC WORK SHOP' AT HOTEL SHERATON FOR OMANTEL

Reference to the above mentioned subject, we are pleased to accept your offer for conducting the said workshop at Hotel Sheraton from 4th -5th April, 2005, as scheduled. To facilitate smooth conducting of the workshop, we have formed a team from Omantel headed by Mr. Rashid bin Ali Ibrahim Al Balushi, Division Head, Corporate Development, with the following team members:

1. Lars O. Gustafsson, Strategic Adviser
2. Osama Bakir, Manager, Support & Processes

The above team will work jointly with your team to make the event a highly successful.

We look forward to your co-operation in making the workshop a grand success.

Best Regards ,


HASSAN BIN AHMED ASHRAF AL ZADJALI
TECHNICAL ADVISER

CC: DH- CORPORATE DEVELOPMENT

h/Admn



Omantel Strategy Workshop

Oman
April, 2005

This document is confidential and is intended solely for the use and information of the client to whom it is addressed.



SWOT Analysis Dimensions

1. Financials
2. Market Facing
3. Internal Business Processes
4. Strategic Resources

1. Financials

- 4 Growth agenda
- 4 Operational efficiency
- 4 Investment efficiency
- 4 Financial transparency and risk management

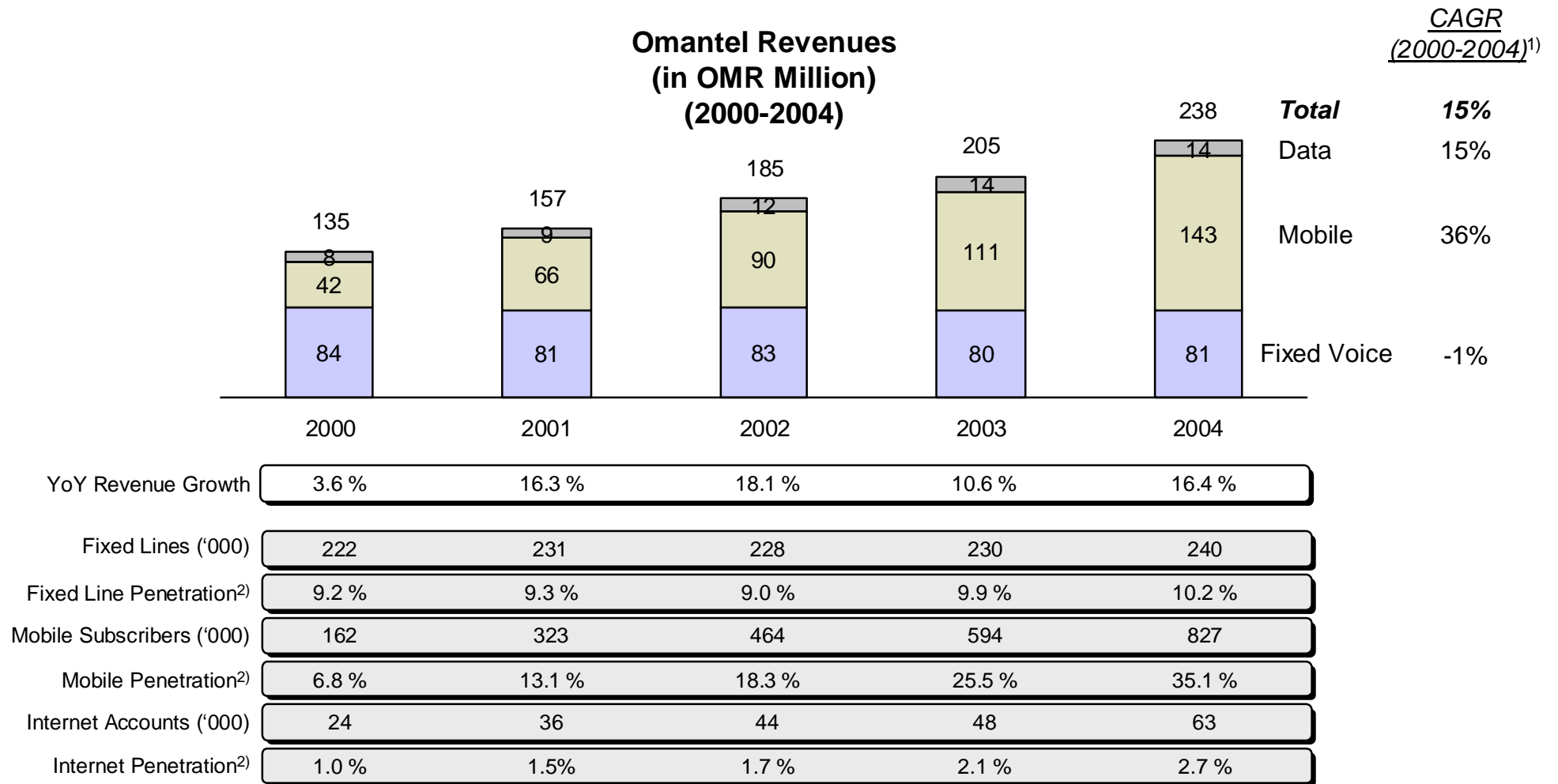
We will provide supporting material for Financials along the four sub-dimensions of the SWOT framework

1 Financials Sub-dimension

Growth agenda	<ul style="list-style-type: none">4 Overall market growth per line of business4 Overall Omantel revenue development per line of business4 Comparison with international benchmarks
Operational efficiency	<ul style="list-style-type: none">4 EBITDA margin, Opex-Ratio and profit margin4 Comparison with international benchmarks
Investment efficiency	<ul style="list-style-type: none">4 Asset utilization4 EFCF/Revenue and CAPEX/Revenue ratio4 Comparison with international benchmarks
Financial transparency and risk management	<ul style="list-style-type: none">4 Information on accounting separation and risk management approach



Omantel has achieved sustained growth over the past five years – with Mobile as the main growth driver



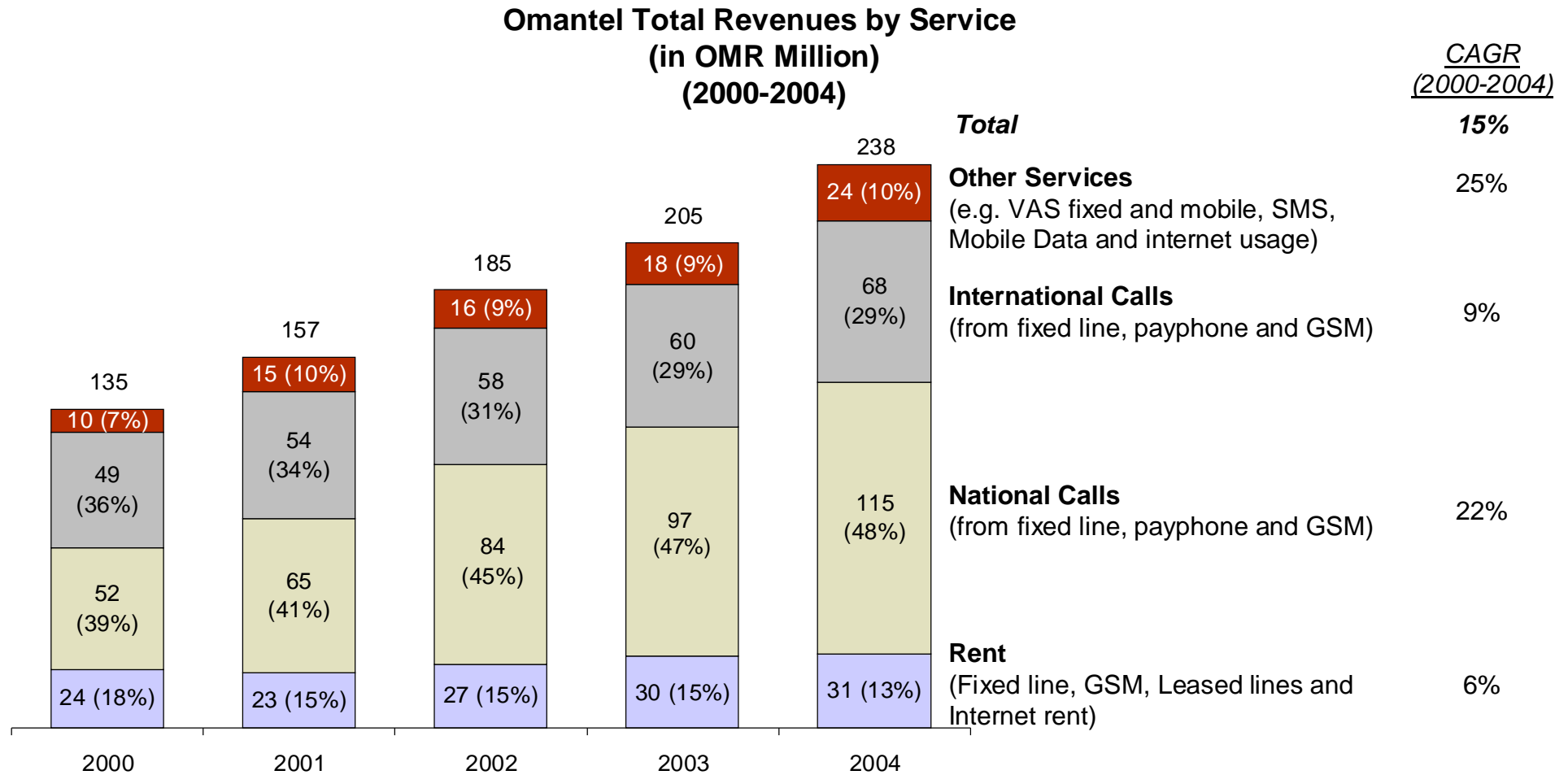
(1) CAGR is the Compound Annual Growth Rate

(2) Fixed Line Penetration = Fixed Lines / Population; Mobile Penetration = Mobile Lines / Population; Internet Penetration = Internet Accounts / Population

Sources: Omantel Budget 2005; Omantel Business Plan Dec 2004; Annual reports; Booz Allen analysis



The split by service for Omantel (incl. Oman Mobile) shows the importance and growth rates of different revenue levers

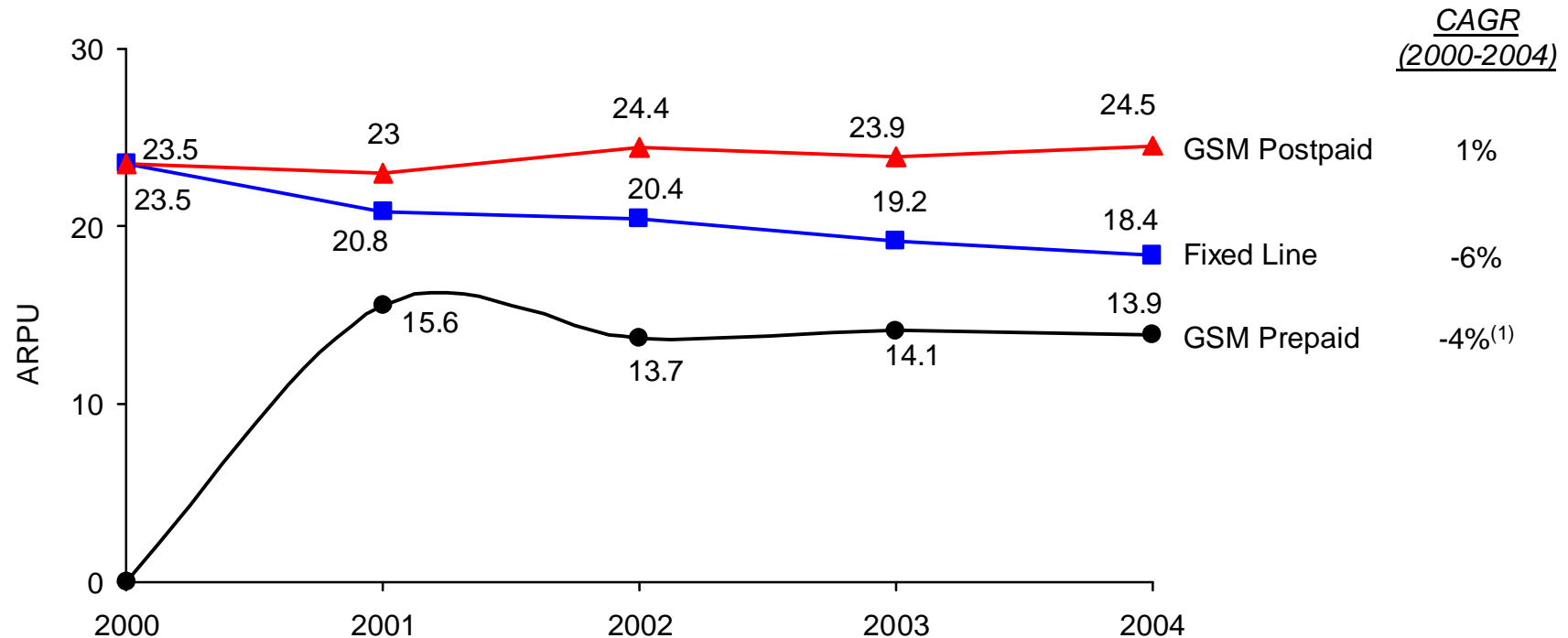


Sources: Omantel Budget 2005; Omantel Business Plan Dec 2004; Booz Allen analysis



GSM monthly ARPU has remained stable over the last years, whereas fixed line ARPU has constantly declined

**Omantel – Monthly ARPU Evolution
GSM Postpaid / Pre-Paid and Fixed Line (in OMR)
(2000 – 2004)**



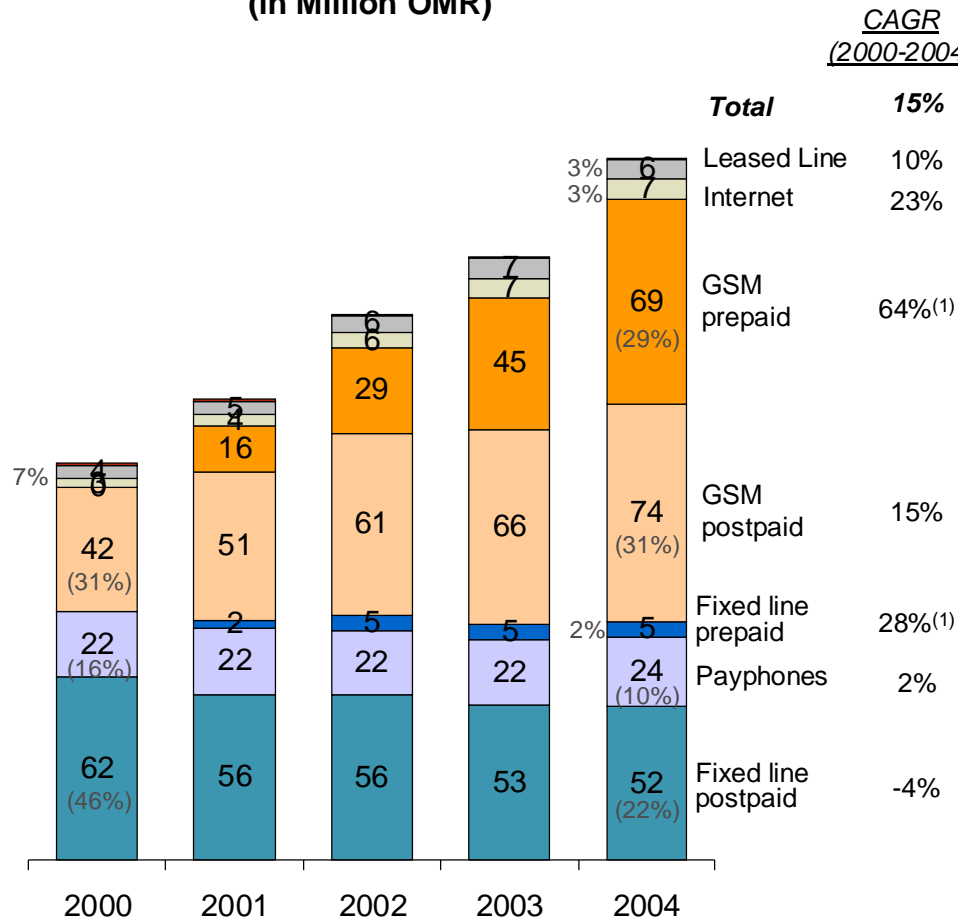
(1) 2001-2004 CAGR

Sources: Omantel Budget 2005; Booz Allen analysis

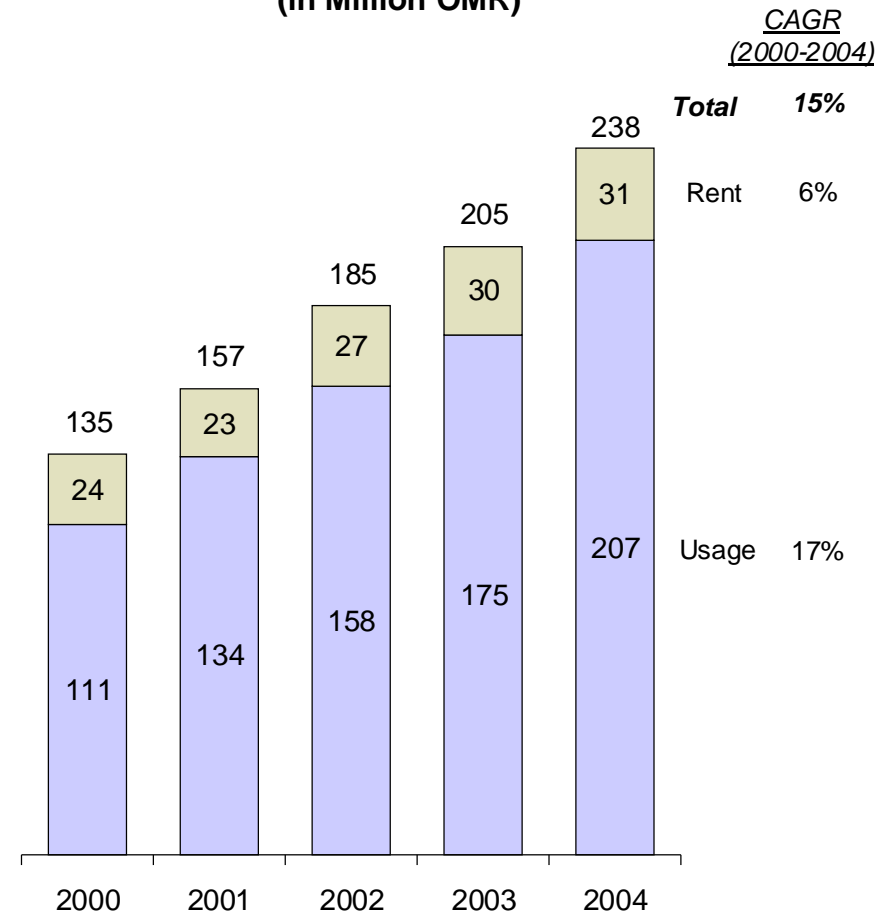


In summary, Omantel's revenues from GSM account for ~60% of total in 2004 and are mostly generated from usage (87%)

Omantel Revenues (2000 – 2004)
(in Million OMR)



Omantel Revenues (2000 – 2004)
(in Million OMR)



(1) 2001-2004 CAGR

Source: Omantel Budget 2005; Annual planning Dec 2004; Booz Allen analysis

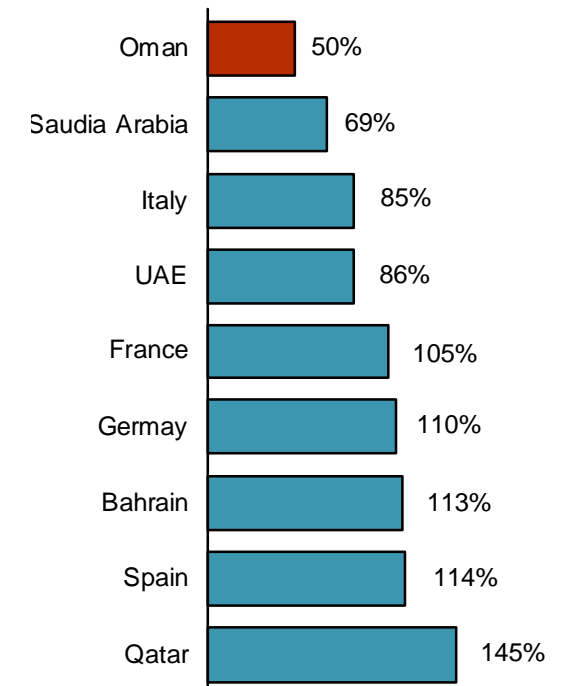
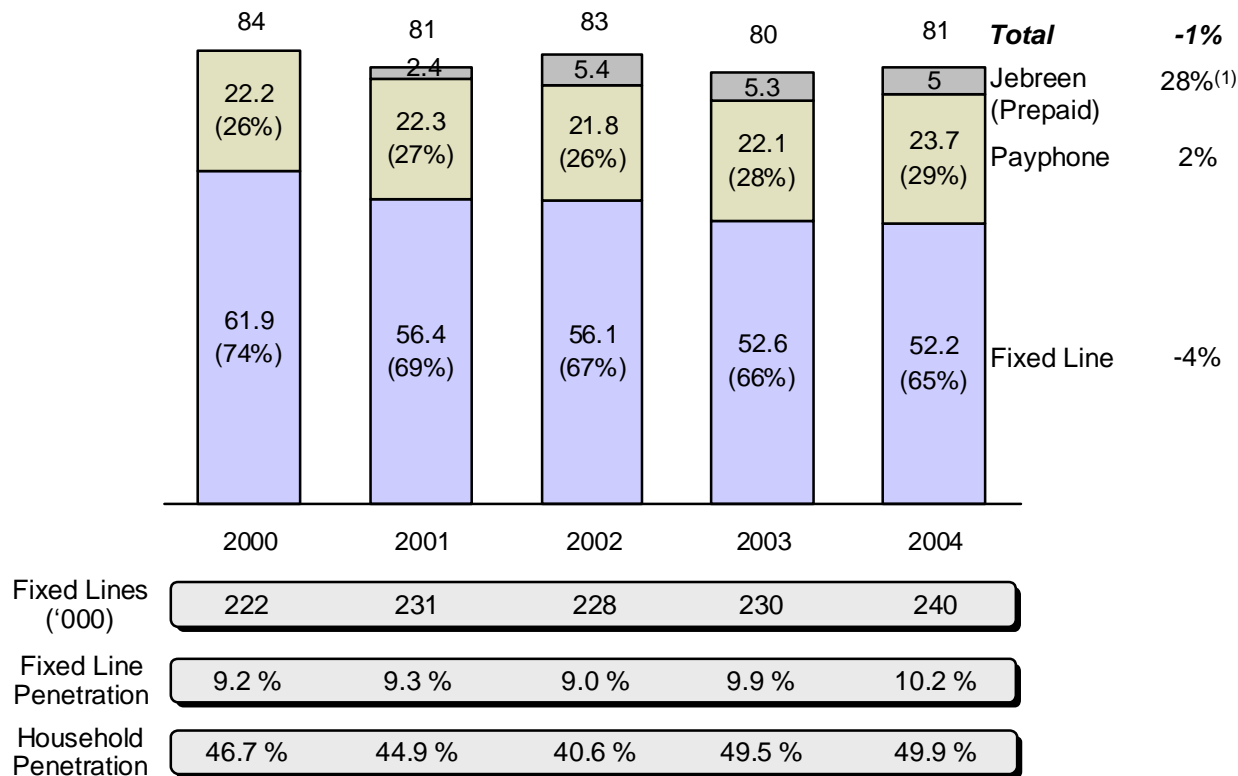


Fixed telephony revenues have slightly decreased over the past years and penetration is still low compared to benchmarks

Omantel Fixed Telephony Revenues
(in OMR Million)
(2000 – 2004)

CAGR
(2000-2004)

Residential Household Penetration 2004
(in % of Households)



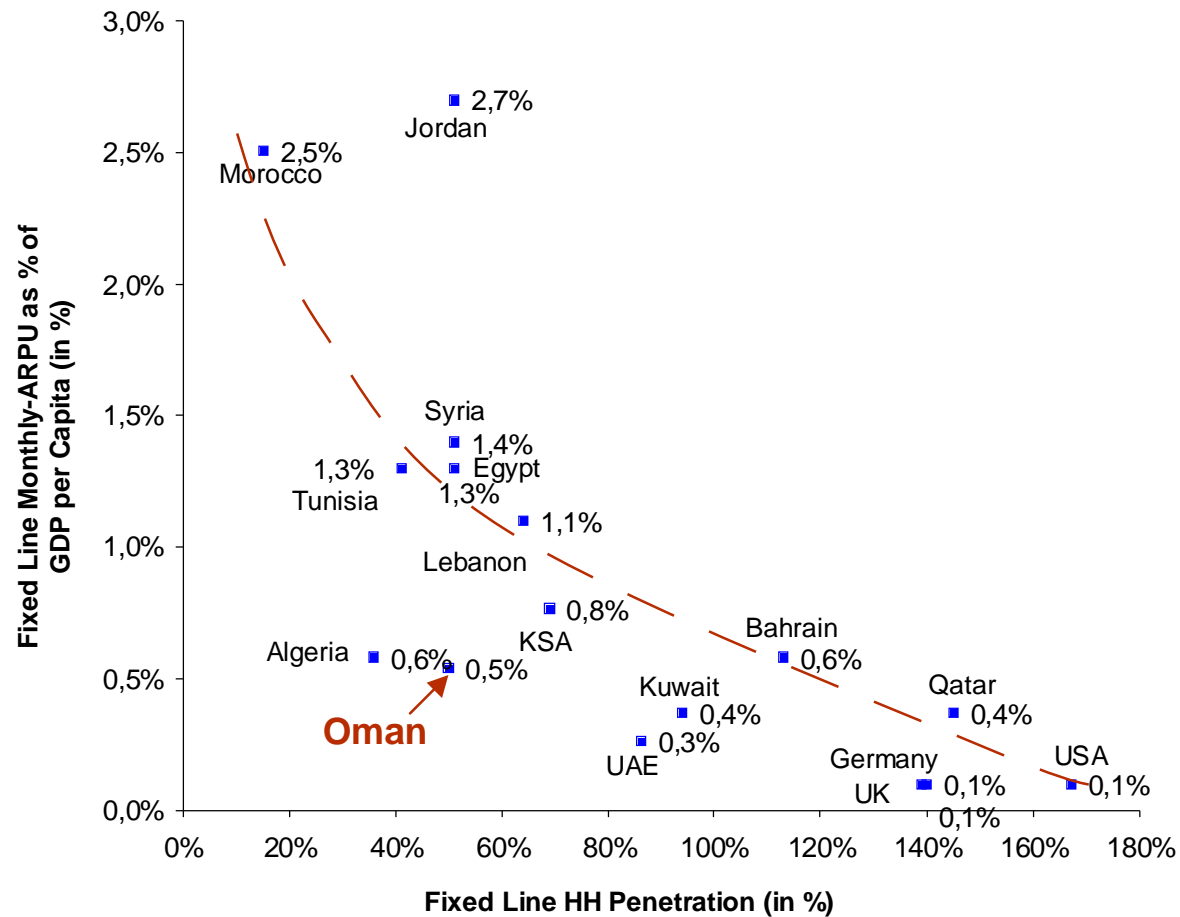
(1) 2001-2004 CAGR

Sources: Omantel Budget 2005; Informa Fixed Line Database; Arab Advisors Group; ITU Database, Booz Allen analysis



Compared to other countries with similar household penetration, fixed line ARPUs are low in relation to the purchasing power of Oman

Fixed Line ARPUs as % of GDP vs. HH Penetration (2003/2004) – Selected Countries



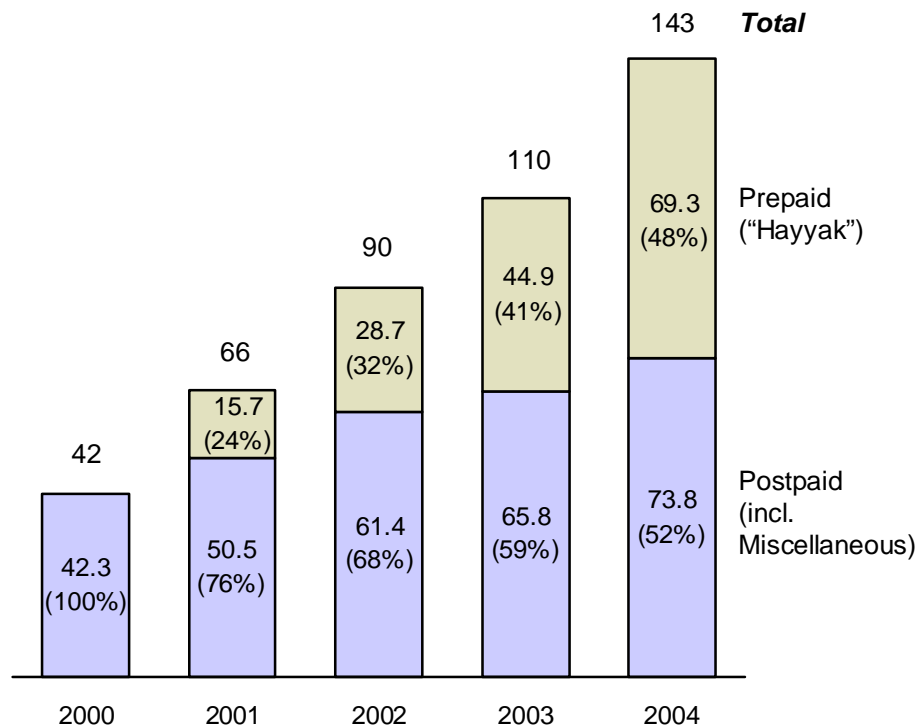
(1) Assuming a ratio of 78% to 82% of residential lines

Source: AAG, Budget 2005; Annual planning Dec 2004; Arab Advisors Group 2004



Omantel's mobile services have been growing steadily, although penetration level is still low relative to other countries

Omantel Mobile Revenues (in OMR Million)



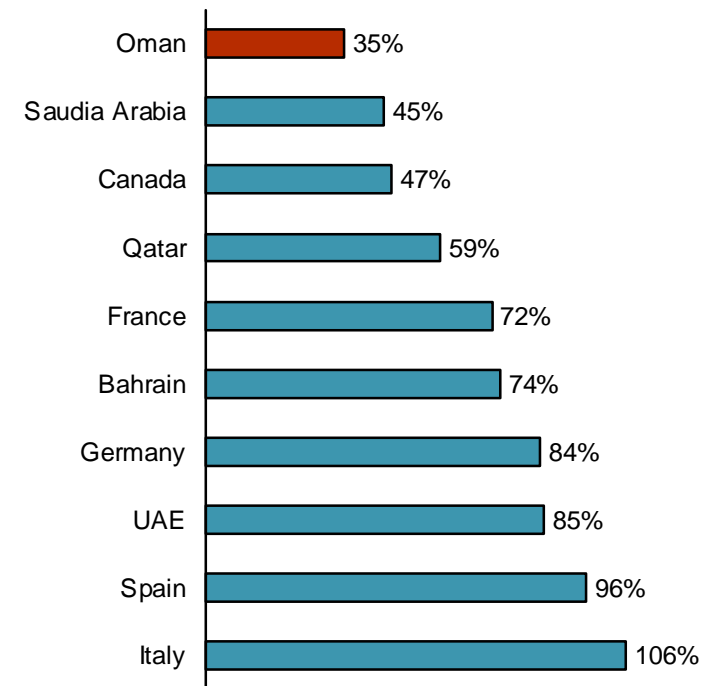
CAGR (2000-2004)

36%

64%⁽¹⁾

15%

Mobile Penetration 2004 (in % of Total Population)



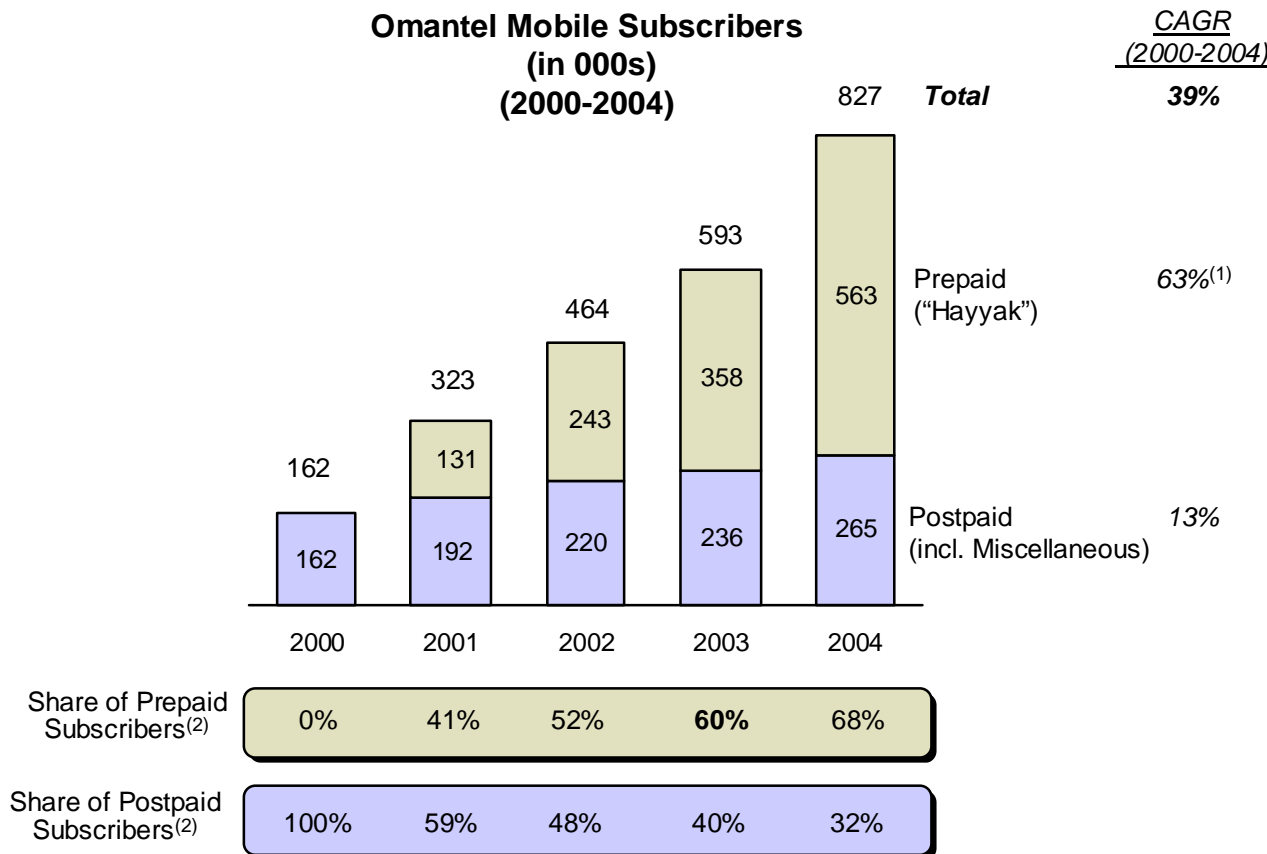
Total Mobile Penetration	2000	2001	2002	2003	2004
	7 %	13 %	18 %	26 %	35 %

(1) 2001-2004 CAGR

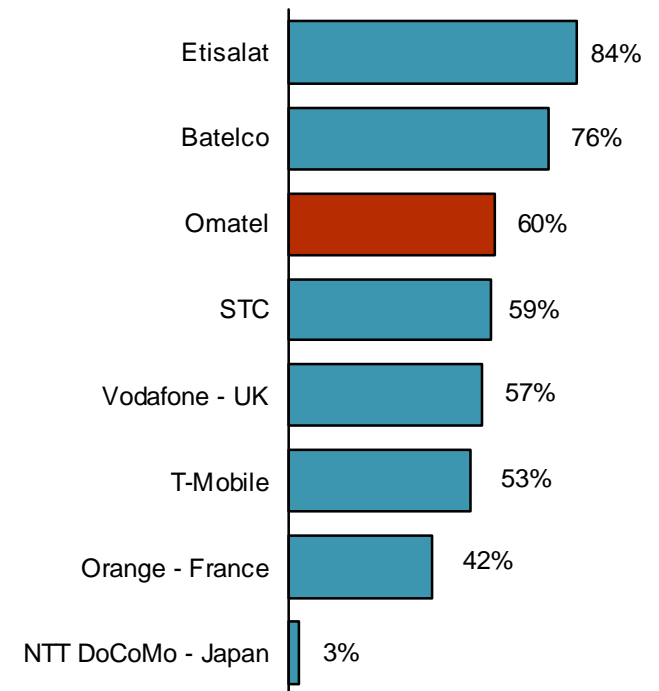
Sources: Omantel Budget 2005; Arab Advisors Group; Merrill Lynch; ITU Database; Booz Allen analysis



In 2004, 68% of Oman Mobile subscribers are prepaid, which is in line to benchmarks



2003 Peer Prepaid Subscribers (in %)



(1) 2001-2004 CAGR

(2) Subscribers at year end

Sources: Omantel Budget 2005; Arab Advisors Group; Merrill Lynch; ITU Database; Booz Allen analysis



Prepaid subscribers are more vulnerable to churn

Prepaid vs. Post Paid Churn

	Advantages	Disadvantages
Postpaid	<ul style="list-style-type: none"> 4 Easier to target and segment (e.g., through billing) by the incumbent 4 Harder and more cumbersome to switch, especially if number portability is not introduced 4 Generally higher ARPU and lifetime value 	<ul style="list-style-type: none"> 4 Risk of bad debt and late payments: <ul style="list-style-type: none"> – In 2003, around 5% of Postpaid subscribers were disconnected due to non payment
Prepaid	<ul style="list-style-type: none"> 4 Lower cost to serve 4 No financial risk as customer pays in advance for service 	<ul style="list-style-type: none"> 4 Easily switch to competitors as termination is cost-free 4 No commitment, and lower lifetime value 4 Harder to monitor usage and segment

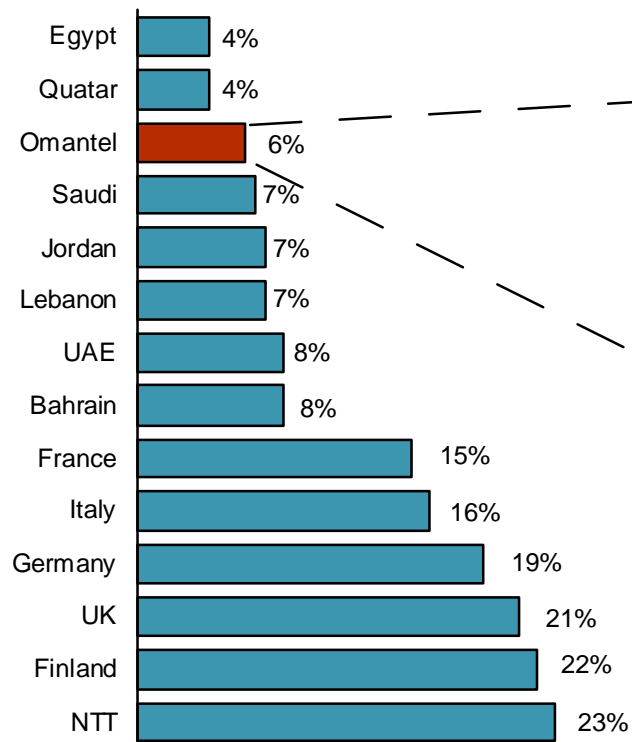


Omantel needs to better segment its customer base to realize the right balance of Prepaid and Postpaid subscribers

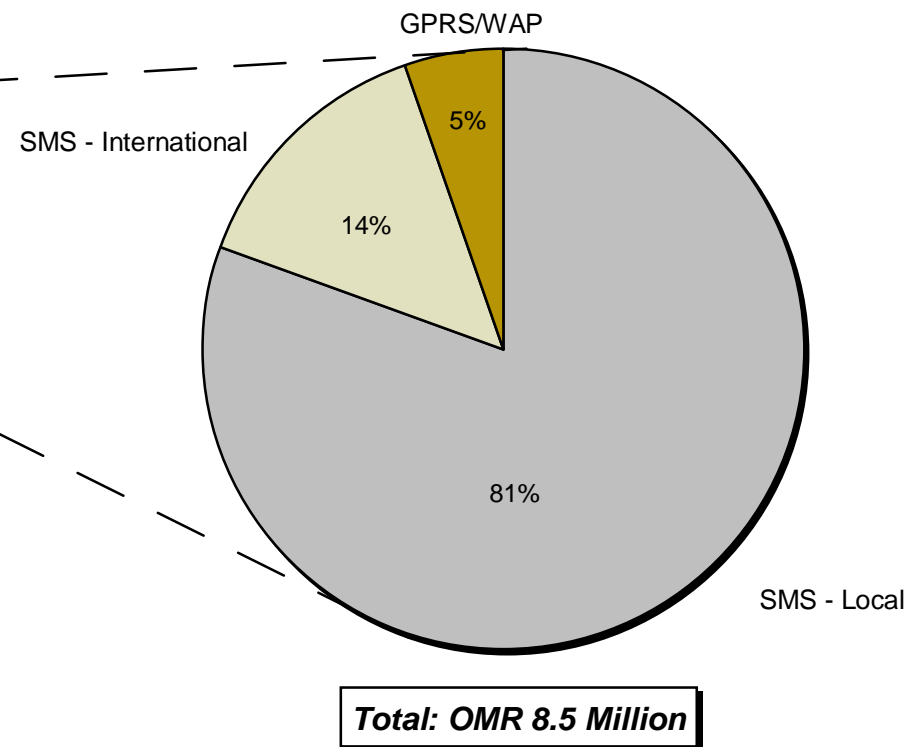


Omantel's Mobile Data share of ARPU is low compared to European operators

**Selected Operators' Mobile Data Share of ARPU(*)
(2004) (in % of Total ARPU)**



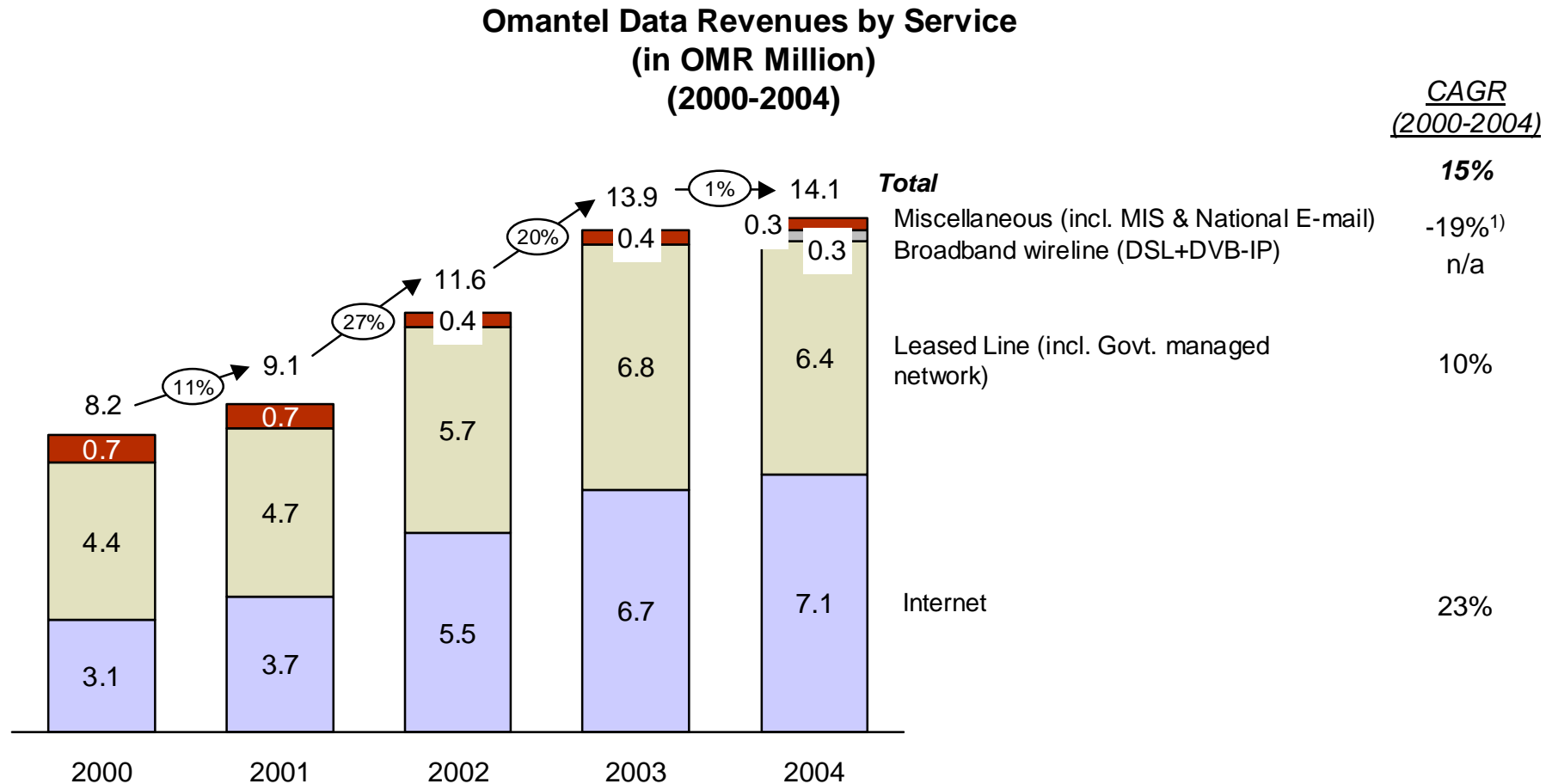
**Oman Mobile Data Revenues Breakdown
(2004) (in % of Total Mobile Data Revenues)**



(*) Gross revenues; content owner share from premium SMS not discounted
Sources: IDC Western Europe Mobile Data 2003/2004; Booz Allen analysis



Omantel Fixed Data revenues have been growing at a relatively slow pace of 15% per annum



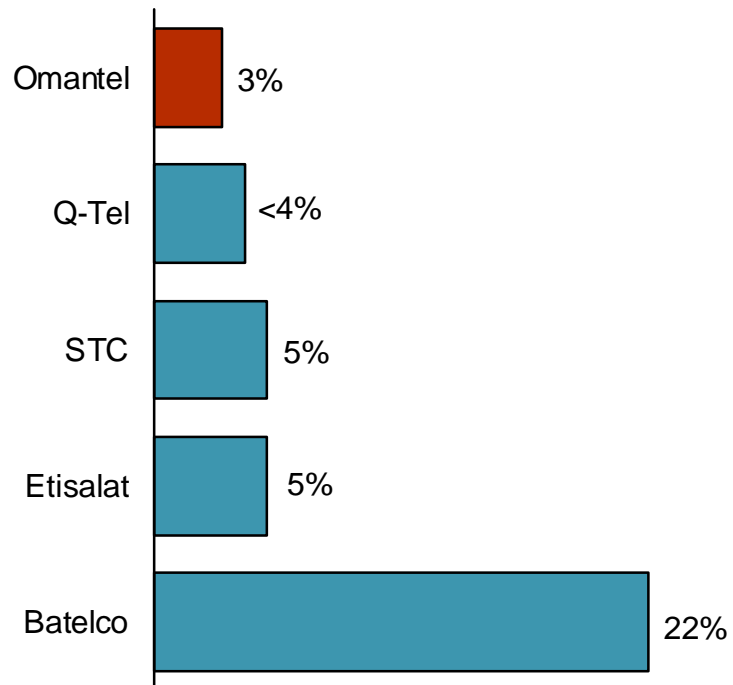
(1) Decrease in Miscellaneous mainly due to different accounting allocation
Sources: Omantel Budget 2005; Booz Allen analysis



However, Omantel’s Data Services share of revenues (excl. Internet services) is still low compared to e.g. Batelco...

Data Services Regional Benchmarks

Estimated Share of Data Services (excl. Internet Business) of Total Revenues (incl. GSM) (2004) (in % of Revenues)

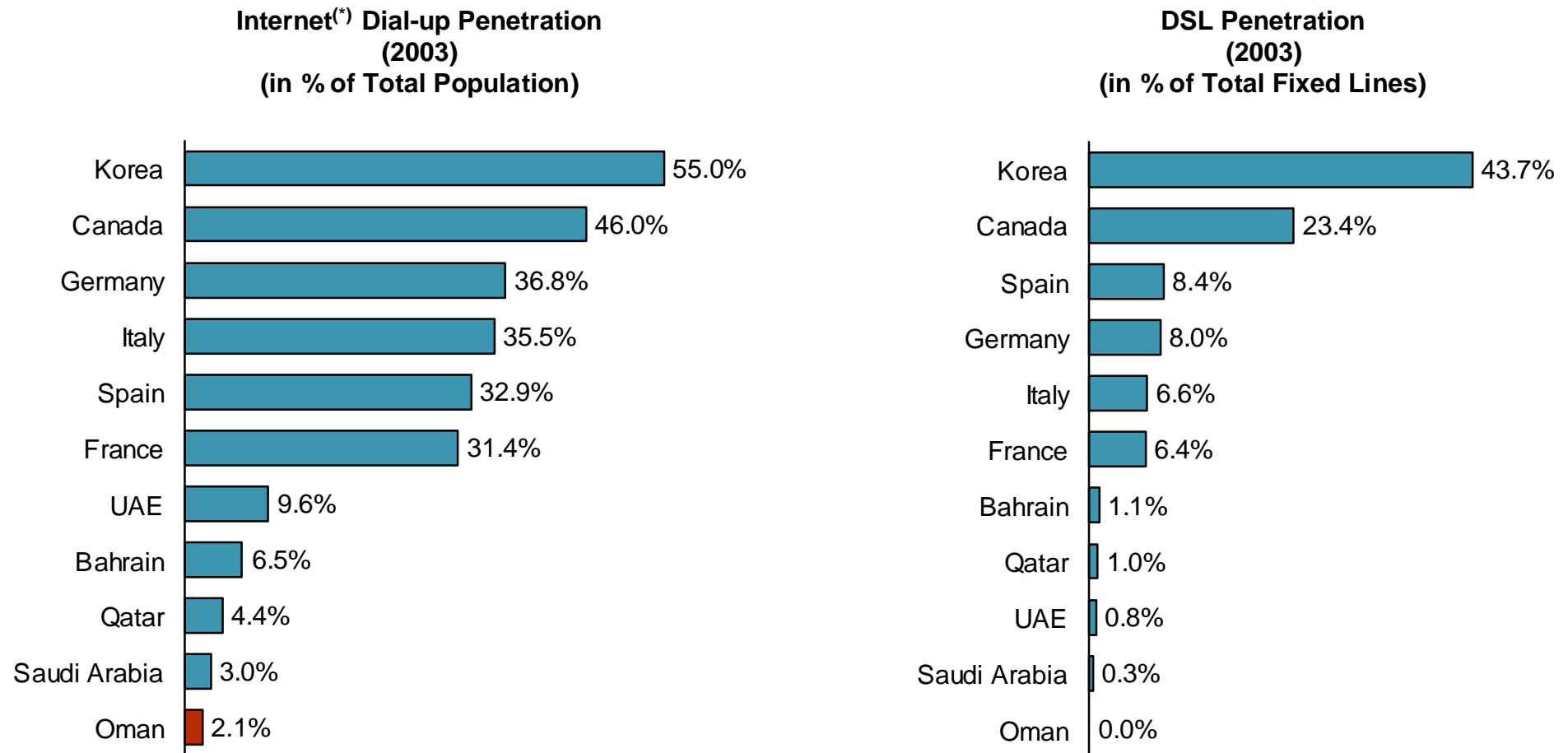


Batelco Major Initiatives	
4	Bateleco has been in pushing Data Services in Bahrain and the Middle-East. Batelco Data Services revenues reached 21% of total revenues in 2001 (mobile growth decreased its share in 2003)
4	Batelco aims to offer businesses regional and international access
4	Batelco formed Data Services companies/joint ventures in Jordan, Egypt, and Saudia Arabia
4	Batelco established a partnership with Cable and Wireless to provide global Data Services

(*) Data Services includes all Dedicated Data Connectivity Services for Business - excludes Internet Services
 Sources: Literature Search; Operator Web sites; Booz Allen analysis



...and Internet dial-up penetration is low relative to its regional peers, while DSL was just recently launched

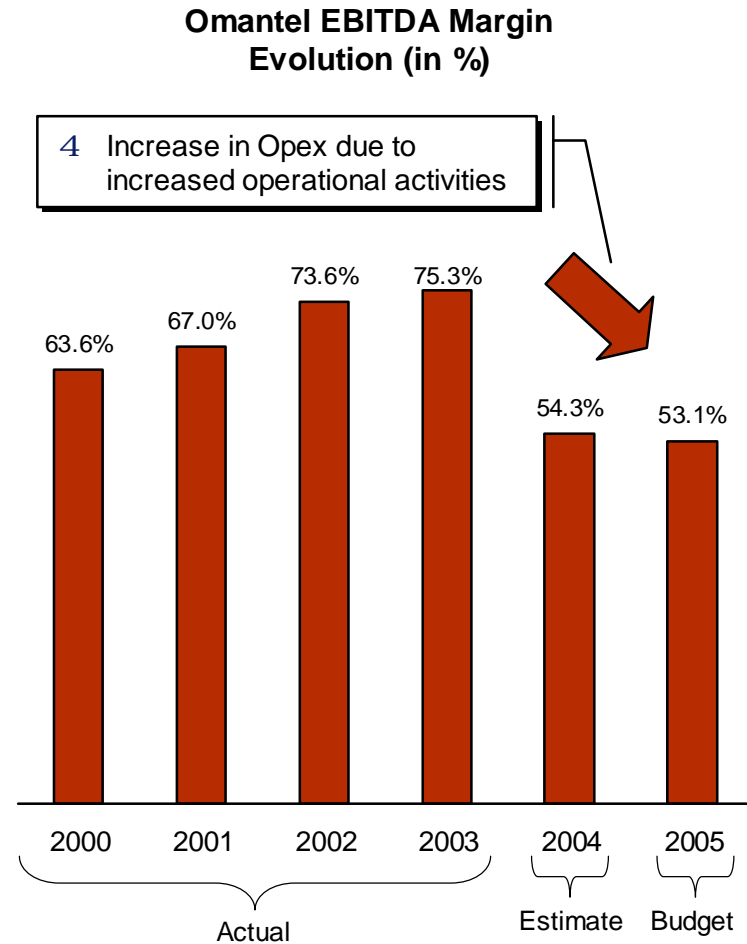
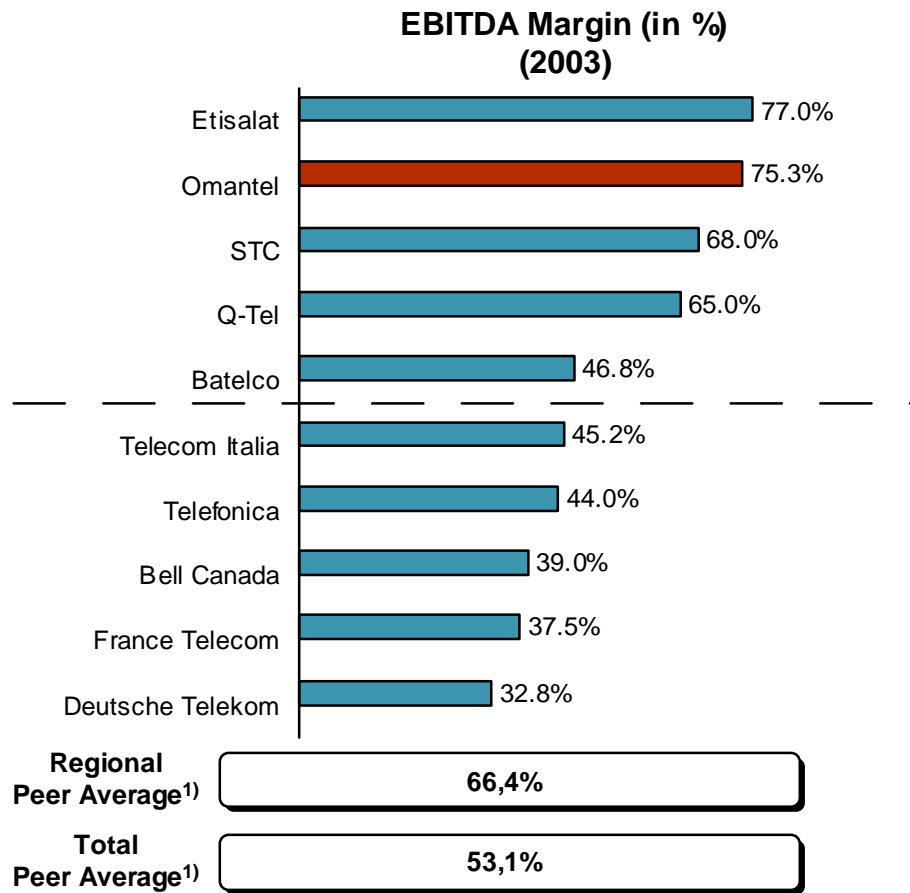


(*) The figures reflect the number of Internet dial-up users (rather than the number of accounts)
 Sources: Informa Fixed Line Database; ITU Database; Arab Advisors Group; Booz Allen analysis



Omantel demonstrated above regional EBITDA margins in 2003, but pressure on EBITDA margin is expected for 2004/2005

EBITDA Performance



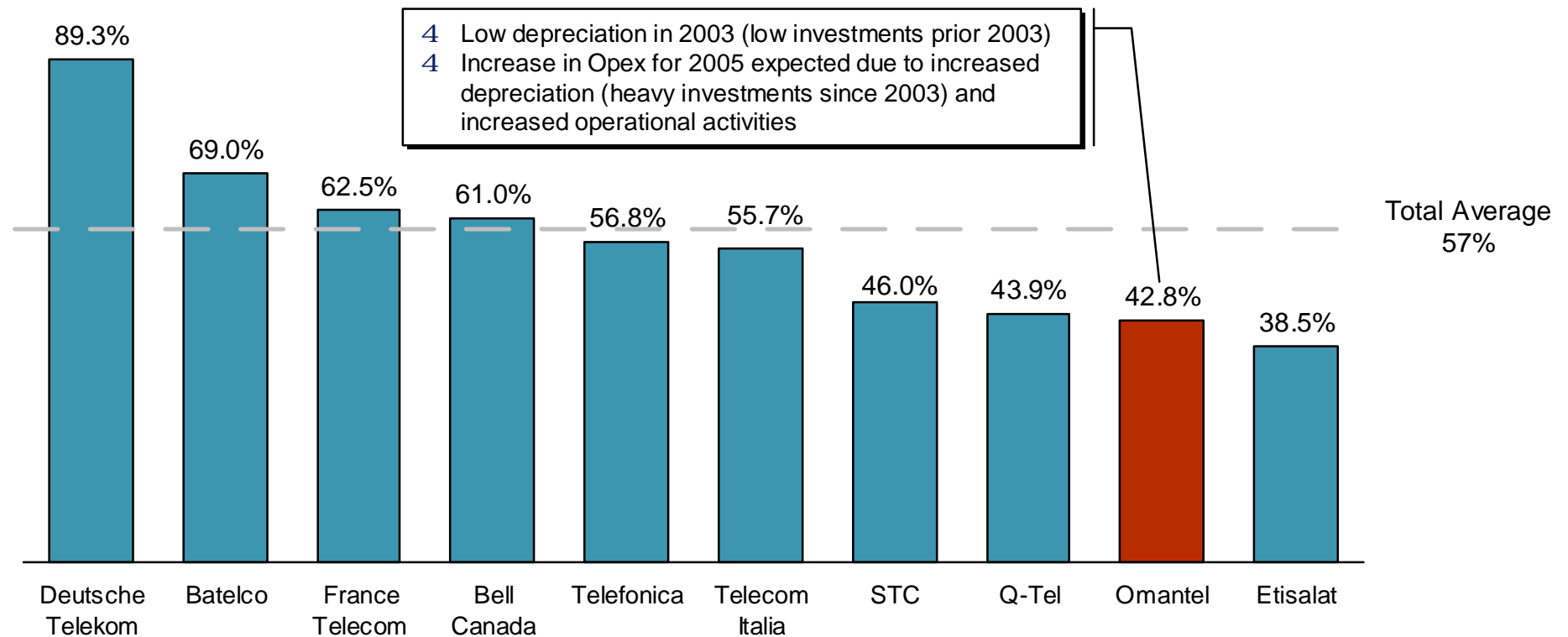
(1) Average not weighted

Sources: Annual reports 2003; Omantel Budget 2005; Omantel Business Plan Dec 2004; Booz Allen analysis



Omantel's operating costs are below regional peers in 2003, but increased pressure on operating costs is expected for 2004/2005

OpEx¹⁾/Revenues Ratio – Selected Global and Regional Operators (2003)



(1) OpEx includes Depreciation / Amortization

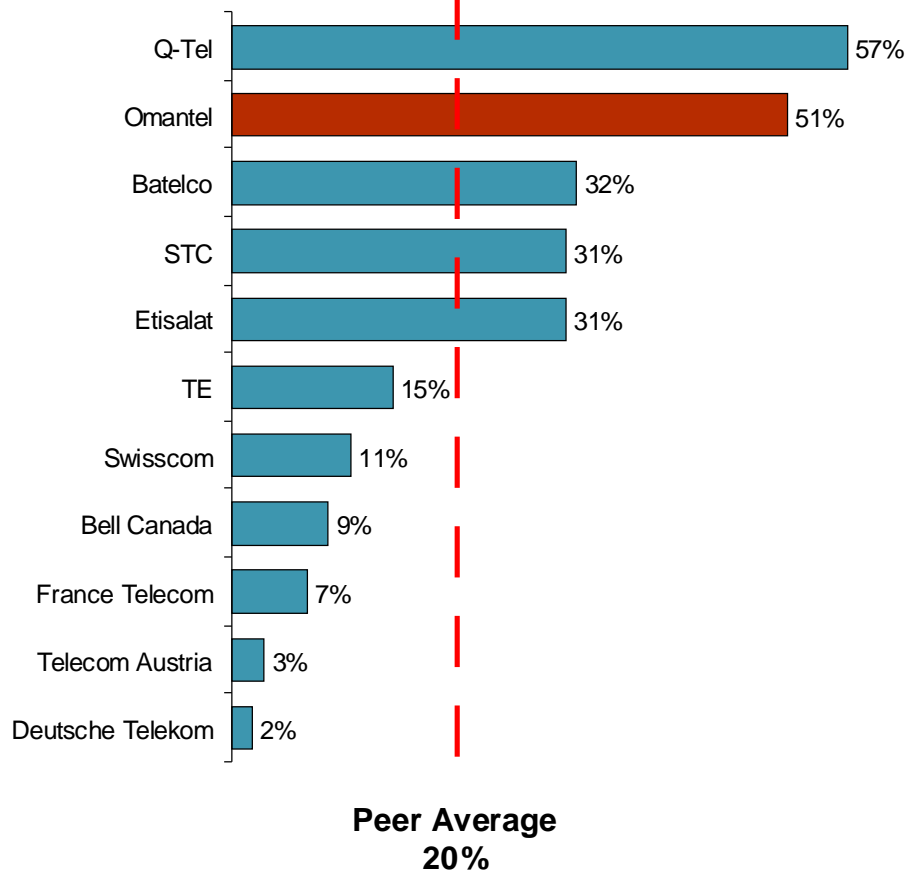
Note: 100% - OpEx/Revenues Ratio = EBIT margin (e.g. for Omantel EBIT margin 57,2%)

Sources: Annual reports 2003, Omantel Budget 2005; Booz Allen analysis

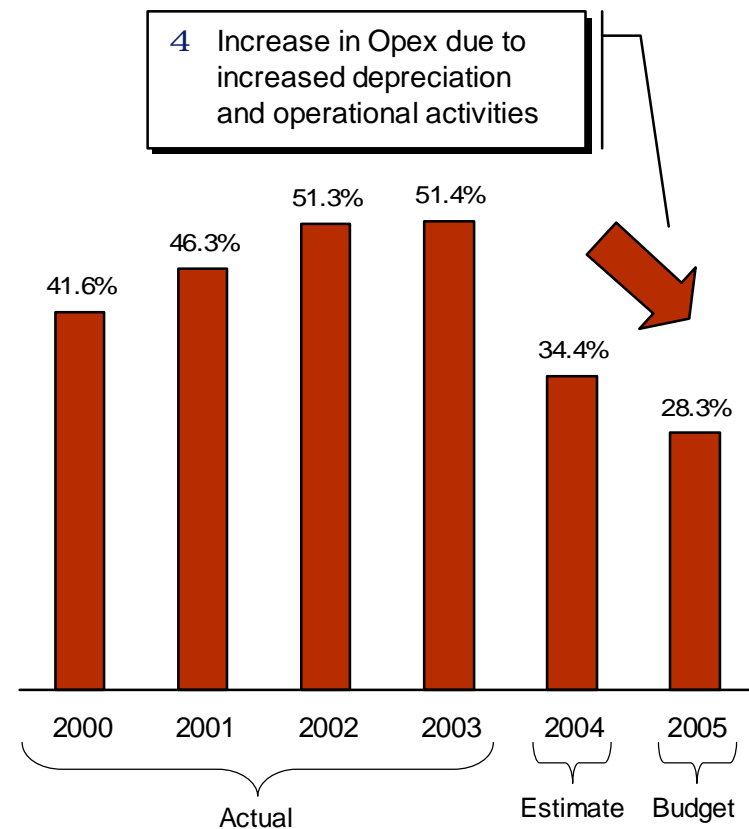


In 2003, Omantel's 51% profit margin was above its regional peers, but pressure on profit margin is expected for 2004/2005

Profit (Net Income) Margin – Selected Global and Regional Operators (2003)
(in %)



Omantel Profit Margin Evolution (in %) (2000-2005)



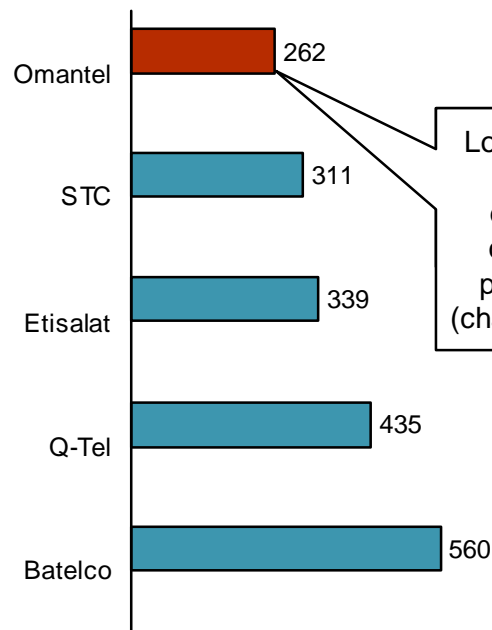
Sources: Annual reports 2003; Omantel Budget 2005; Omantel Business Plan Dec 2004_Booz Allen analysis



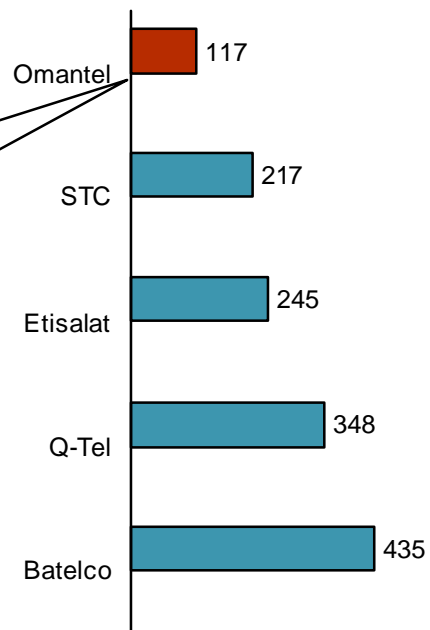
In 2003, operational cost per line is low compared to regional operators, mainly due to lower depreciation

Cost Comparison of Global and Regional Operators (2003)

OPEX⁽¹⁾ per Line Regional Operators (2003) (in USD)

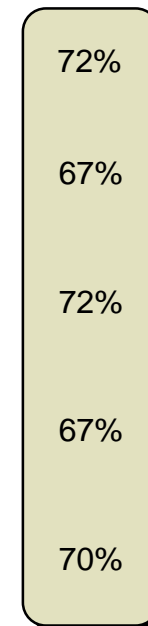


OPEX-Depreciation per Line Regional Operators (2003) (in USD)



Low OPEX-ratio due to low depreciation compared to peers in 2003 (changed in 2005)

Mobile Lines of Total Lines (2003)



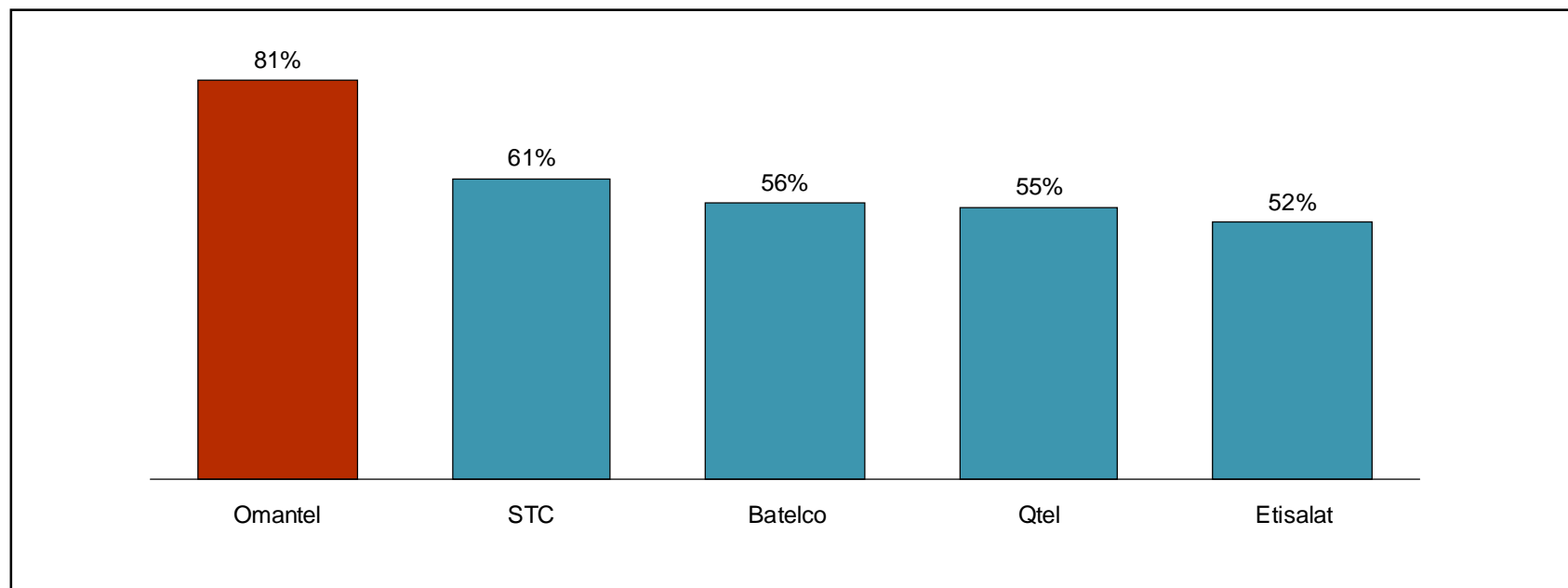
(1) OpEx incl. Depreciation / Amortization

Sources: Annual reports 2003; Omantel Budget 2005; Omantel Business Plan Dec 2004; Booz Allen analysis



Omantel's asset utilization in 2003 has been above regional operators

Revenues/Fixed Assets
(2003)



Remarks

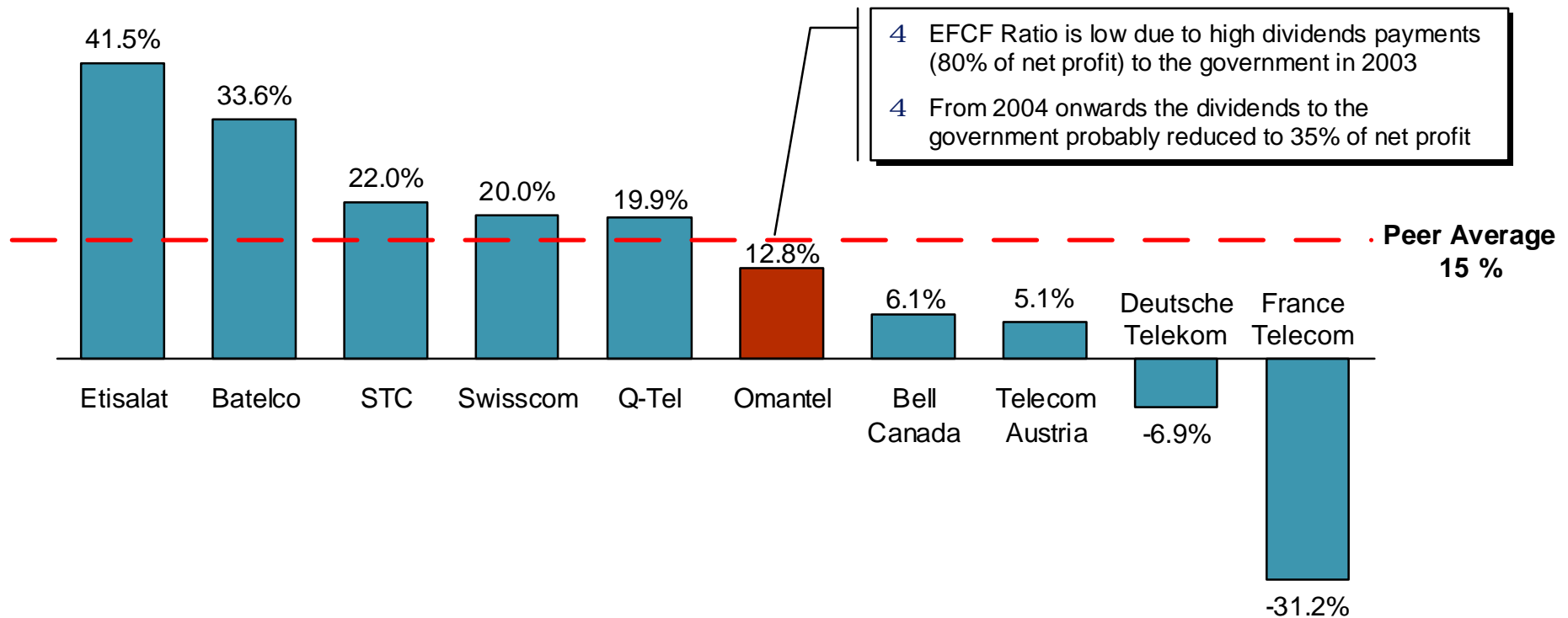
- 4 A better understanding of depreciation schedules, and type of assets across all the operators is needed for a more accurate assessment of asset utilization
- 4 Reduced asset utilization expected for 2005 after heavy investments since 2003

Sources: Operators' annual report; Booz Allen analysis



Compared to other regional operators, Omantel was not as well positioned to finance its investments in 2003

EFCF¹/Revenue – Selected Global and Regional Operators
(in %) (2003)



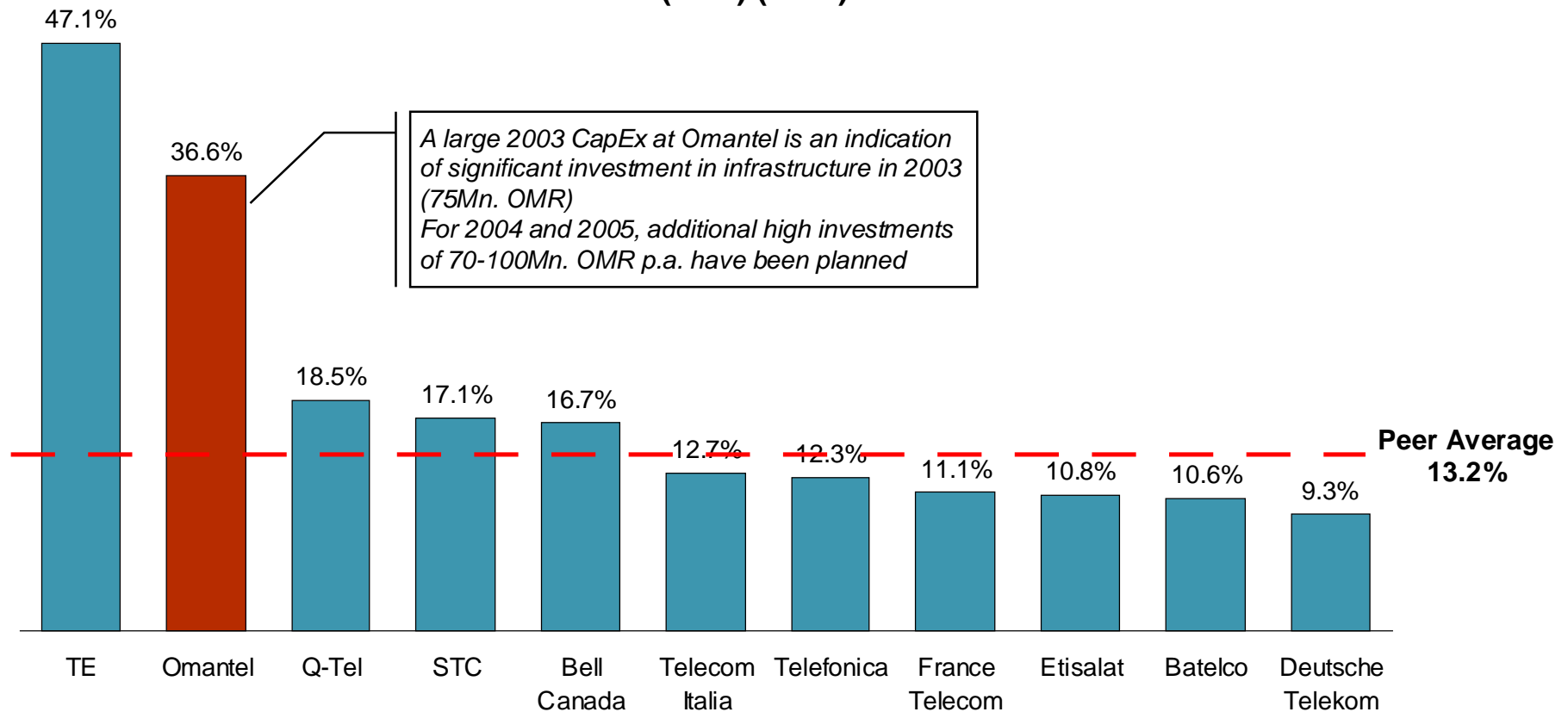
Note: (1) Equity Free Cash Flow = Free Cash Flows from Operations – Dividends Paid to Minority Shareholders – Net Acquisitions/Divestments – Debt repayments

Sources: Annual reports 2003, Omantel Budget 2005; Omantel Business Plan Dec 2004; Booz Allen analysis



CapEx amounted to 37% of total revenues, compared to a much lower average of 13% at other operators

CapEx/Revenue Ratio – Selected Global and Regional Operators (in %) (2003)



Sources: Annual reports 2003; Omantel Budget 2005; Omantel Business Plan Dec 2004; Booz Allen analysis

2. Market Facing

- 4 Segmentation, service offering and pricing
- 4 Branding and communication
- 4 Sales and distribution
- 4 Customer service

We will provide supporting material for Market facing activities along the four sub-dimensions of the SWOT framework





2 Market Facing Sub-Dimension

Segmentation, service offering and pricing	<ul style="list-style-type: none">4 Customer segmentation approach of Omantel and Oman Mobile4 Current service offerings of Omantel and Oman Mobile4 Current prices for each service offering (incl. international benchmarks)
Branding and communication	<ul style="list-style-type: none">4 List of all Omantel brands4 Branding and communication strategy
Sales and distribution	<ul style="list-style-type: none">4 Description of Omantel distribution direct and indirect channels4 Sales by distribution channel for mobile and fixed
Customer service	<ul style="list-style-type: none">4 Customer service KPIs (Key Performance Indicators) for Omantel and Oman Mobile4 Current customer service strategy



Currently Omantel does not have a clear customer segmentation in place, except splitting residential and corporate subscribers

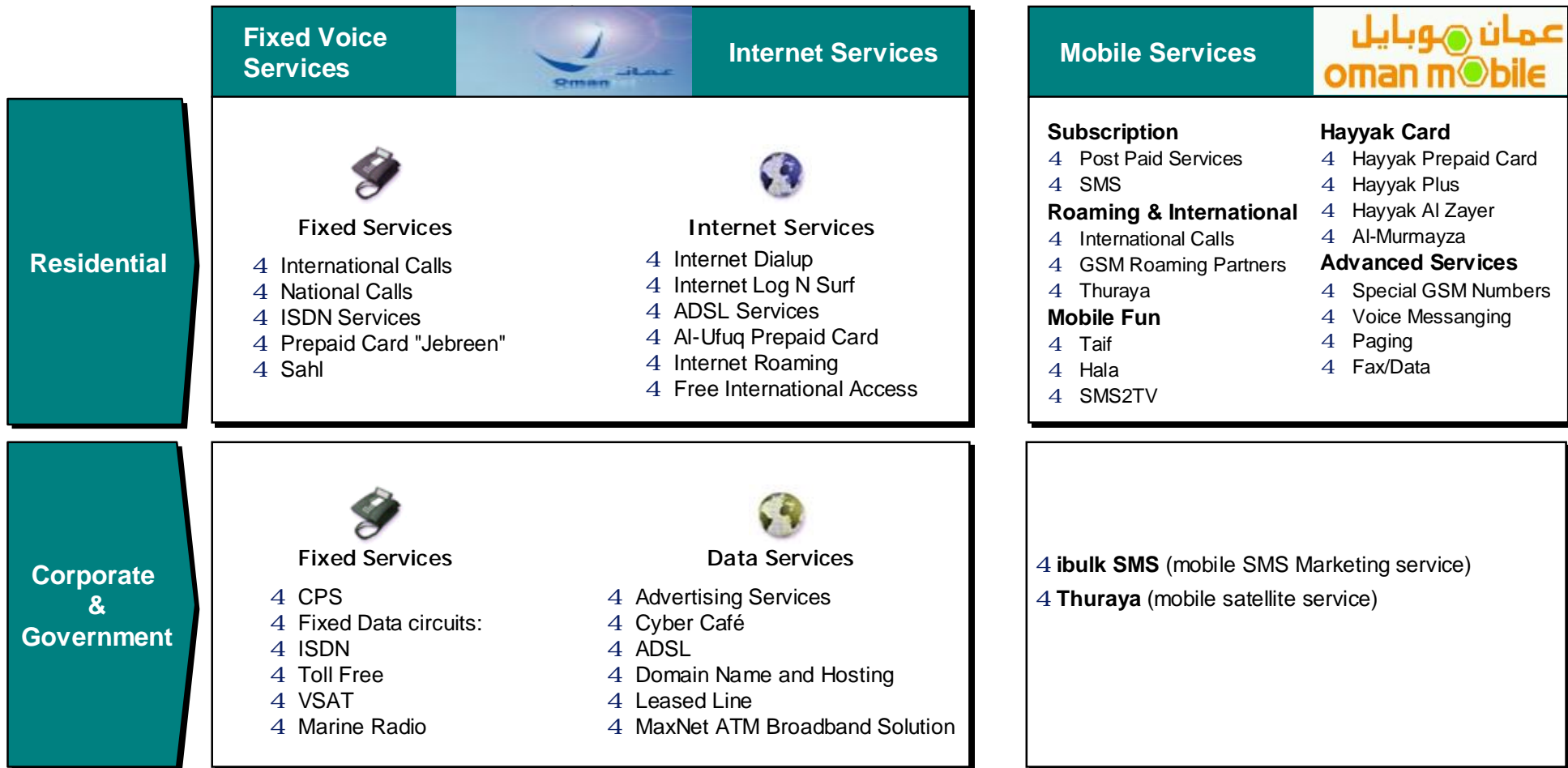
Omantel current Segmentation approach

		
	<ul style="list-style-type: none">4 Organizational and service offering segmentation for residential and corporate, but not within the residential segment further segmentation	<ul style="list-style-type: none">4 Oman Mobile has a first demographic customer profile segmentation draft, but this is not really implemented in the organization4 Market facing activities (products, services, marketing, distribution, communication, and customer care) do not distinguish between customer segments
	<ul style="list-style-type: none">4 Within the corporate further segmentation existent between government, large corporates and SME (Small and Medium Enterprises)	<ul style="list-style-type: none">4 For Mobile there is no fully and clear offering and separation of the corporate segment in place



Omantel operates along the entire telecommunications value chain, providing fixed voice, services and mobile services

Omantel Product Portfolio



Sources: Omantel and Oman Mobile Web site



Omantel has followed a relatively simple pricing approach, which worked to its advantage under a monopoly environment

Omantel Approach to Service Pricing

	General Pricing Structure		Pricing Plans		General Discounts
Fixed Voice Services	4 Monthly fee + per minute usage	X	4 One pricing plan	ü	4 Discounts for long distance 4 Off peak discounts
Fixed Data Services	4 Monthly fee + monthly charge based on service type (e.g., ATM, Frame Relay, etc.)	ü	4 Different pricing for distance, and data speeds	ü	4 Increasing discounts for large bill amounts
Internet Services	4 Monthly fee + usage fee for dial-up 4 Monthly fee + usage fee for ADSL	ü	4 Two pricing plans for dial up 4 One ADSL packages	X	4 No general discounts 4 Maximum cost for ADSL
Mobile Services	4 Prepaid: No Fee or yearly fee + per minute usage 4 Postpaid: Quarterly fee + per minute usage	X	4 One pricing plan for post paid 4 One pricing plan for prepaid	ü	4 Off peak rates



Advantages of Omantel pricing
<p>4 Simple pricing is appropriate in a monopolistic environment:</p> <ul style="list-style-type: none"> – Lack of complexity in the pricing process – Clearer and easier to understand for consumers – Limited and less complex IT system requirements – Easier to forecast demand for marketing department

ü High Differentiation ü Basic Differentiation X Limited Differentiation



Omantel offers different tariffs for fixed contract and fixed prepaid

Fixed line: Tariff Bands

Bands	Radial Distance in Km	Duration in Seconds for 25 Bzs.		Equivalent charge per Minute in Bzs		Dis- count	
		Day (Sec)	Night (Sec)	Day (Bzs)	Night (Bzs)		
1	Emergency services	Free	Free	Free	Free		
2	0 - 20	540	540	2.8	2.8		
3	21-100	120	240	12.5	6.25		
4	101 - 200	37.5	60	40	25	20%	
5	Over 200					47%	

SAHL	
4	A Nominal installation fee of OMR 10
4	Customer chooses payment options as follows: <ol style="list-style-type: none"> 1. Pay 12 months rent in advance and get 20% discount (monthly rent OMR 1.600) 2. Pay 6 months rent in advance and get 10% discount (monthly rent OMR 1.800)

Fixed line: Installation and Rental

Telephone Line	Installation OMR	2nd line for residential users
Residential Main Line	10/-	3/-
2nd line for residential users	10/-	2/-
Parallel Line	10/-	-

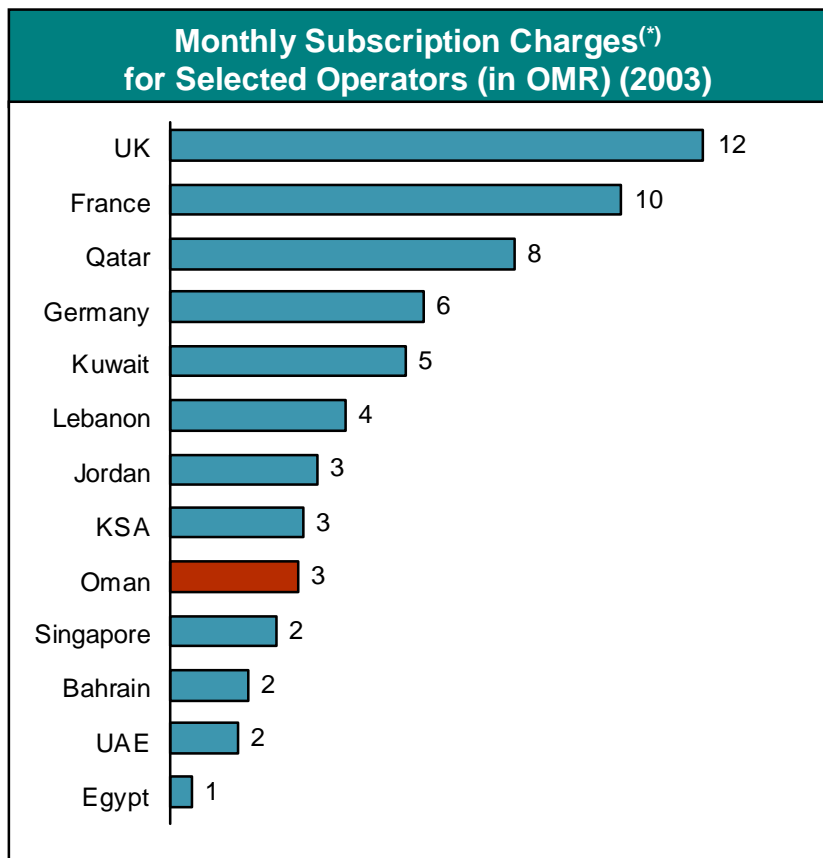
Jebreen	
4	Local and International Calls: Same as payphone tariff. Charged on first minute and every 15 seconds thereafter

Sources: Omantel Webpage March 2005



For fixed voice services, Omantel's local call charges and the subscription fee is average compared to regional operators

Local Charges Comparison (2003)



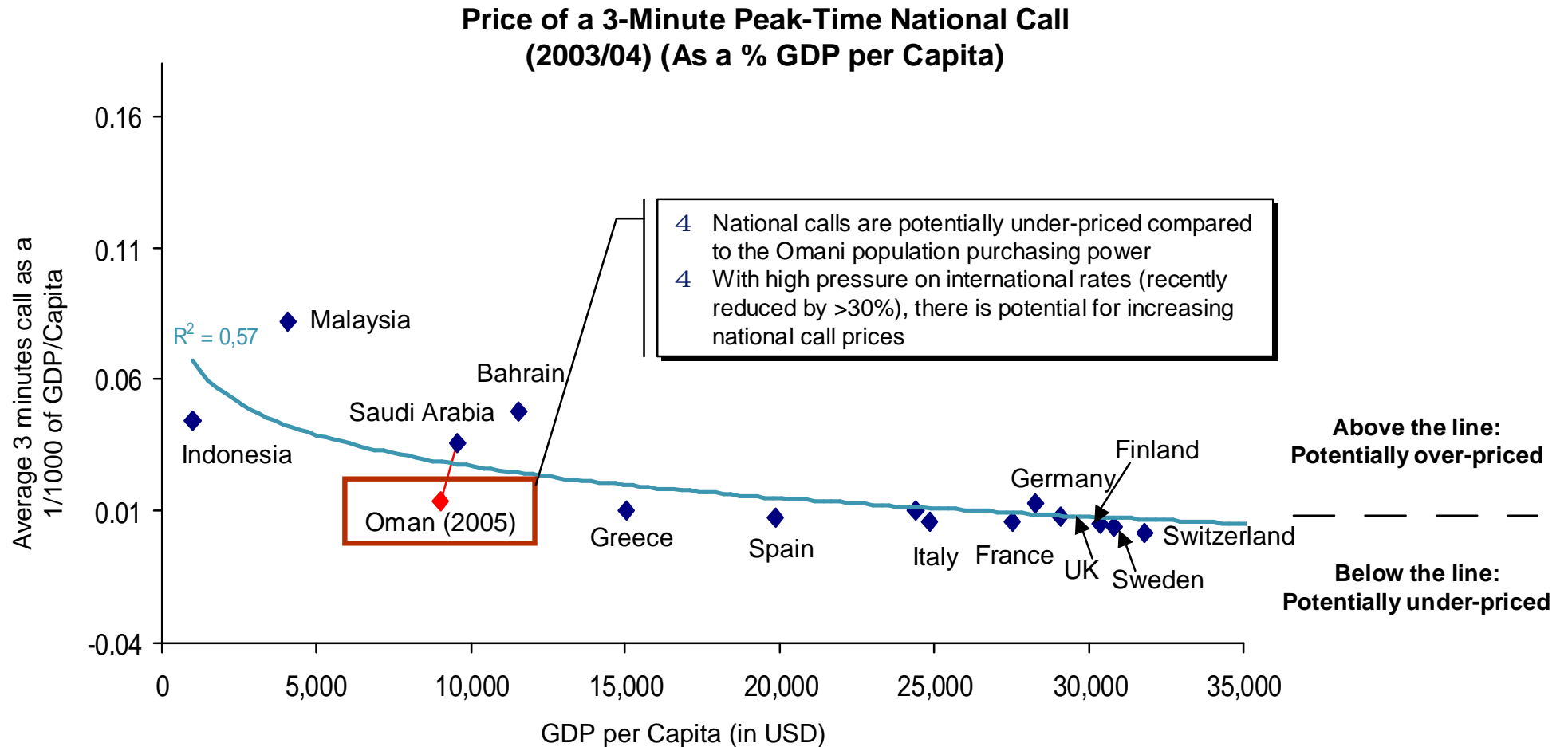
3 Minutes Local Call Rate Comparison (in OMR) (2003)

Lebanon	0.025
Saudi Arabia	0.015
Oman	0.008
Egypt	0.007
UAE	FREE
Kuwait	FREE
Qatar	FREE

(*) Average of residential and business monthly subscriptions
Sources: ITU Database 2003; Operators Data 2003/2004



The current national call rates (2005) are relatively low when compared to the GDP/Capita



Sources: ITU Database 2003; Operators Data 2003, Booz Allen analysis



For International Long Distance calls, Omantel and Batelco have some of the lowest rates in the region...

ILD Calls(*) Regional Operator's Rate Comparison (in OMR/min)
(March 2005)

	Omantel	Etisalat	Batelco	STC	Q-Tel
Sri Lanka		① 0.21	② 0.3	0.40	0.33
Turkey		① 0.21	② 0.27	0.33	0.34
Lebanon		② 0.		0.33	0.22
Jordan		② 0.		0.30	0.22
Pakistan		② 0.		0.38	0.32
India		① 0.21	② 0.27	0.38	0.32
UK		0.23	① 0.18	0.32	② 0.22
USA		① 0.17	① 0.18	0.26	0.21

To be updated
(New March 2005
research necessary)

- ① Cheapest Rate
- ② Second Best Rate

(*) Based on Peak and off Peak rates
Source: Operators data 2004



Oman Mobile pricing schemes differentiate between postpaid...

Oman Mobile postpaid services tariffs

Postpaid Charges		
1	Connection Fee	OMR 10.000
2	Subscription per month	OMR 4.000
3	Feature Set-up Charges	OMR 5.000
4	SIM Card Charges	OMR 7.000
5	Roaming Charges	Premium 15% on any applicable tariff in Oman
6	Re-connection after temporary disconnection	OMR 5.000
7	Change of Number	OMR 15.000 (exclude the price of special number)
8	Transfer of ownership	OMR 15.000 (exclude the price of special number)
9	Re-program SIM Card	OMR 3.000

Tariff Table					
		Duration for 25 bz		Charge per minute	
Tariff Bands	Radial Distance in Km	Duration in Seconds for 25 bz		Equivalent Charge per Minute (Bz)	
		Day	Night	Day	Night
1	Emergency Services	Free	Free	Free	Free
2	0-20 Km	60	120	25	12.5
3	21-100 Km	18	36	83.3	41.7
4	Over 100 Km	15	30	100	50
Roaming Charges: 15% premium on applicable tariff in Oman.					
Tariff Table					
		National		International	
SMS Per Message		0.010		0.050	



... and prepaid (Hayyak) services

Oman Mobile prepaid (Hayyak) services tariffs

"Hayyak Starter Kit" & "Rechargeable Vouchers"		
	Rate	Validity
STARTER KIT PACK	OMR 20.000 (including OMR 5 worth of call vouchers). Include features such as CLI, Call Waiting and Call forwarding	90 days for the initial period. Incoming call shall be allowed during the grace period.
Rechargeable Vouchers	1. OMR 3.000 2. OMR 5.000 3. OMR10.000	30 days 60 days 120 days
Grace Period		2 Months from the date of expiry of the Validity period.
Call Charges		
National Calls	1. Flat rate of 55/- bz for the first minute. 2. Subsequent 30 seconds charged at 35 bz. 3. Off-Peak rates are not applicable.	
World Call (International Call)	World Call (International Calls) will be charged based on 1+1 billing principle. Normal and Cheap rates are applicable.	
Roaming Facility	Not offered	

Hayyak Plus (Prepaid Extension Card)	
Hayyak plus Price	OMR 10/-
Validity Period	365 days
Grace Period	60 days
Total Receiving Period	425 days

Al-Mumayaza Tariffs (Prepaid Service for Visitors)	
	Peak (10:00 A.M - 1:00 P.M) (8:00 P.M - 11:00 P.M)
Local SMS	20 Baiza per SMS
International SMS	50 Baiza per SMS

Hayyak Al-Zayer Tariffs (Prepaid top-up Card)	
Call Type	Charge (OMR)
Local Calls	75 Bz/minute (Flat rate).
International Calls	425 Bz/minute



For ISDN, Omantel offers basic and primary rate access tariffs

Basic Rate Access (2B+D)

	Installation (OMR)	Monthly Rental
Access Line	15	6
Additional Number	5	2
Network Termination Unit (NTU)	5	3
Conversion from PSTN	10	As above

Primary Rate Access (30B+D)

	Installation (OMR)	Monthly Rental	Remarks
			Incl. DID/DOD facility charges
30 channels	200	120	Excludes number block allocation charges.
20 channels	200	105	
10 channels	200	90	
Conversion from 2mb analog to ISDN	100	As above	
Change of channel capacity	Free		
Supplementary Services	As per approved charges for Digital (PSTN) Exchanges.	As per approved charges for Digital (PSTN) Exchanges	Charged as additional services for normal telephone service

Sources: Omantel Webpage March 2005



For Internet and DSL, Omantel offers Dial up, Log 'N' Surf and PowerNet tariffs

Internet dial up tariff

Services	Price (OMR)
One time setup fee	10/-
Monthly Charge	2/-
Excess Charges per Hour	180 baiza
Re-connection Fee	1/-
Additional Services	
E-mail Extra Space per 1 MB	200 baiza

Internet Log 'N' Surf Tariff:

Service Offered from...	Fee Per Minute
PSTN (Regular Phone)	25 Baiza per minute
GSM	50 Baiza per minute

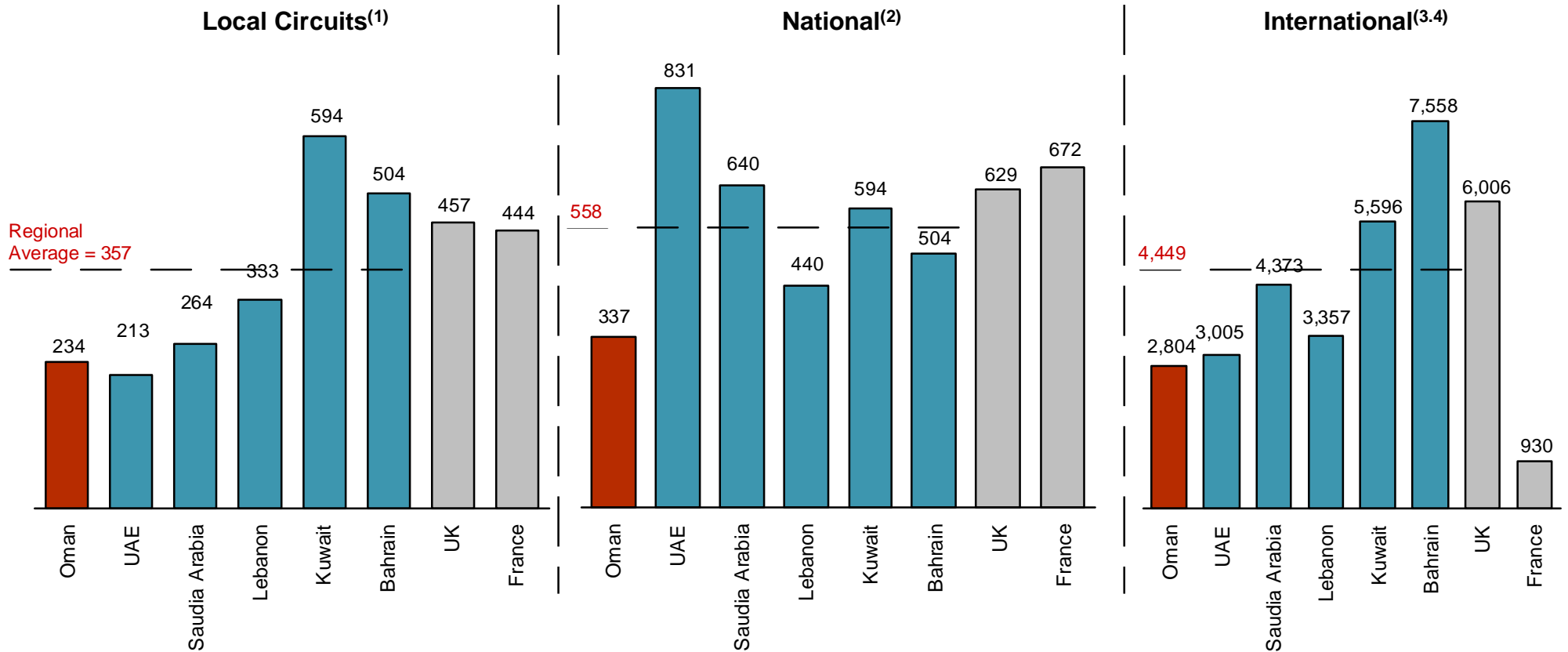
PowerNet Tariff (DSL)

Type	Installation	Monthly Rental	Usage charges / GB OMR	Speed in Kbps Upload/ Download	Maximum Amount – OMR / Month
Residential	25	12	1	128/384	39
Business	25	120	1	128/1024	Pay as per the use.
Cyber Cafe	25	75	1	128/1024	250
Gov. Schools	25	20	Unlimited	128/512	20



For low-speed digital leased lines, Omantel has low local, national and international rates compared to regional average

Digital Leased Lines Subscription Benchmarks
(64 Kbps) (in USD) (2004)

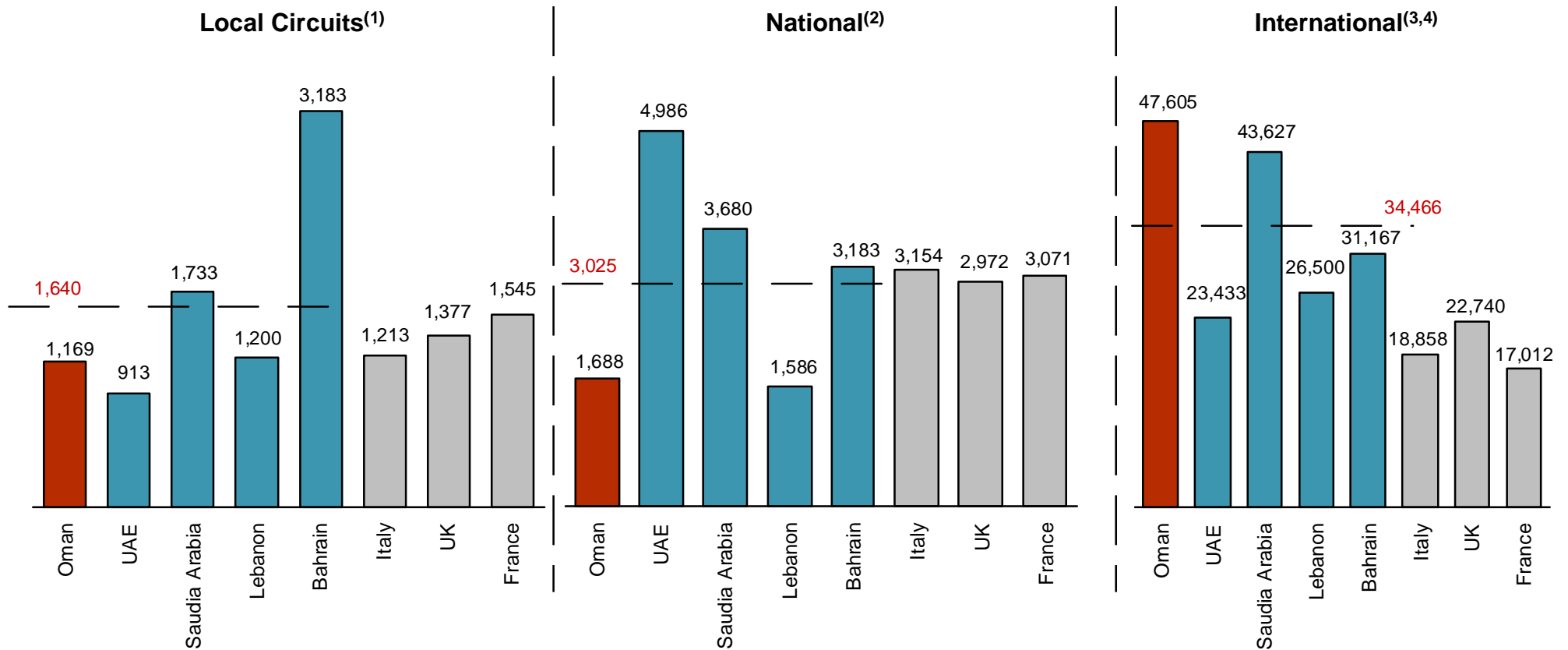


(1) Assuming 10km distance or same exchange; (2) 100 km distance; (3) Prices are for half circuits; (4) to North America
Source: Telcos Web sites (Feb 2004)



For high-speed digital leased lines, Omantel has low local and national, but high international rates compared to regional average

Digital Leased Lines Subscription Benchmarks
(2 Mbps) (in USD) (2004)



(1) Assuming 10km distance or same exchange; (2) 100 km distance; (3) Prices are for half circuits; (4) to North America
Source: Telcos Web sites (Feb 2004)



Omantel has recently split its mobile business, creating a new brand “Oman Mobile” and has defined a set of Product brands

Selected Omantel Brands



Comment

- 4 Omantel brand is established in the market since many years, whereas Oman Mobile is new since ~1 year
- 4 Omantel recently introduced SAHL as a new brand for prepaid fixed services
- 4 Oman Mobile currently positions and manages three main brands in the market: “Oman Mobile” (Main brand), “Hayyak” (for PrePaid) and “taif” (for all multimedia services)
- 4 Branding and communication/marketing are organizational separated and not fully aligned to each other



Omantel is strongly engaged with sponsoring and contributing to the society



Omantel's marketing and communication efforts are directed at adding value to the brand and endorsing its role as an integral partner in the everyday life of the people of Oman.

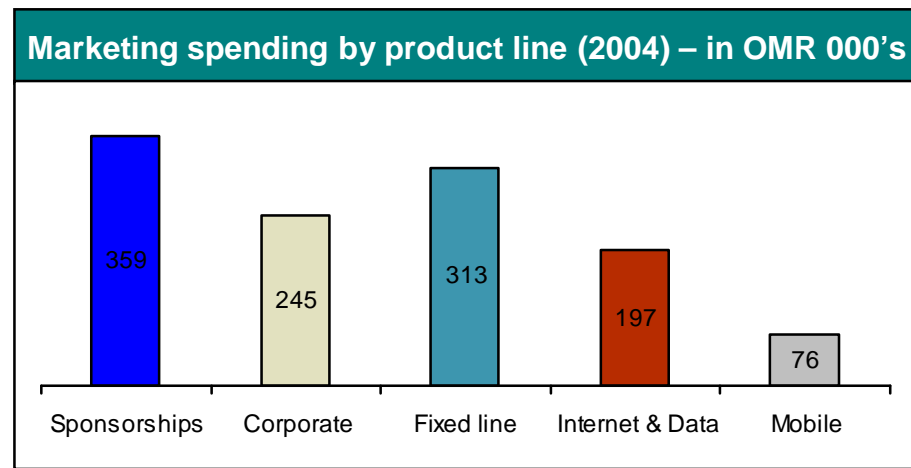
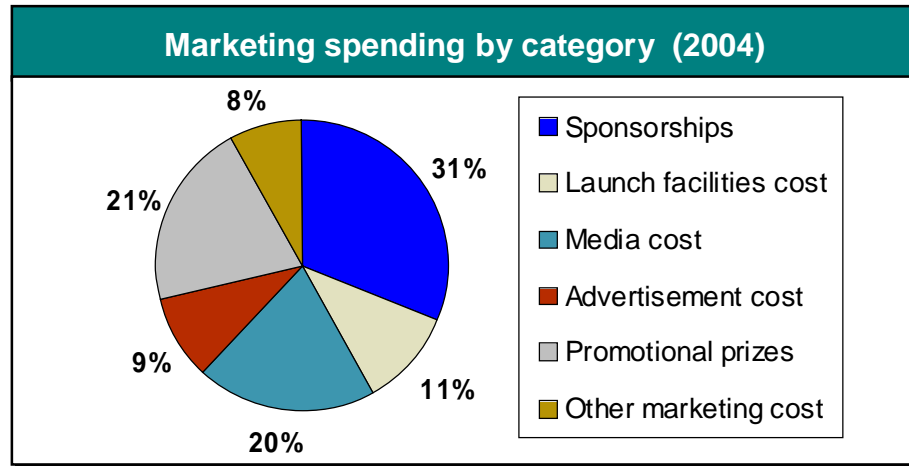


Omantel sponsorship / contribution to society

- 4 Omantel's goal is to engage with and improve the well-being of the communities by active involvement and dialogue
- 4 In the recent years Omantel has invested its time and effort to improve the society
- 4 Omantel donated and contributed continually to different social activities:
 - Social (number of events 2004: 32)
 - Sports (21)
 - Educational (13)
 - Arts & Entertainment (8)
 - Health (6)
 - Tourism, Industrial & Banking (6)
 - IT, Comp. and Telecom (5)
- 4 Omantel seeks responsibility in using Information, Communication, Technology (ICT) in improving the social life in Oman



Marketing activities accounted for OMR 1.2 Mn. with sponsorships as the main spending category



Product launch, campaigns and promotion 2004

	Activity	Launched
1	Hayyak Plus	Jan 04
2	Hayyak Al Zayer	Jan 04
3	Leased Line Tariff Revision	Feb 04
4	Internet Leased Line Tariff Revision	Feb 04
5	Internet PC Bundled Offer	Apr 04
6	National Long Distance Price revision	May 04
7	Maxnet (ATM) Product Launch	May 04
8	Sahl – Fixed pre-paid service	Oct 04
9	Scartch & Win Consumer Promotion	Oct 04
10	PowerNet (ADSL) Product Launch	Dec 04

Sources: Omantel Annual report part Marketing Development (Jan 2005), Interviews



Omantel service counters currently follow a “serve-all strategy”, however Oman Mobile is positioning its branding and services through new “Oman Mobile shops”

Customer Service Counters Overview

- 4 32 customer service counters established in the country
- 4 Sales of the major Omantel services (incl. fixed, mobile and internet services)
- 4 Customer care section to handle inquiries
- 4 Handling both residential and corporate customers

New Oman Mobile Sales Strategy

- 4 New service counter strategy to position the Oman Mobile branding, create awareness and be fully customer-centric
- 4 Supports Oman Mobile overall strategy that the customers are the prime target
- 4 Strategy aligned to Oman Mobile’s “Connected With You” slogan



- 4 Al-Araimi Customer Service Counter as the first example



Sales strategy / Distribution landscape page

Oman mobile marketing input
Send by March 12th



Oman Mobile has developed and approved a clear strategy for customer service...

Oman Mobile Customer Service Strategy (1/2)

Customer Service Mission Statement

“To provide a personalized and multi-access customer service through friendly staff, state of art technology, and easy access”



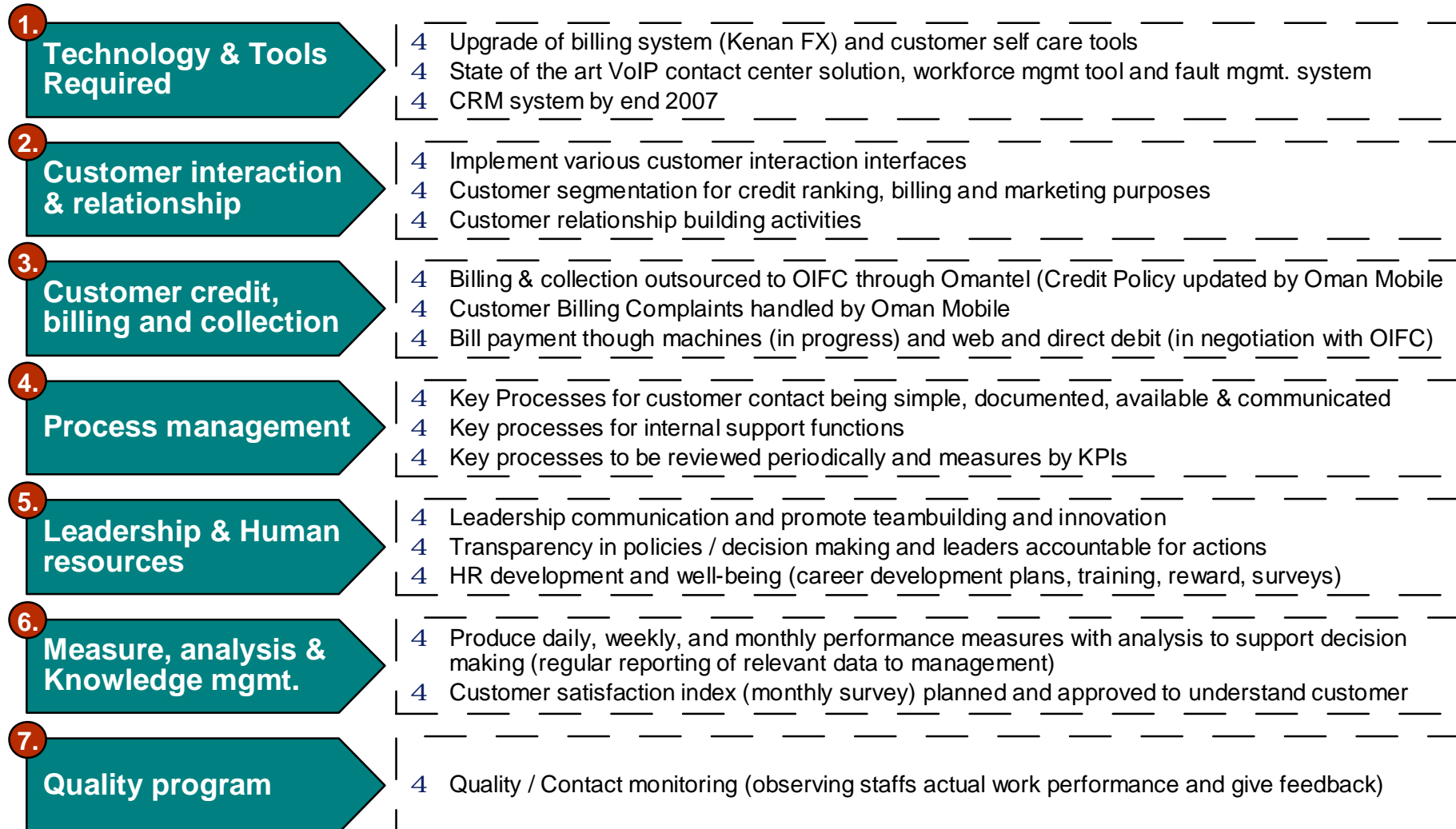
Goals and Objectives (for Customer Service)

1. Give **customers choice** to choose **method of contact** (face to face, voice calling, mailed letters, IVR, ATM, e-mail, web, fax, or SMS)
2. Provide **contact center access at anytime** (24X365)
3. Provide **convenient face to face customer services** through Oman Mobile retail shops, Omantel retail shops, or appointed dealers
4. Give customer choice to help himself through Interactive Voice Response (IVR), SMS, Bill payment machines, and web access
5. Make every contact a **personalized experience**
6. **Know who are our customers** and reason for their contact
7. Support and **retain existing customers**
8. Handle diverse customers' needs
9. Create a **performance measure** that is simple to understand, measurable, drive the right behavior, accountability based on control, and support our high level business goals.
10. **Reduce servicing time and costs**
11. **Motivate, empower,** and develop our **staff** to deliver a great service
12. Convert service issues to **revenue opportunities**



...which requires implementation activities in seven areas

Oman Mobile Customer Service Strategy (2/2)



Sources: Oman Mobile Customer Service Strategy Document (Jan 2005; Adil Alraisi); Booz Allen summary



Omantel’s and Oman Mobile’s Contact Center have improved in the last year, but are still behind international best practice

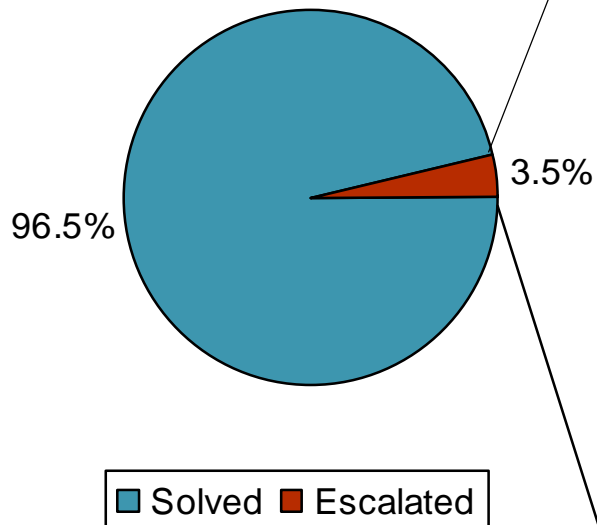
KPIs	Omantel Call Center (Feb 05 ¹⁾)	Oman Mobile Call Center (Jan 05 ¹⁾)		
	Actual	Targets	Actual	Best practice / Comment
Total calls¹⁾	650,272	n/a	317,191	<i>On average 38% of customer base called in January the Oman Mobile contact center (~4.5 calls per customer p.a.)</i>
% of Answered Calls	82%	>90%	83%	99% <i>High improvements since last year, but still low to international benchmarks</i>
Average Talking Time	n/a	< 40 Seconds	69 Seconds	n/a
Average Waiting Time (Seconds)	20 Seconds	< 30 Seconds	51 Seconds	3 Seconds
Service Level (% of Calls Answered in 30 seconds)	71%	>80%	43%	90-95%
Average staff	n/a	n/a	10.4	<i>Comment from Oman Mobile Customer Care: More staff needed to fulfill targets</i>

(1) Omantel data is for month February 2005; Oman Mobile data is for month January 2005
 Source: Omantel and Oman Mobile Customer Care; Booz Allen analysis

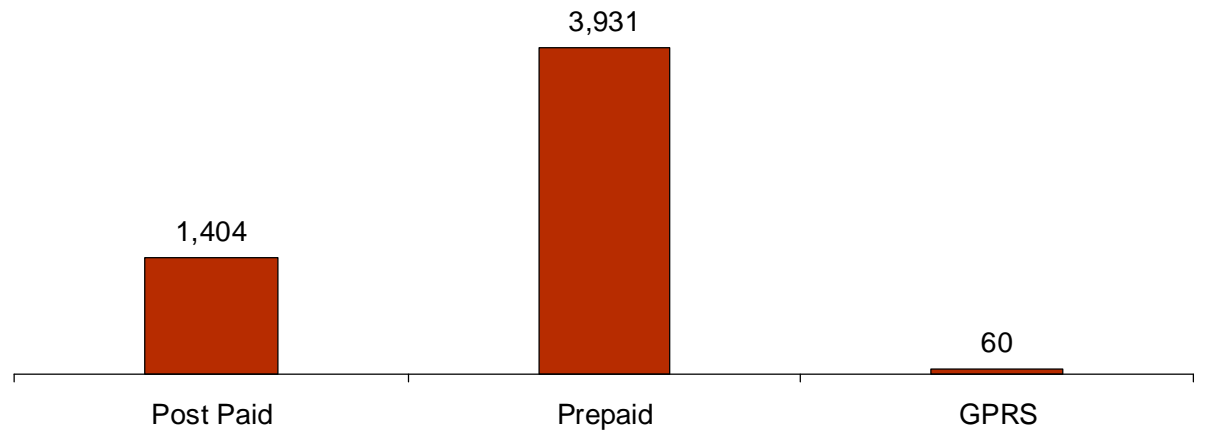


3.5% of tickets needed to be escalated in Feb 2005 mainly complaining about “network coverage”, “SMS” and “general Hayyak”

Oman Mobile Service Center Escalated Calls Share of total calls (Feb 2005)



Oman Mobile Service Center Escalated Calls Details (Feb 2005)



Post-Paid	Pre-Paid	GPRS
4 Network coverage (64%)	4 SMS service (55%)	4 MMS Complaints (62%)
4 SMS service (19%)	4 General Hayyak (28%)	4 WAP Complaints (13%)
4 Delay in activating (7%)	4 Network busy (6%)	4 GPRS Coverage (13%)
4 Roaming (4%)	4 SIM replacement (6%)	4 Deactivating GPRS (12%)
4 Voice Mail (3%)	4 International calls (3%)	
4 Others (3%)	4 Others (2%)	

Source: Oman Mobile Customer Care; Booz Allen analysis

3. Internal Business Processes

- 4 Network and IT processes
- 4 Product development and management processes
- 4 Market facing processes
- 4 Planning and Support processes

We will provide supporting material for internal business processes along the four SWOT evaluation sub-dimensions

3 Internal Business Processes Sub-dimension

Market facing processes

- 4 Marketing
- 4 Sales
- 4 Customer service

Product development and management processes

- 4 Product development process
- 4 Product lifecycle management process

Network and IT processes

- 4 Network process
- 4 IT processes

Planning and Support processes

- 4 Strategic and business planning process
- 4 HR processes (recruitment, training, performance mgmt., promotions)
- 4 Procurement processes
- 4 Finance processes



Currently there are very few formal market facing processes in Omantel

Preliminary Market Facing Processes Evaluation

	Existence of Formal Process	Documentation	Ownership	Intra-BU Interactions	Inter-BU Interactions	Rationale
Marketing Communication Process Omantel	X	X	X	X	X	<ul style="list-style-type: none"> 4 No process mapped for marketing communication 4 Ownership fragmented across different departments
Sales plan Implementation and Management Omantel	X	X	X	X	X	<ul style="list-style-type: none"> 4 No comprehensive sales plan
Key Customer Service Processes Omantel	X	X	ü	X	X	<ul style="list-style-type: none"> 4 No formalized customer service manual including all processes. Existence, however of customer service training manuals for different products
Marketing Communication Process Oman Mobile	X	X	X	X	X	<ul style="list-style-type: none"> 4 No mapped processes 4 Communication process ownership fragmented (different ownership for corporate communication and for product communication for example)
Sales plan Implementation and Management Oman Mobile						
Key Customer Service Processes Oman Mobile						

ü Adequate X Sub-optimal

Sources: Omantel and Oman Mobile interviews



Product development and management processes are inexistent for Omantel

Preliminary Product Development and Management Processes

	Existence of Formal Process	Documentation	Ownership	Intra-BU Interactions	Inter-BU Interactions	Rationale
Product Development Process Omantel	X	X	X	X	X	<ul style="list-style-type: none"> 4 No product development process 4 Unclear process ownership (whether technology oriented or market driven) 4 Limited interaction with Oman Mobile
Product Lifecycle Management Omantel	X	X	X	X	X	<ul style="list-style-type: none"> 4 No product management process
Product Development Process Oman Mobile						
Product Lifecycle Management Oman Mobile						

ü Adequate X Sub-optimal



Network and IT processes

Preliminary Network and IT Processes Development

Sources: *Omantel and Oman Mobile interviews*

ü Adequate X Sub-optimal



Planning processes seem more developed than market facing, product development and network processes

Preliminary Planning Processes Evaluation

	Existence of Formal Process	Documentation	Ownership	Intra-BU Interactions	Inter-BU Interactions	Rationale
Strategic and Business Planning Omantel	ü	ü	X	X	X	<ul style="list-style-type: none"> 4 Some strategic planning and budgeting processes exist, but not fully detailed 4 The ownership of the process is not yet fully defined (finance, corporate development)
Marketing Planning Omantel	X	X	X	X	X	<ul style="list-style-type: none"> 4 No comprehensive Marketing Plan
Strategic and Business Planning Oman Mobile	ü	ü	ü	X	X	<ul style="list-style-type: none"> 4 Some strategic planning and budgeting processes exist, but not fully detailed 4 Limited interaction with Omantel
Marketing Planning Oman Mobile	ü	ü	X	X	X	<ul style="list-style-type: none"> 4 Marketing plan developed for 2005 4 However, not systematically followed 4 Sub-optimal interaction with Omantel

ü Adequate X Sub-optimal

Sources: Omantel and Oman Mobile interviews



Support process are also more developed than other processes

Preliminary Key Support Processes Evaluation

	Existence of Formal Process	Documentation	Ownership	Intra-BU Interactions	Inter-BU Interactions	Rationale
Procurement Processes	ü	ü	ü	ü	ü	4 Comprehensive procurement and tendering process documentation
Finance Processes						
Project Management Processes	ü	ü	X	X	X	4 Comprehensive project management processes developed, but currently not fully applied by all departments in Omantel and Oman Mobile
HR Processes Omantel	X	X	ü	X	X	4 Although individual procedures might exist, process mapping is currently underway, in parallel with the HRMS system installation
HR Processes Oman Mobile	ü	ü	ü	ü	X	4 HR processes have been mapped after mobile separation 4 Interaction model with Omantel still not finalized

ü Adequate X Sub-optimal

4. Strategic Resources

4 Operating model

4 Human capital

4 Network resources

4 IT resources

We will provide supporting material for strategic resources along the four SWOT evaluation sub-dimensions

4 Strategic Resources Sub-dimension

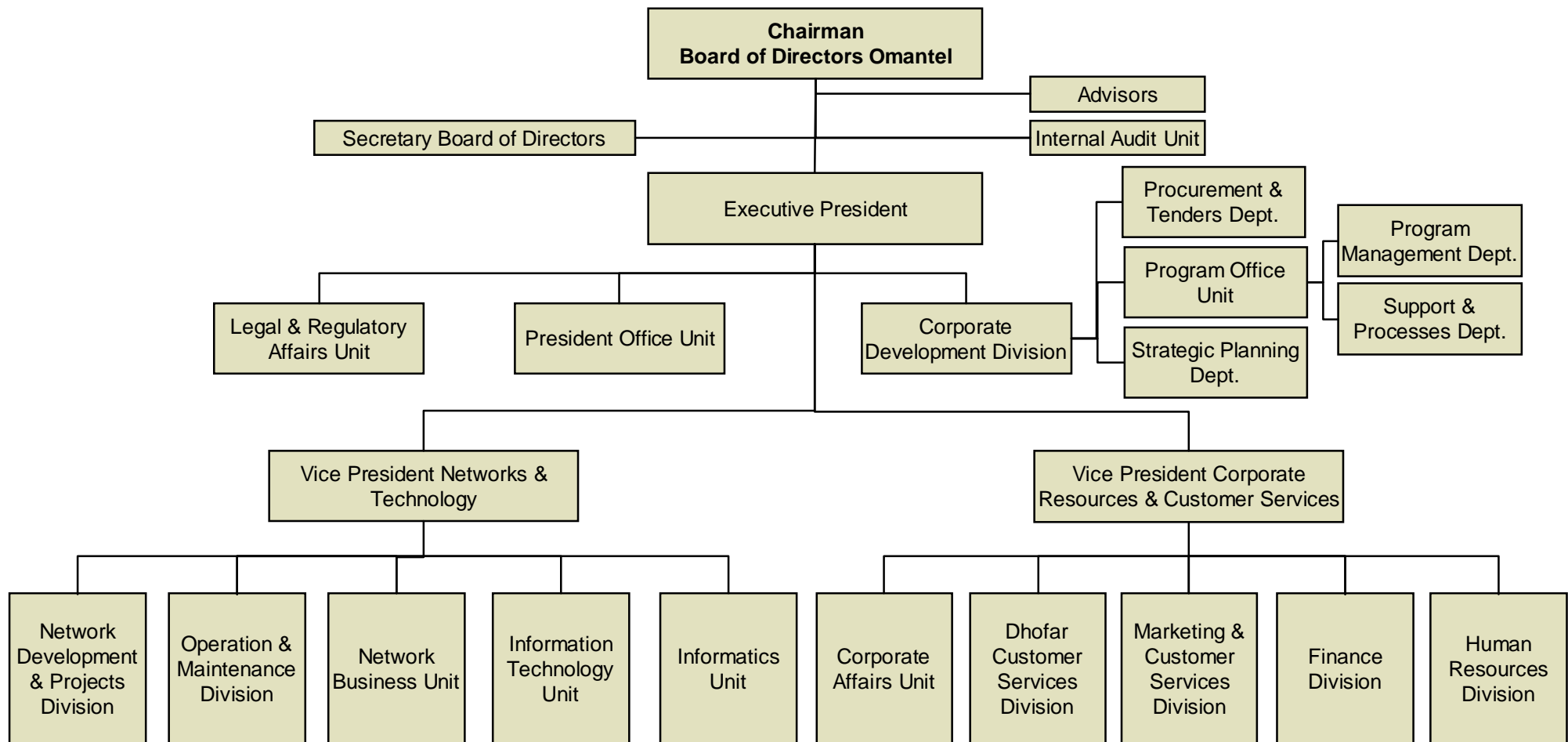
Operating model	<ul style="list-style-type: none">4 Current Omantel and Oman Mobile organizational structure4 Description on current governance model
Human capital	<ul style="list-style-type: none">4 Human resources costs4 Cost per employee and line per employee ratio4 International benchmarks
Network resources	<ul style="list-style-type: none">4 Established technologies in the mobile network4 Established technologies in the fixed line network
IT resources	<ul style="list-style-type: none">4 Current customer facing IT systems4 IT systems for supporting processes

Operating model



Currently, Omantel organization is structured around two main units, namely “Networks and Technology” and “Corporate Resources and Customer Service”

Omantel Organization Chart

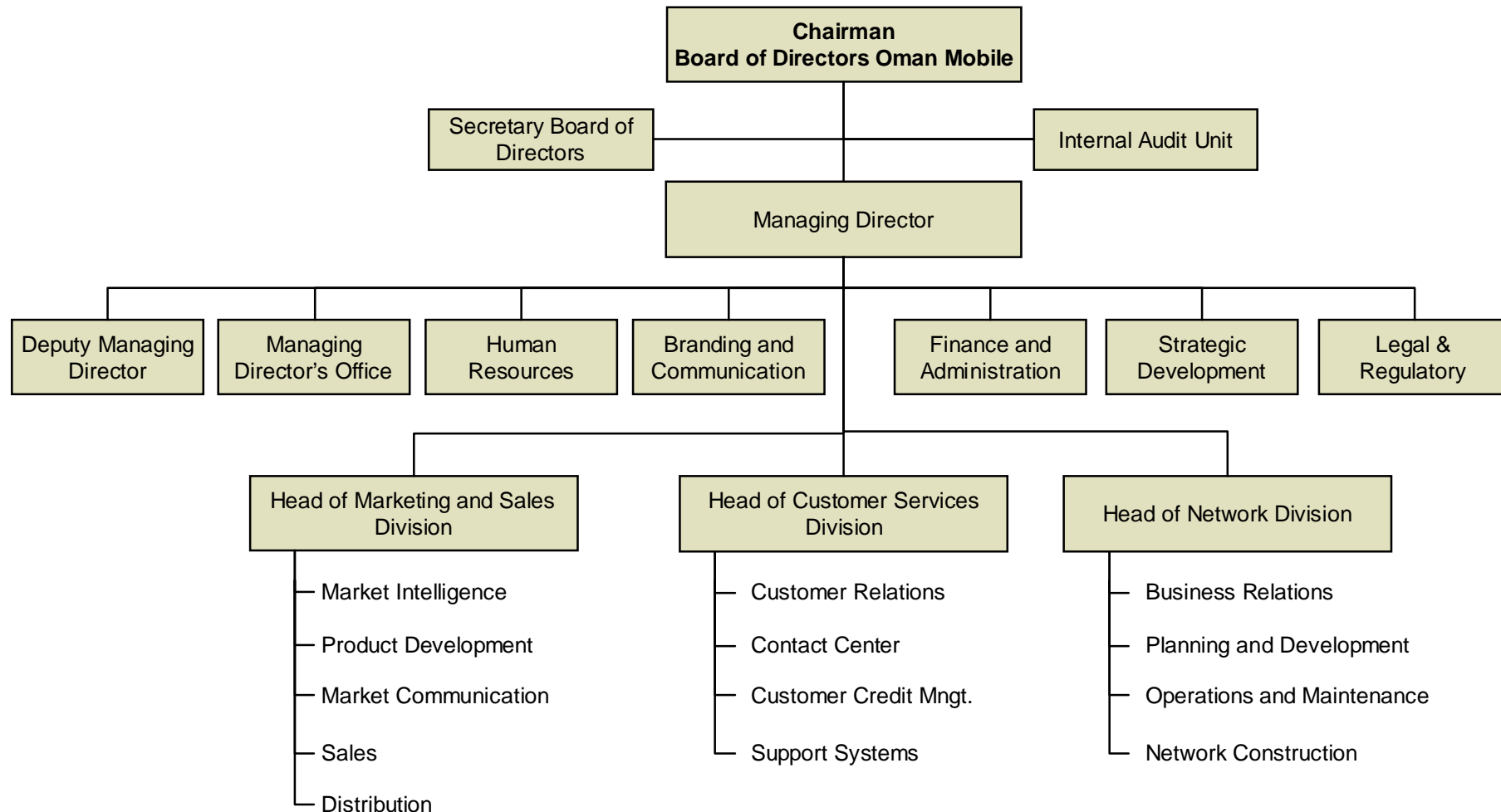


Sources: Omantel Org Chart Feb 2005



Oman Mobile organization is structured around three divisions, namely Marketing and Sales, Customer Services and Network

Oman Mobile Organization Chart



Sources: Oman Mobile chart – Nov 2004



There are differences between Omantel and Oman Mobile organization structures, in terms of the levels of different functions

Comparison of Omantel and Oman Mobile Organizations

	Omantel	Oman Mobile	Comments
Customer Facing Functions	Level 1 Separate Marketing and Customer Service divisions	Level 2 Combined Marketing and Customer Service units	4 Oman Mobile organization seems to reflect a higher emphasis on marketing and customer service (direct report to MD, separate divisions)
Network Functions	Level 1	Level 1	4 In both Omantel and Oman Mobile, Network is a level 1 function
Support Functions	Level 1 and 2 Under the same VP as Marketing and Customer Service	Level 1	4 In Omantel, some support functions (Finance and HR) are under the same VP as Marketing and Customer Service 4 In Oman Mobile, they are all separate and at the same level

	Omantel	Oman Mobile
Level Definitions		
Level 0	Executive President	Managing Director
Level 1	VP, other direct reports	Head of Divisions
Level 2	Reporting to President direct reports	Reporting to MD direct reports



The main areas of interaction between Omantel and Oman Mobile are today in Network, Customer Service and Finance

Interaction between Omantel and Oman Mobile

Function	Current Interaction	Description	Possible Future Interaction	Description
Network and Technology	r	<ul style="list-style-type: none"> 4 Omantel undertakes the switching and IN O&M of Oman Mobile 4 Oman Mobile uses Omantel's transmission network 	v	<ul style="list-style-type: none"> 4 Oman Mobile could eventually aim at independently managing its O&M 4 Oman Mobile is likely to continue to use Omantel's transmission network
IT	r	<ul style="list-style-type: none"> 4 Oman Mobile uses Omantel's billing system (with a specific yearly fee) 	a	<ul style="list-style-type: none"> 4 Plans are for Oman Mobile to manage the call center for both units, and for Omantel to manage the billing system for both units
Marketing	v	<ul style="list-style-type: none"> 4 Totally separate functions 	r	<ul style="list-style-type: none"> 4 Level of coordination to develop joint products, e.g., Wi-Fi (Omantel) combined with GPRS (Oman Mobile), fixed-mobile bundles for business segment
Customer Service	r	<ul style="list-style-type: none"> 4 Oman Mobile uses Omantel customer service shops 	R	<ul style="list-style-type: none"> 4 There would be one call center managed by Oman Mobile
Finance	a	<ul style="list-style-type: none"> 4 Omantel manages all the financial aspects of both units (including auditing) 	Undefined	<ul style="list-style-type: none"> 4 Mobile could eventually have plans for higher independence
HR	v	<ul style="list-style-type: none"> 4 Oman Mobile reliance on Omantel mainly for payrolls 	e	<ul style="list-style-type: none"> 4 Total separation seems to be envisioned in the mid-term
Procurement	r	<ul style="list-style-type: none"> 4 Oman Mobile reliance on Omantel for execution of procurement process 	Undefined	<ul style="list-style-type: none"> 4 Mobile could eventually have plans for separation
Strategic Planning	v	<ul style="list-style-type: none"> 4 Separate strategic planning processes 	r	<ul style="list-style-type: none"> 4 Coordination is necessary for overall business objective definitions

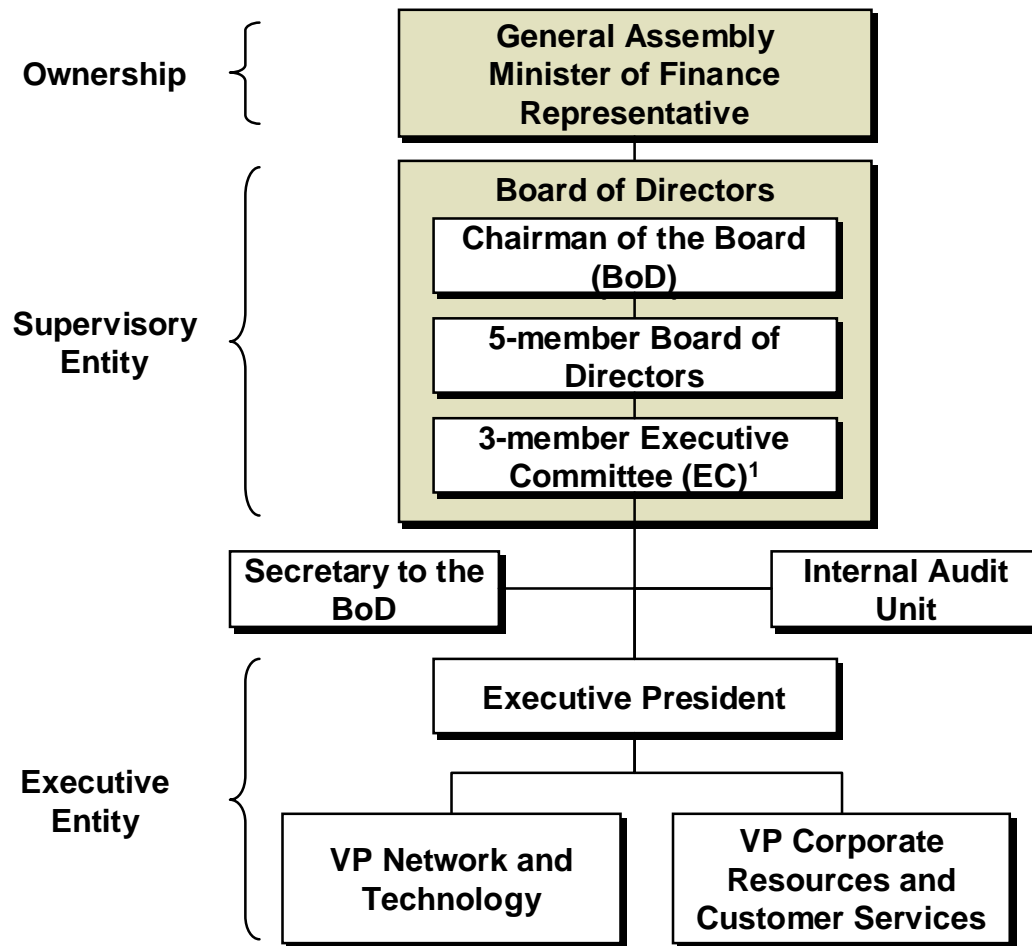
Sources: Omantel and Oman Mobile interviews

Level of Interaction Low High



Omantel Board of Directors is formed of six members from different Ministries and the Tender Board

Current Omantel Corporate Governance

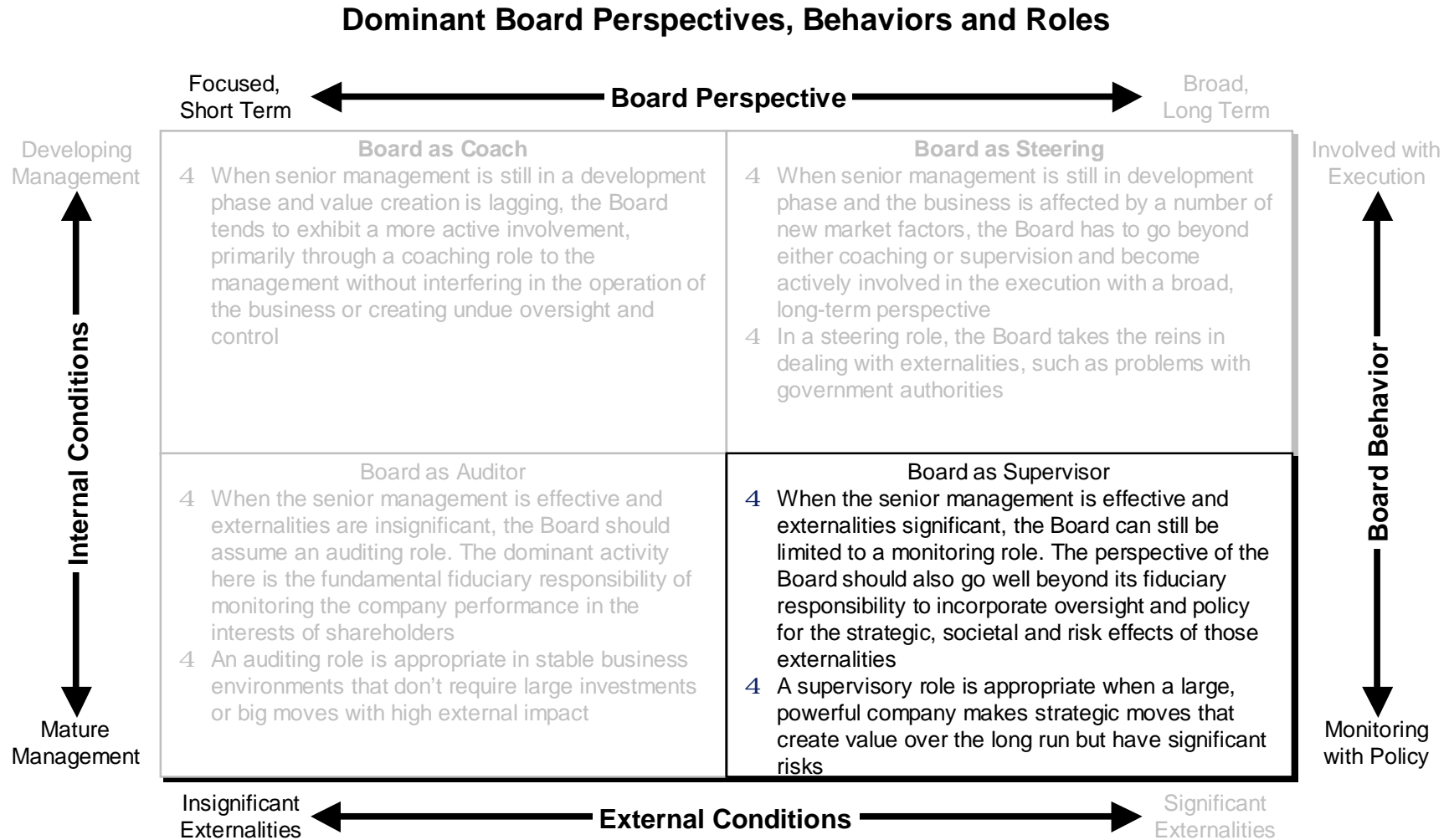


Supervisory Structure	
4	Omantel is fully owned by the government (Ministry of Finance)
4	The chairman of the Board is the Minister of Telecommunications, who is also the chairman of the TRA
4	The vice-chairman is the under-secretary to the Minister of Finance
4	Omantel Executive President sits in the Board of Directors
4	In addition to the chairman and vice-chairman, there are representatives from: <ul style="list-style-type: none"> - Ministry of Information - Ministry of Defense - Tender Board
4	3 members from the Board are chosen as members of the EC: <ul style="list-style-type: none"> - Vice-chairman of the Board (Chairman of the EC) - Omantel Executive President - Tender Board Representative
4	The EC is delegated with large decision making capability: <ul style="list-style-type: none"> - Meets regularly (~10 times a year) or on appointment to review performance, facilitate financial approvals beyond the president's limit, and make decisions - Informs Board of decision for final approval
4	A dedicated Secretariat organizes the activities of the Board and monitors the compliance with statutory and listing compliance

Note: (1) The members of the Executive Committee are selected from among the members of the Board



Operating in an environment with significant externalities and in the presence of a mature executive management, the Board seems to have been assuming a “Supervisor” role



Source: Adapted from Sloan Management Review 2004



Omantel BoD is involved in most important business decisions

Omantel Approval Authorities

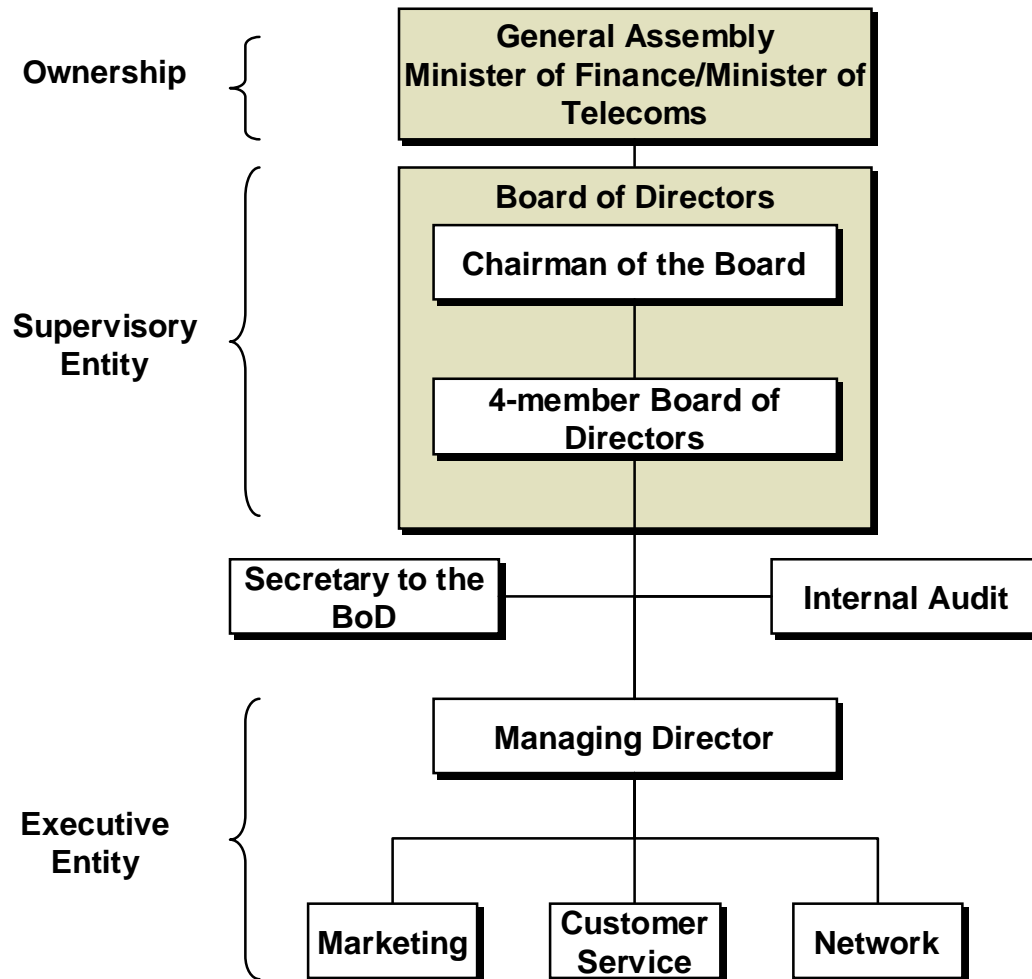
Area	Omantel BoD	Executive Committee	Tender Board	Omantel Management	Comments
Strategic Planning and Budgeting	ü				<ul style="list-style-type: none"> 4 Omantel BoD usually meets four times a year 4 The Executive Committee meets around 10 times a year 4 Decisions are first approved by the Executive Committee 4 For capital expenditures, Omantel is currently developing an authority matrix 4 For pricing, the Executive Committee has allowed some flexibility for Omantel management to change prices, in specific instances
Sale of Assets	ü				
Regulatory Issues	ü	ü			
Strategic Partnerships	ü	ü			
Tenders > OMR 0.5 Million			ü		
Pricing	ü	ü			
Specific pricing changes (promotions, special discounts)				ü	
Organizational and Compensation Changes	ü	ü			

Source: Omantel interviews



Oman Mobile Board of Directors is formed of five members from Omantel and the Ministry of Finance

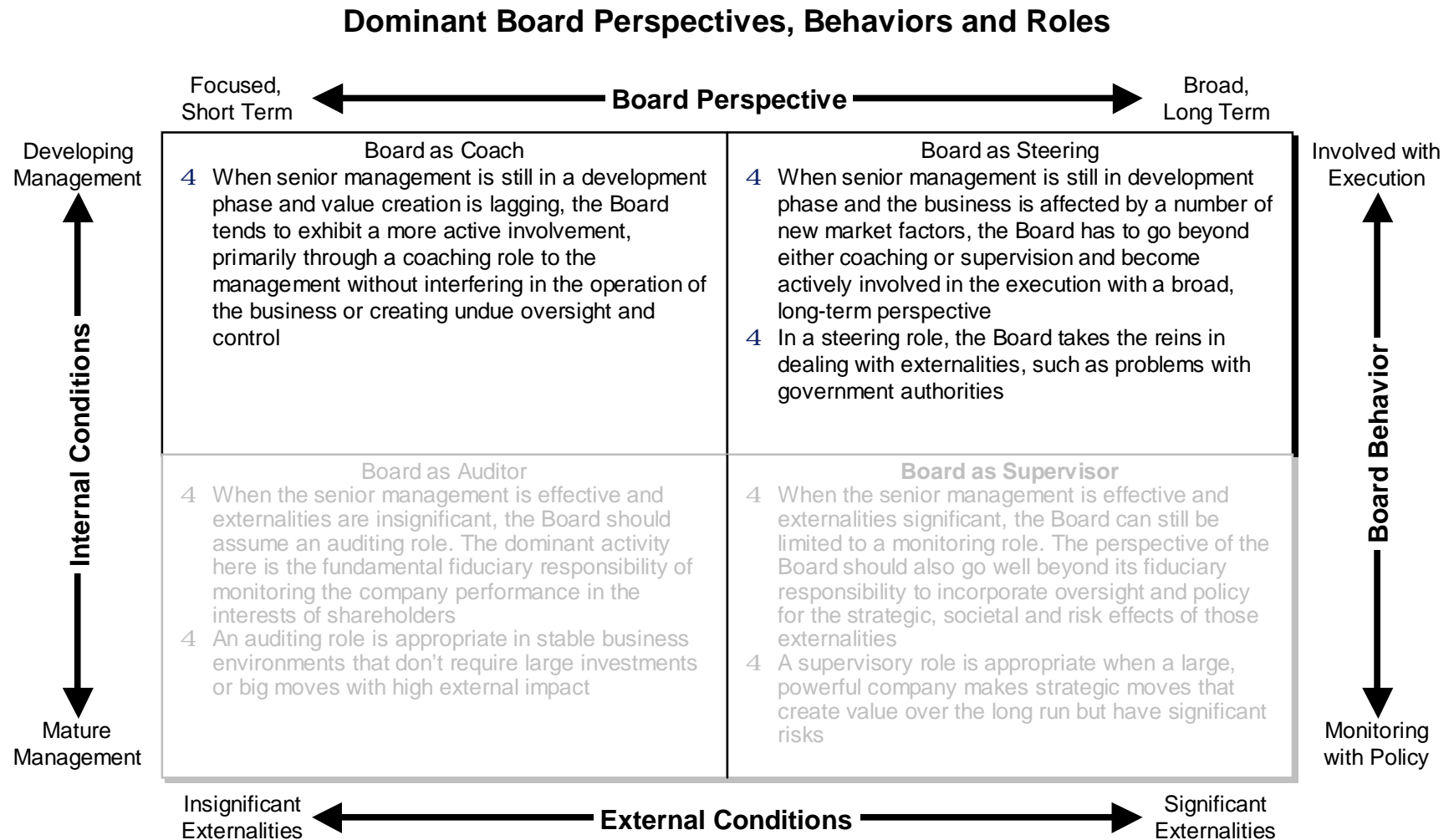
Current Oman Mobile Corporate Governance



- | Supervisory Structure | |
|-----------------------|--|
| 4 | Oman Mobile is owned at 99% by Oman Mobile and 1% by the Ministry of Finance |
| 4 | General Assembly is formed of the Minister of Finance and the Minister of Telecoms |
| 4 | The chairman of the board is the Executive President of Omantel |
| 4 | The Board is formed of 4 members in addition to the chairman: <ul style="list-style-type: none"> - Oman Mobile Managing Director - Omantel VP Networks and Technology - Omantel Secretary of the Board - A representative of the Ministry of Finance |
| 4 | The Internal Audit unit, which has been appointed in February 2005, is formed of three members: <ul style="list-style-type: none"> - Omantel VP Networks and Technology - Omantel Secretary of the Board - A representative of the Ministry of Finance |
| 4 | A dedicated Secretariat organizes the activities of the Board and monitors the compliance with statutory and listing compliance |



Currently, Oman Mobile Board of Directors seems to play both a coaching and steering role



Source: Adapted from Sloan Management Review 2004



In particular, the board is involved in most aspects of the business, meeting with the management on a regular basis

Oman Mobile Approval Authorities

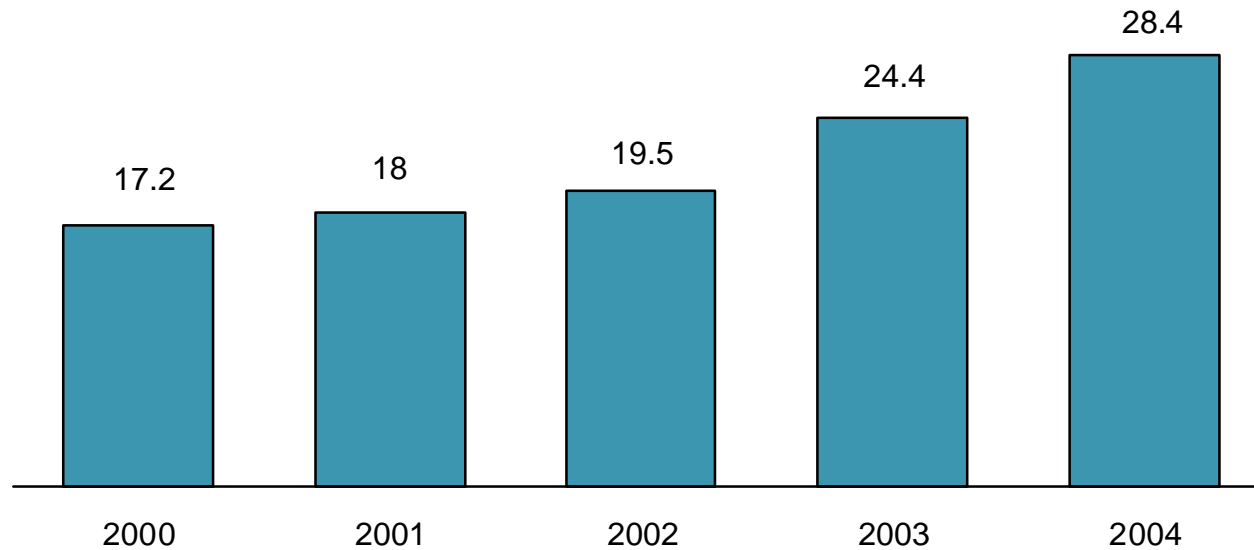
Area	General Assembly	Oman Mobile BoD	Oman Mobile Management	Comments
Strategic Planning and Budgeting	ü			<ul style="list-style-type: none"> 4 Oman Mobile met 12 times in 2004 and already 3 times in 2005 4 The board expects a weekly report on Oman Mobile indicators upon competitor entry, from network to customer service indicators 4 All important decisions are taken at the board level 4 The BoD acts as an executive committee and is very responsive to management requests (for meetings, approvals). This is perceived as being part of the preparation to competitor entry 4 As a result of this responsiveness, this model has guaranteed a high decision-making speed 4 The role of the board could evolve to a less executorial one, as market conditions stabilize
Sale of Assets	ü			
Regulatory Issues		ü		
Strategic Partnerships		ü		
Investment and Projects > OMR 2 Million		ü		
Investment and Projects < OMR 2 Million			ü	
Pricing (any change in pricing)		ü		
Organizational and Compensation Changes		ü		

Source: Oman Mobile interviews

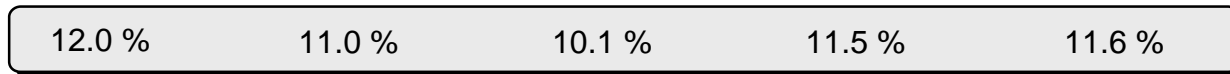


Omantel's Personnel costs have increased in line with total revenues over the past years

Personnel Costs
(in OMR Million)
(2000-2004)



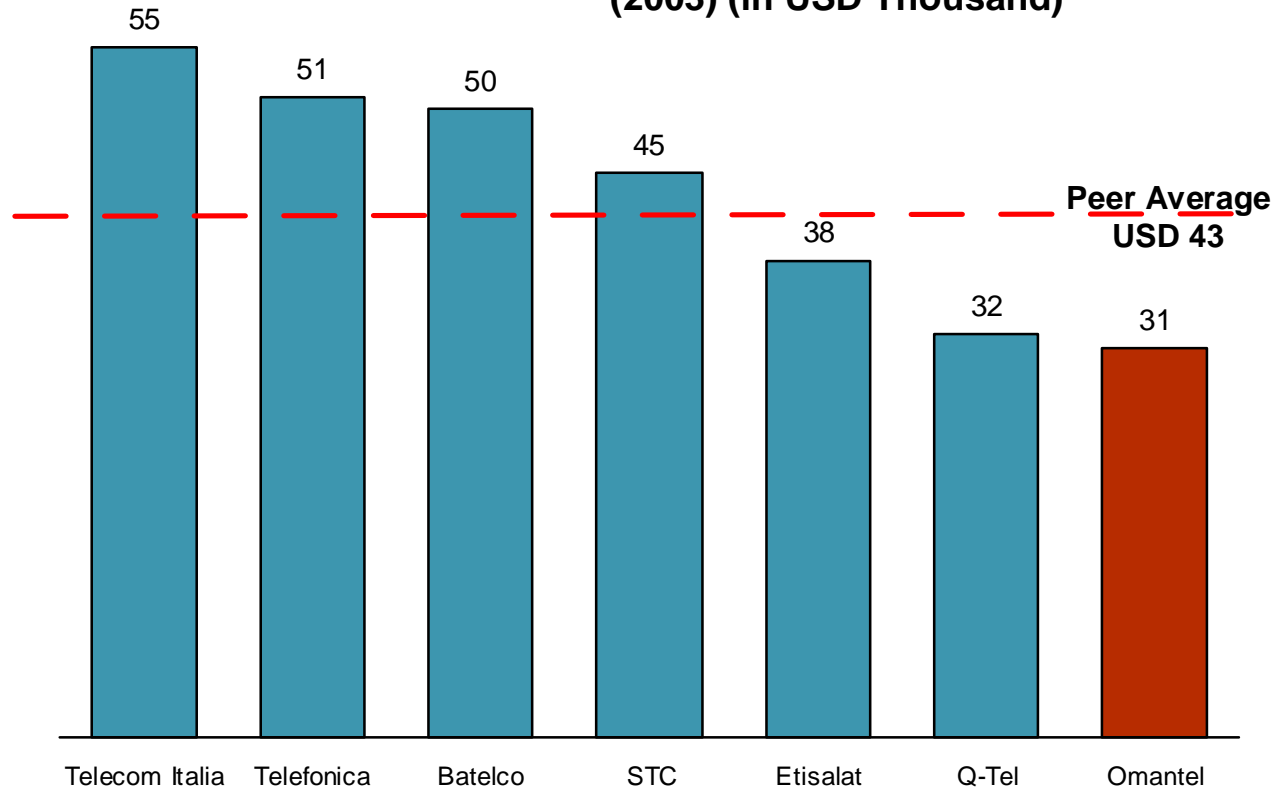
Personnel Cost
as Share of
Revenues





Compared to benchmarks and to GDP per Capita, annual cost per employee is relatively low

Annual Cost per Employee (2003) (in USD Thousand)



Comments

4 Competition may potentially lead to increase in salaries, especially for key positions to attract and retain the best people from leaving to competitors

Employee Cost / GDP per Capita

260%	320%	450%	520%	170%	160%	110%
------	------	------	------	------	------	------

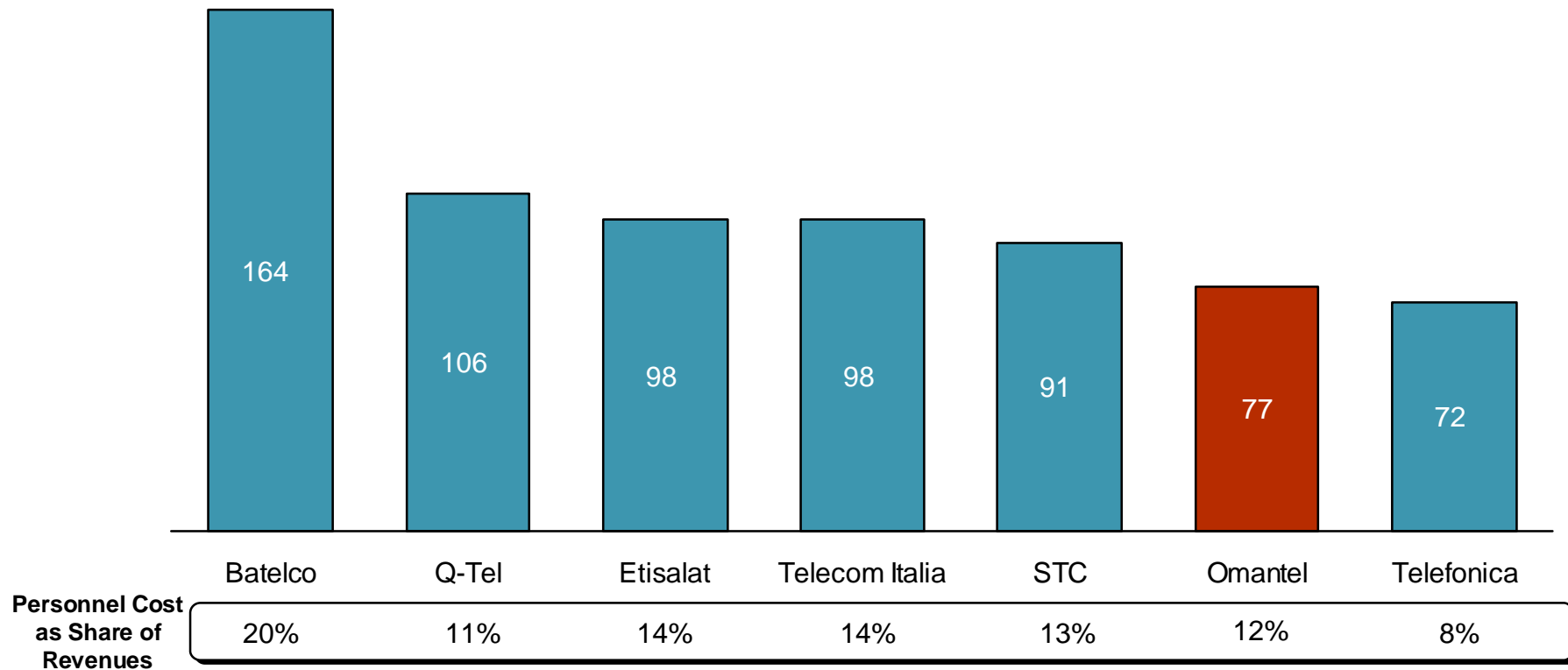
Peer Average 284%

Sources: Annual reports 2003; Omantel Budget; Booz Allen analysis



A comparison of personnel costs per line shows that Omantel employee costs are relatively low

Personnel Costs/Line⁽¹⁾
(2003) (in USD)

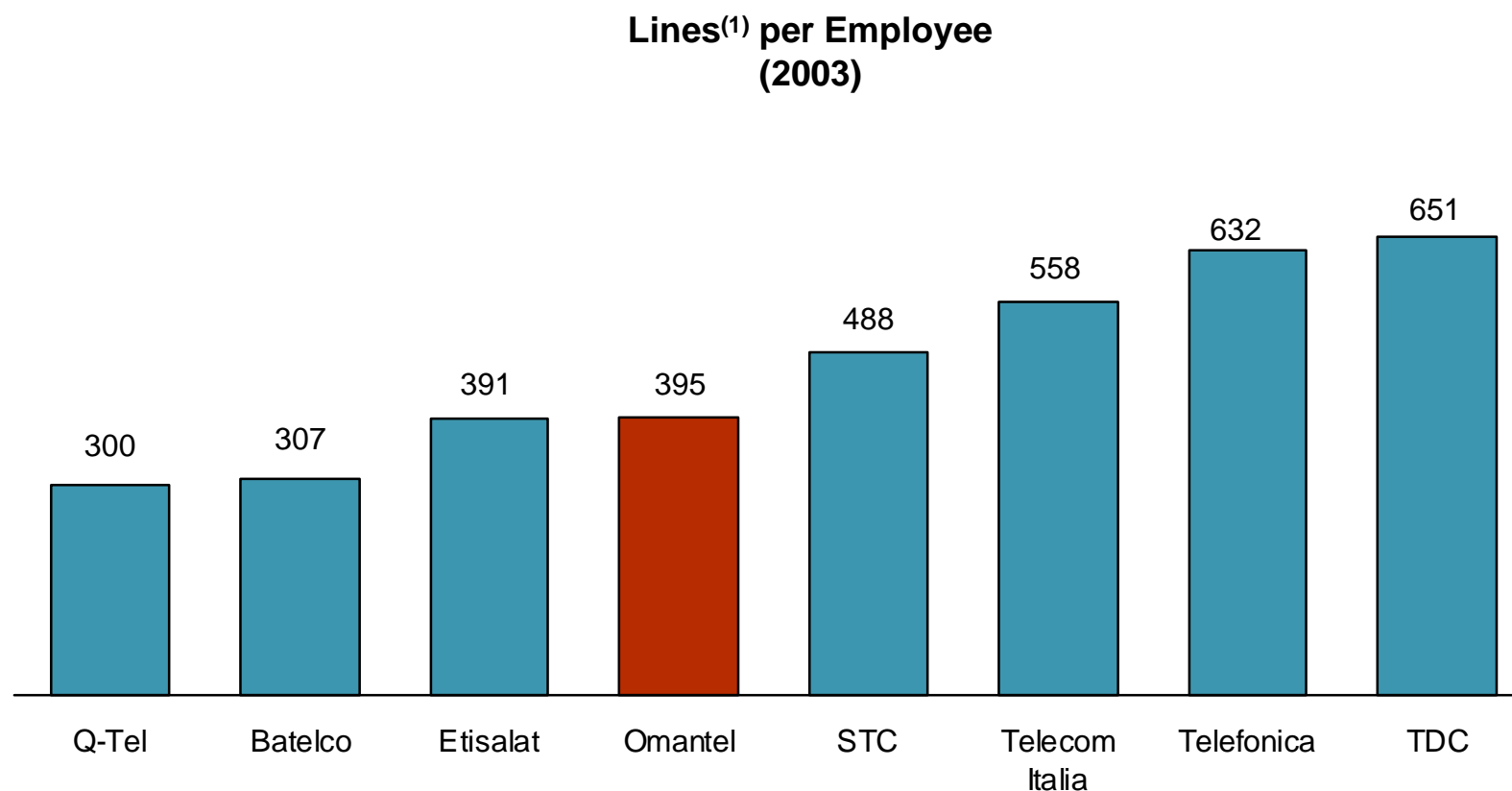


Note: (1) Based on total operator's Fixed and Wireless lines (subscribers)

Sources: Annual reports 2003; Omantel Budget 2005; Booz Allen analysis



However, a comparison of lines per employee suggests potential opportunities for efficiency improvements



(1) Based on total operator's Fixed and Wireless lines (subscribers) – TDC, 2004 number

Sources: Annual reports 2003, Omantel Budget 2005; Booz Allen analysis



Currently, Omantel is running a traditional PSTN network and Oman Mobile a 2.5G network, with, in both cases, multiple vendors

Current and Planned Network Resources

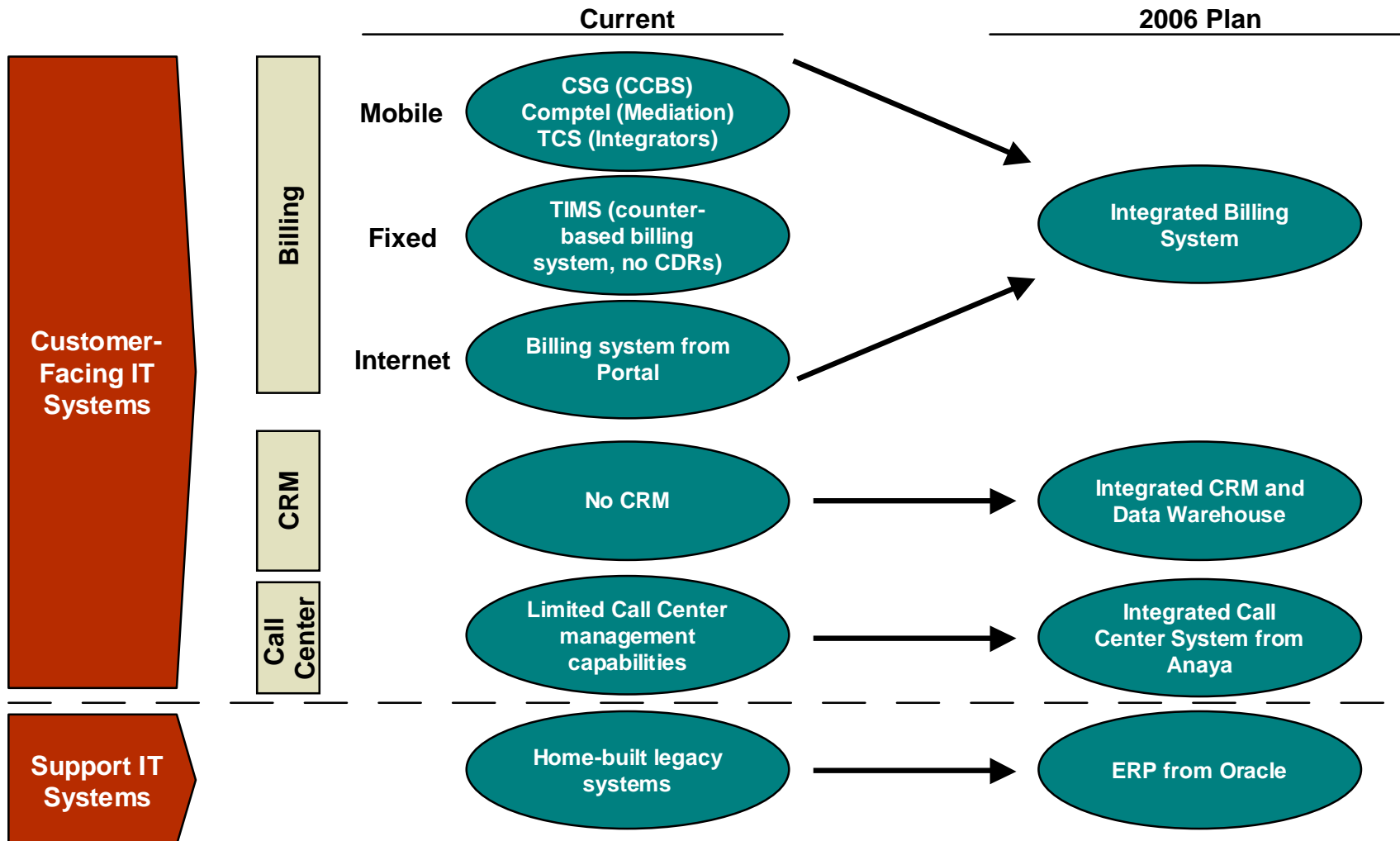
	Fixed Network	Mobile Network
Current Stage	<p>Core: ATM Switching: TDM Switches Access: POTS and Broadband ADSL</p>	<p>2.5G (GSM, GPRS)</p>
2004 Subscribers	<p>240,000 phone lines Very limited number of ADSL subscribers (service just launched)</p>	<p>830,000 GSM Subscribers Limited number of GPRS subscribers</p>
Nodes and Vendors	<ul style="list-style-type: none"> 4 Switching <ul style="list-style-type: none"> - Siemens and Ericsson switches - Alcatel access nodes 4 Transmission <ul style="list-style-type: none"> - SDH: Nortel, Huawei, Siemens, Ericsson - DWDM: Huawei 4 ATM Core network: Alcatel 4 ADSL: Siemens and Alcatel 4 Internet: Cisco, Huawei 	<ul style="list-style-type: none"> 4 HLR: Siemens, Ericsson, Huawei (with plans to move to one Huawei HLR) 4 NSS: Siemens, Ericsson 4 IN (including prepaid): Siemens 4 GPRS (SGSN and GGSN): Siemens and Ericsson 4 BSS: Ericsson, Motorola, Siemens
Evolution Plans	<p>No clear plans as of yet to move to NGN Strategic workshop results expected to pave the way for such plans</p>	<p>Plan to move to 3G in a one-year timeframe Tendering process underway for vendor selection</p>

Source: Omantel and Oman Mobile interviews



There are clear plans to improve IT capabilities, in an integrated fashion, over the coming year

Current and Expected IT Resources



Source: Omantel and Oman Mobile interviews

Appendix-7

Sample progress reports

Oman Telecommunications
Company (S.A.O.C)
Corporate Development Division



الشركة العمانية
للاتصالات (ش.م.ع.م)
قطاع التطوير التجاري





Program Office Unit	
Projects Status Report	
Month(s)	February 2006
Report Ref#	2006-02-POU
Last updated	28 th February 2006

Section (1)	Pre Contract Signature	Contract	Page
1	Flood Disaster in SAL-2	N/A	2-4
1.1	Milestones		2
1.2	Work Progress		2
1.3	Summary & Concems		4
2	Sohar Port Community System (PCS)	N/A	5-6
2.1	Milestones		5
2.2	Work Progress		5
2.3	Summary & Concems		6
3	LRIC Consultancy for Omantel & Oman Mobile	N/A	7-9
3.1	Milestones		7
3.2	Work Progress		8
3.3	Summary & Concems		9
4	Directory Enquiry Services	N/A	10-12
4.1	Milestones		10
4.2	Work Progress		11
4.3	Summary & Concems		12
Section (2)	Post Contract Signature		13-34
1	Motorola GSM Expansion	2005 (082/012/ 073/ 074)	14-16
1.1	Milestones		14
1.2	Work Progress		15
1.3	Summary & Concems		16
2	Motorola GSM Expansion Phase 8	209-2005	17-19
2.1	Milestones		17
2.2	Work Progress		18
2.3	Summary & Concems		19
3	Ericsson GSM Expansion – Supplementary	128-2004	20-21
3.1	Milestones		20
3.2	Work Progress		20
3.3	Summary & Concems		21
4	Siemens Phase 3 Expansion	241-2005	22-24
4.1	Milestones		22
4.2	Work Progress		23
4.3	Summary & Concems		24
5	EE/TN/DWDM (Dense Wavelength Division Multiplexing)	05-2003	25-27
5.1	Milestones		25
5.2	Work Progress		26
5.3	Summary & Concems		27
6	ERP Project – Oracle eBusiness Suite	026/027-2005	28-30
6.1	Milestones		28
6.2	Work Progress		29
6.3	Summary & Concems		30
7	Design of Omantel Head Quarter Complex	173-2005 & 112-2002	31-32
7.1	Milestones		31
7.2	Work Progress		31
7.3	Summary & Concems		32

8	Customer Contact Centre – Al-Hail	015-2005	33-34
8.1	Milestones		33
8.2	Work Progress		34
8.3	Summary & Concerns		34

Section (3)	Completed Projects		35
1	Siemens GSM Expansion	192-2003	35
2	Ericsson GSM Expansion Phase 6	111-2003	35
3	Motorola GSM Expansion	168-2003	35
4	Oman Mobile Head Quarter Building (Internal Work)	105-2004	35
5	Oman Mobile Head Quarter Building (External Work)	236-2004	35
6	Construction of First Floor – Exchange Building at Sur	013-2005	35
Section (4)	Appendices		
1	Program Office Projects Financials		Appendix 1

Legend

#	Item	Description
1		1 Milestone Progress ▶ Amount of work Completed (20 %) ▶ Amount of work Remaining (20%)
2		Risk Factor: HIGH MEDIUM LOW
3		Concern: HIGH MEDIUM LOW
4	Overall Status	Overall Project Progress 1. Ahead of Schedule 2. On Schedule 3. Behind Schedule
5		Overall Milestone Achievement ▶ Amount of work completed (10 %) ▶ Amount of work Remaining (10 %)
6	Project Phases * (See Below Model)	The completed phases are marked in *BLUE* . The on going phases are marked in *RED* .

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Document Control

Change Record: Section (1)- Pre Contract Signature Projects				
#	Date:	Record Changed by:	Reference:	
1	25-Feb-06	Nasser Al-Shibli	Flood Disaster in SAL-2	
2	28-Feb-06	Yousuf Al-Mohammed	Sohar Port Community System	
3	28-Feb-06	Osama Bakir	LRIC Consultancy for Omantel & Oman Mobile	
4	25-Feb-06	Fida Al-Balushi	Directory Enquiry Services	
Change Record: Section (2)- Post Contract Signature Projects				
#	Date	Record Changed by:	Reference:	Contract
1	28-Feb-06	Yasser Qatan	Motorola GSM Expansion (Motorola- Siemens- Tawoos – MDS)	2005 (082/ 012/ 073/ 074)
2	27-Feb-06	Fida Al-Balushi	Motorola GSM Expansion	209-2005
3	28-Feb-06	Sabah Al-Ismaili	Ericsson GSM Expansion – Supplementary	128-2004
4	28-Feb-06	Sabah Al-Ismaili	Siemens Phase 3 Expansion	241-2005
5	27-Feb-06	Fida Al-Balushi	EETN/DWDM (Dense Wavelength Division Multiplexing)	005-2003
6	28-Feb-06	Asmahan Al-Mazrui	ERP Project – Oracle eBusiness Suite	026/027-2005
7	25-Feb-06	Nasser Al-Shibli	Design of OmanTel Head Quarter Complex	173-2005 & 112-2002
8	28-Feb-06	Fida Al-Balushi	Customer Contact Centre – Al-Hail	015-2005

Program Office Unit: Report Reviewers		
#	Name	Position
p	Abdullah Al-Busaidi	Director Program Office Unit
p	Yasser Bakhit Qatan	Manager Program Management Department
p	Osama Bakir	Manager Support & Processes Department
p	Asmahan Al-Mazrui	PM Processes Specialist

Distribution	
Copy #	Sent to:
1	Executive President
2	Vice President Networks & Technology
3	Vice President Corporate Resources & Customer Services
4	Division Head Corporate Development
5	Division Head Finance

Section (1)		
Pre Contract Signature Projects (Pages 2-9)		
1	Flood Disaster in SAL-2	2-4
1.1	Milestones	2
1.2	Work Progress	2
1.3	Summary & Concerns	4
2	Sohar Port Community System (PCS)	5-6
2.1	Milestones	5
2.2	Work Progress	5
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3.3	Summary & Concerns	9
4	Directory Enquiry Services	10-12
4.1	Milestones	10
4.2	Work Progress	11
4.3	Summary & Concerns	12

1.

Last updated	25-Feb-06
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Project Name	Flood Remedial Measure & Maintenance Work at Premises of Telecom Building in Dhofar Governorate	Owner	Omantel
Start Date	29-Jan-05	Class	Maintenance
Planned Finish	13- Aug -05	Project Status	Delayed – Contract with Consultant in cancellation process
Consultant	Ba'alawi Engineering Consultancy	Contract Value	4,550 R.O
Ext	N/A	Var. Order	N/A
Project Manager	Sabah Al-Ismaili ☪ Nasser Al Shibli		

Project Description	Consultancy service for the flood remedial measure at nine telecom buildings in Dhofar Governorate
Scope of Consultant	1- Survey, assess, maintenance work. 2- preparing the design details, drawing, scope of work and tender documents for the contractors for the nine Premises of Telecom Building in Dhofar Governorate

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Stage 1: Preparation of Scope of Work for the consultancy services to carry out Civil and Electromechanical at the following premises for Salalah-2, Salalah-3, Salalah-4, Qairoon Hairiti and Thumrait.	▶▶▶▶▶	31-Jan-05	31-Jan-05	
T-2	Stage 2: Call for quotations and award consultancy contract.	▶▶▶▶▶	15-Mar-05	20-Jun-05	
T-3	Stage 3: Prepare scope of work by the consultant regarding the work to be executed.	▶▶▶▶▶	28-Aug-05	01-Aug-05	
T-4	Stage 4: Preliminary & design details of drawings with tender documents should be submitted by the consultant.	▶▶▶▶▶	03-Aug -05 19-Nov-05	The contract is terminated	○
T-5	Stage 5: Call for quotations and awarding the work to the contractors.	▶▶▶▶▶	30-Sep-05 31-Dec-05	The contract is terminated	○

T-6	Stage 6: Termination of the Consultant service.	▶▶▶▶▶	10-Dec-05	17-Dec-05	
T-7	Stage 7: Preparation of Scope of Work & doing the project in-house(<i>Design & supervision</i>)	▶▶▶▶▶	11-Dec-05	11-Jan-06	
T-8	Stage 8: Preparation of BOQ documents to be submitted for 8 premises Telecom. Building.	▶▶▶▶▶	25-Dec-05	10-Jan-06	
T-9	Stage 9: Call for quotations	▶▶▶▶▶	4-Feb-06	4-Feb-06	
T-10	Stage 10: Evaluation of the bidders	▶▶▶▶▶	11- Mch-06		

1.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-4	On 15 Nov 05, meeting held in Salalah with the consultant in order to accelerate the project to submit the tender documents	Completed	03-Aug-05 19 –Nov-05	26-Nov-05
	▶▶▶▶▶			
T-4	Termination of consultant service letter issued to the legal Dept/ waiting for the response.	Completed	31-Dec-05	31-Dec-05
	▶▶▶▶▶			
T-5	Completed Bill of Quantities for the project in-house & sent for floating the tenders.	Completed	07-Jan-06	16-Jan-06
	▶▶▶▶▶			
T-5	Call for a fresh quotation & collected it	Completed the floating & the bidders submit the Quotations on 20-Feb-06	04- Feb-06	20-Feb-06
	▶▶▶▶▶			
T-6	Cancel the LSO & Negotiate with consultant.	In Progress with service dept.	N/A	
	▶▶▶▶▶			
T-10	Evaluation of the bidders	In Progress	11- Mch-06	
	▶▶▶▶▶			

2.

Last updated	28-Feb-06
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Project Name	Sohar Port Community System (PCS)	Owner	Omantel
Start Date	N/A	Class	Information Systems
Planned Finish	Forecasted Phase 1 on 30-Nov-2006	Project Status	Feasibility Study
Project Manager	Osama Bakir/ Yousuf Yaqoob Al Mohamed		

Project Description	To develop and provide the Sohar Industrial Port Company (SIPC) a Port Community System (PCS) to enable electronic Data Exchange and e-Commerce among port user community and the national and international enterprises.
Proposed Scope	The development of PCS is a continuous process. The architecture of the PCS will therefore be able to accommodate a growing number of applications. The first Phase is forecasted to be Ready on 31-Mar-2006. Data Exchange will be possible with the following IT systems: 1. Vessel Notifications System (SIPC Harbor Master Office) 2. Customs Clearance (ROP) 3. Shipping Agent's Systems (shipping Line Systems) 4. Terminal Operator system The other phases will follow after the completion of phase 1.

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
D-1	Signing the MOU with the Sohar Industrial Port Company	▶▶▶▶▶	15-Aug-05	15-Aug-05	
D-2	Complete the Feasibility Study, analysis and approval.	▶▶▶▶▶	20-Sep-05	20-Sep-05	
D-3	Signing the MOU with Crimson Logic	▶▶▶▶▶	01-Oct-05	01-Oct-05	


Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Float Tender and receive offers. The Go-NO-Go decision has not yet been finalized	▶▶▶▶▶	10-Oct-05 30-Dec-05 30-Jan-06 30-Mar-06		○
T-2	Evaluation and Awarding the contract.	▶▶▶▶▶	30-Oct-05 01-Jan-06 01-Mar-06 01-May-06		○

2.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T1.3	Business Case is completed and Presented to SIPC with draft agreement for feedback	Completed	24-Dec-05 10-Jan-06	13-Feb-06
T1.4	SIPC provided quick presentation with Rotterdam in order to detail the scope of work. Planned to submit their final presentation and more in depth details on 01-Mar-06 to Omantel.	SIPC to develop the breakdown scope details for further simple implementation	01-Mar-06	
T1.5	Planned to have a further mutual understanding and GO-AHEAD decision from Omantel Management and SIPC	Meeting between Omantel EP and SIPC CEO occurred on 19-Dec-05 GO-AHEAD Depends on how fast they provide Item in T 1.4	15-Dec-05 19-Dec-05 20-Jan-06 20-Feb-06 10-Mar-06	
T2	Preparing the Tender Documents and floating it prior to 15-Oct-05 Final requirements was submitted as of 29-Oct-2005 Plan to arrange for completing the Contract Document and Float the tender (Single Bid is an option)	Awaiting management decision (ref. T1.5)	15-Oct-05 20-Nov-05 30-Jan-06 25-Feb-06 10- March-06	

2.3 Summary & Concerns

Overall Project Achievement		Overall Schedule Status	Tentative Schedule will be impacted by the delays of the GO-AHEAD decision, completing the contract documents and signature.
Changes	N/A		
Concerns			
1.	T-2 Required Action	Ability to float and award the contract on time. This may delay the startup of the project -Receiving and approving the final scope in order to float the tender in a timely manner, or otherwise agree on single bid Format. -Scope has been submitted as of 29-Oct. required to complete the Tender document and float Tender in order to get the contract awarded (Single Bid or multiple) - Getting the GO-AHEAD decision ASAP.	
Other Remarks			
1.	T4	- Meeting between Omantel EP and SIPC CEO was on 19-Dec-05 and they agreed to meet HE the Minister before taking any further action for GO/NO GO and involvement of SIPC.	
2.	T4	- On a meeting held on the 24-Dec-2005 , SIPC the suggested the involvement of Rotterdam Port in the technical part of the project due to their experience as partners of SIPC. This may delay and change the tendering process. The GO Ahead with the project depends on Remark 1 and a presentation by Rotterdam Port sometime in the 2 nd half of January-06. - 31-Jan-06 No news yet about the results of the meeting and yet to finalize such outcomes in the month of Feb-2006. - SIPC has met the HE Minister alone and his direction was to consult with Omantel (as per SIPC). - On 13-Feb-06 SIPC has met with Omantel and agreed that SIPC provide detailed stage scoping in order to implement the project in simple smooth phases by 1-march-06 as per (Ref. T1.4).	

3.

Last updated	28-Feb-06
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Project Name	LRIC Consultancy for Omantel LRIC Consultancy for Oman Mobile	Owner	Omantel Finance Department
Start Date	TBD – Tender 39-2005 & Tender 40-2005. Not Signed yet. LOA is Forecasted on 20-Feb-06	Class	Consultancy-modeling
Planned Finish	Not yet signed. Project Duration is 6 months. Expected to start on 01-Mar-06	Project Status	Tendering
Project Manager	Mohammed Al-kindī – Osama Bakir		

Project Description	Consultancy service for implementing a Long Run Incremental Cost (LRIC) system for Omantel and Oman Mobile
Proposed Scope	TRA requires Omantel as an incumbent operator to calculate the interconnection costs based on Long Run Incremental Cost within two years from the effective date of license (Feb-2004). Oman Mobile is also required to produce LRIC-based information. Current operational model is based on Fully Distributed Cost (FDC) using OROS accounting package. There is, therefore, the need for Omantel to develop the capability for their costing models to support the calculation of interconnection tariffs based on LRIC. Additionally, LRIC model will be used by management in relation to retail services for performance management, business support and overall business planning capabilities.

3.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
DD-1	Invited several vendors for presentations and information collection Developed, prepared and Completed LRIC scope of Work for tendering.	▶▶▶▶▶	01-Sep-05 20-Sep-05	01-Sep-05 30-Sep-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Floating a tender with limited vendors (8) Receiving Offers from vendors	▶▶▶▶▶	30-Sep-05 13-Nov-05	30-Sep-05 13-Nov-05	
T-2	Form the Team members of Steering committee, Evaluation and Project Management	▶▶▶▶▶	30-Oct-05	30-Oct-05	

T-3	The evaluations of the technical and commercial parts completed and sent to tender committee for approval.	▶▶▶▶▶	01-Dec-05	12-Dec-05	
T-4	TRA data requirement Provide the best possible update on all aspect of Omantel network and submit it to TRA. Further update will be submitted on 30-Jan-06	▶▶▶▶▶	20-Dec-05	24-Dec-05	
T-5	TRA requested for Further Clarifications which have been planned to be completed and submitted on 30-Jan-06	▶▶▶▶▶	30-Jan-06	31-Jan-06	
T-6	Awaiting the Tender Board Signature of the final recommendation for the Winning Vendor. Forecasted to get the final LOA on 20-Feb-06	▶▶▶▶▶	20-Feb-06 10-Mar-06		

3.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-2	Waiting for offers from vendors within three weeks. This has been postponed till 11-Nov	Completed	20-Oct-05 13-Nov-05	13-Nov-05
T-3	Forming the Steering committee Team Forming Implementation Team Awaiting finance for their final nominations. Khurshid is to submit latest update. Distribute a Circular of All Nominated names for steering committee, evaluation team and project implementation management team	Completed	12-Oct-05 15-Nov-05	30-Oct-05
T-4	TRA submitted a request for data requirements for their own purpose of Cost Modeling consultancy Service. This will need more time than anticipated and the amount of details is yet to be clarified and communicated.	Completed	30-Dec-05 Based on the required details	24-DEC-05
T-5	TRA clarifications are being processed and we will expecting submittal is expected by 31-Jan-06	Completed	30-Jan-06	31-Jan-05
T-6	The evaluation report (technical & commercial) has been completed and submitted to tender committee for approval. Thereafter it will be forwarded to the EP	Completed Tender Committee has raised some clarifications	01-Feb-06	01-Feb-06
T-6	Waiting for the final LOA for the winning Vendor. Forecasted on 20-Feb-06 Further Inquiry from the board regarding the lowest prices, which was communicated to the board based on the fact that the lowest price was not technically qualified. The final evaluation report was still valid and required to be approved in order to issue the LOA	In Progress Date has slipped for another 2 weeks	20-Feb-06 10-Mar-06	

3.3 Summary & Concerns

Overall Project Achievement			Overall Schedule Status	Project is scheduled to be completed within 6 months from the sign off date 01-Dec-2005. Date has been shifted tremendously until 20-Feb-06. Again date has been change d until 10-Mar-06.
Changes		N/A		
Concerns				
1.	N/A			
	Required Action	N/A		
Other Remarks				
1	T-1	Team has formed a kick off meeting on Monday 28-Nov. Completed Action: To establish a central base of communication as well assign and forward related tasks to their owners while managing all activities toward completing these tasks		
2	T-3	Work on expediting the process of contracting after completing the evaluation process and complete the awarding by providing the Letter of Acceptance ASAP. The project duration will be based on the amount of deliverables both Omantel and Oman Mobile are asking for.		
3	T-5	Need to work closely on identifying the needs and requirements from TRA for their own Cost Model. Data has to be organized in an appropriate format that reflects the business model of Omantel and Oman Mobile. TRA Clarifications are being progressed and will be submitted on 30-Jan		
4	T-6	Tendering and awarding process have taken long time. Until today, we have not had the final award being processed and waiting for the final LOA to be released no later than 20-Feb-06. This has caused of course shifting the project completion around 3 months. As of 28-Feb, no further update has happened toward finalizing and approving the final recommendation from the evaluation team. Tender Committee request further clarifications and yet waiting for their reply on accepting the clarifications and approving the final winner.		

4.

Last updated	25-Feb-06
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Project Name	Directory Enquiries Services (198 / 1318)	Owner	Omantel
Start Date	1 st March 2005	Class	Customer Care
Planned Finish	31 st December 2005	Project Status	Completed
Project Manager	Fida Al-Balushi		

Project Description	Outsourcing of the existing Directory Services (198)		
Proposed Scope	Replacing existing call centre for Omantel Directory Enquiry Services by outsourcing to INFOLINE IP Call Centre at Knowledge Oasis Muscat (KOM) RO 4.2 per agent per hour (planned operation of 35 agents on a 24X7 basis over 3 shifts each of 8 hours) Dir Assist H/W RO 68,203/- System Application RO 74,408/- System S/W RO 69,082/-		

4.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	2 x Leased Line between KOM - TCC and KOM – The Building (by Omantel)	▶▶▶▶▶	7 Mar-05	10 Mar-05	
Ex-2	3 x E1 lines (ISDN PRI)between KOM - TCC and Qurum (Omantel)	▶▶▶▶▶	10 Mar-05	08 Mar-05	
Ex-3	IPCC installation(Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-4	DQ/Integration (Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-5	Installation of WTOP client (ITS)	▶▶▶▶▶	05 Mar 05	05 Mar-05	
Ex-6	Training of Infoline Staff (Infoline)	▶▶▶▶▶	14 Mar-05	7 Jul-05	
Ex-7	Go Live with Phase 0 system	▶▶▶▶▶	16 Mar-05	20 Jul-05 24 th Sep-05	
Ex-8	Phase -1 Upgrading Tandem to S7600	▶▶▶▶▶	1 Jun-05	11 Jun-05	
Ex-9	Phase-II SMS and Web enabling	▶▶▶▶▶	15-Feb 06	21 Feb-06	

4.2 Work Progress

Ref.	Issue	Status	Planned completion Date	Actual Completion Date
Ex-1	2 x Leased Lines between KOM - TCC and KOM – Tech Building for connecting Infoline call centre (Omantel)	Completed	7 Mar-05	10 Mar-05
	▶▶▶▶▶			
Ex-2	3 x E1 lines (ISDN PRI)between KOM – TCC and Qurum (Omantel).	Completed	10 Mar-05	8 Mar-05
	▶▶▶▶▶			
Ex-3	IPCC installation (Infoline)	Completed	12 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-4	DQ/Integration	Completed	15 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-5	Installation of WTOP client (ITS)	Completed	5 Mar-05	5 Mar-05
	▶▶▶▶▶			
Ex-6	Training of Infoline Staff	Completed	14 Mar-05	7 Jul-05
	▶▶▶▶▶			
Ex-7	Go Live with Phase 0 system	Completed	16 Mar-05	24 Sep-05
	▶▶▶▶▶			
Ex-8	Phase -1 Upgrading Tandem to S7600 (ITS)	Completed	1 Jun-05	11 Jun-05
	▶▶▶▶▶			
Ex-9	Phase-II SMS and Web enabling (ITS)	Completed	15-Feb-06	21 Feb-06
	▶▶▶▶▶			

4.3 Summary & Concerns

Overall Project Achievement		▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Completed
Changes		N/A		
Concerns				
1.	N/A			
	Required Action	N/A		
Other Remarks				
1.	Ex-8	<p>1) The Web server for the Directory Enquiry Services is ready for the launch and public use. The web links below for both Arabic and English are ready to be used. http://www.omantel.net.om/arabic/info_center/e_directory/default_test.asp http://www.omantel.net.om/e_directory/default_test.asp</p> <p>2) The SMS service integration is completed supporting both Arabic and English languages and tested successfully and further test is continuing. A letter was sent to the DH Customer service to fix a launch date for the above services.</p>		

Section (2)	Post Contract Signature		13-34
1	Motorola GSM Expansion	2005 (082/ 012/ 073/ 074)	14-16
1.1	Milestones		14
1.2	Work Progress		15
1.3	Summary & Concerns		16
2	Motorola GSM Expansion Phase 8	209-2005	17-19
2.1	Milestones		17
2.2	Work Progress		18
2.3	Summary & Concerns		19
3	Ericsson GSM Expansion – Supplementary	128-2004	20-21
3.1	Milestones		20
3.2	Work Progress		20
3.3	Summary & Concerns		21
4	Siemens Phase 3 Expansion	241-2005	22-24
4.1	Milestones		22
4.2	Work Progress		23
4.3	Summary & Concerns		24
5	EETN/DWDM (Dense Wavelength Division Multiplexing)	05-2003	25-27
5.1	Milestones		25
5.2	Work Progress		26
5.3	Summary & Concerns		27
6	ERP Project – Oracle eBusiness Suite	026/027-2005	28-30
6.1	Milestones		28
6.2	Work Progress		29
6.3	Summary & Concerns		30
7	Design of Omantel Head Quarter Complex	173-2005 & 112-2002	31-32
7.1	Milestones		31
7.2	Work Progress		31
7.3	Summary & Concerns		32
8	Customer Contact Centre – Al-Hail	015-2005	33-34
8.1	Milestones		33
8.2	Work Progress		34
8.3	Summary & Concerns		34

1.

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Contract Number	<ol style="list-style-type: none"> 1. 082 – 2005 Motorola(Supply, installation, integration & commissioning of GSM equipments) 2. 012-2005 Siemens (installation, integration and commissioning of MW equipments) 3. 074-2005 Tawoos (Civil Work) 4. 073-2005 MDS(Supplying shelters for GSM sites) 	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	GSM Expansion
Date Signed	Motorola 27-Apr-05 Siemens 7 Feb-05 Tawoos 27- Apr-05 MDS 27- Apr-05	Contract End	31-Jan-2005
Start Date		Planned Finish	31-Jan-2006
Contractor	Motorola – Siemens – Tawoos – MDS	Contract Value	1.6Mn
Extension	31/01/2006	Var. Order	N/A
Project Manager	Yasser Bakhit Qatan	Project Status	Completed

Project Description	Supply, Installation, Integration, Testing and Commissioning of GSM Equipment for Network Development In additional 14 sites
Scope Original Contract	New Sites=14 (Batinah) + Transferring TX links From VSAT to MW in Motorola network
Variation Order	N/A

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Stage 1: Survey with all the concerned departments	▶▶▶▶▶	01-Jan-05	03-Jan-05	
DD-2	Stage 2: Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Stage 3: Receiving the technical and commercial offer from the contractor	▶▶▶▶▶	01-Feb-05	27-Feb-05	
T-2	Stage 4 : Finalize the scope of work	▶▶▶▶▶	05-Mar-05	15-Apr-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Land Acquisition	▶▶▶▶▶	15-Nov-05	10- Dec. 05	
Ex-2	Access Roads	▶▶▶▶▶	28-Sep-05	28-Sep-05	
Ex-3	Soil test s	▶▶▶▶▶	28-Sep-05	27-Nov-05	
Ex-4	Civil works	▶▶▶▶▶	28-Nov-05 15-Jan-06 28-Jan-06	28-Jan-06	
Ex-5	Sites On Air	▶▶▶▶▶	31-Dec-05	31-Dec-05	
Ex-6	VSAT Dismantling to MW	▶▶▶▶▶	18-Nov-05 31-Jan-06	31-Jan-06 Pending	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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	Milestone	Progress	Planned Date	Actual Date	Flag
C-1	IG, ATP, IAC & PAC	▶▶▶▶▶	15-Mar-06		
C-2	Lessons learned	▶▶▶▶▶	08-Mar-06		
C-3	Administration close	▶▶▶▶▶	20-Mar-06		
C-4	Release the team	▶▶▶▶▶	20-Mar-06		

1.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
Ex-1	Krookies of the remaining 4 sites	Completed	15-Nov-05	10 Dec. 05
	▶▶▶▶▶		07-Dec-05	
Ex-3	Soil test reports of the 4 sites	Completed	28-Nov-05	27-Nov-05
	▶▶▶▶▶			
Ex-4	All civil work is completed except the 4 sites	Completed	28-Nov-05 15-Jan-06 28-Jan-06	28-Jan-06
	▶▶▶▶▶			
Ex-5	Site On Air	Completed	31-Dec-05	31-Dec-05
	▶▶▶▶▶			
Ex-6	Vsat Dis mantling to MW	Pending	18-Nov-05 15-Jan-06	
	▶▶▶▶▶		After Royal camp	

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Contract #	209-2005	Owner	Oman Mobile
Title	Motorola Phase 8 expansion	Class	Expansion
Date Signed	28-September 2005	Contract End	27/9/2006
Start Date	28-September 2005	Planned Finish	31/7/2006
Contractor	2005/209	Contract Value	8,000,000
Extension	N/A	Var. Order	N/A
Project Manager	Yasser Qatan & Fida Al-Balushi	Project Status	In Progress

Project Description	Design, supply, installation, integration, testing and commissioning of equipment for GSM expansion in Batinah region, Buraimi area and Musandam Governorate.
Scope Original Contract	New Sites=61+4 (additional) = 65, Mcell 6, Replacements=134 , upgrade=29 sites
Variation Order	N/A

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Survey with all the concerned department	▶▶▶▶▶	23-Dec-04	2-Jan-05	
DD-2	Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Technical & commercial evaluation	▶▶▶▶▶	20-Apr-05	24-May-05	
T-2	Final Scope of Work	▶▶▶▶▶	31-Jul-05	31-Jul-05	
T-3	Contract Signed	▶▶▶▶▶	15-Sep-05	28-Sep-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	IOS First Run	▶▶▶▶▶	19-Oct-05	19-Oct-05	

Ex-2	Delivery (Equipments)	▶▶▶▶▶	20-Mar-06	31- Dec-05	
Ex-3	Delivery of third party (Shelters, Towers, stabilizers, MW)	▶▶▶▶▶	20-Dec-05		○
Ex-4	Upgrade to GS7	▶▶▶▶▶	30-Aug-05	30-Aug-05	
Ex-5	BSC(14) & BSC(16) - RXCDR-PCU	▶▶▶▶▶	15-Jan-06	4-Jan-06	
Ex-6	96 Mcell Replacement	▶▶▶▶▶	17-Jul-06		
Ex-7	29 Rep+Upgrade	▶▶▶▶▶	01-Mar-06	20-Oct-05	
Ex-8	5 Micro Replacements	▶▶▶▶▶	17-Jul-06		
Ex-9	4 Mcell Arena Rep	▶▶▶▶▶	17-Jul-06		
Ex-10	12 New Minis	▶▶▶▶▶	15-Feb-06		○
Ex-11	53 New Macros	▶▶▶▶▶	10-July-06		
New sites (Milestones)					
Ex-12	Stage-1 (19 new sites)	▶▶▶▶▶	1-Feb-06		○
Ex-13	Stage-2 (16 new sites)	▶▶▶▶▶	5-Apr-06		
Ex-14	Stage-3 (16 new sites)	▶▶▶▶▶	20-May-06		
Ex-15	Stage-4 (14 new sites)	▶▶▶▶▶	10-Jul-06		
Ex-16	IOS Second Run	▶▶▶▶▶	15-Sep-06		
Ex-17	Land acquisition	▶▶▶▶▶	31-Mar-06		

2.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
Ex-2	Delivery of Equipment for the stages	Delivery of equipment for stage 1 is completed	15-Nov-05	15-Nov-05
	▶▶▶▶▶			
Ex-5	BSC(14) & BSC(16)- RXCDR-PCU	Installed and successfully integrated to the network. The ATP for Sohar is being scheduled	15-Jan-06	4-Jan-06
	▶▶▶▶▶			
Ex-6	96 Mcell 6 Replacement	23 sites are replaced. The total site integration is 14%	17-Jul-06	
	▶▶▶▶▶			
EX-7	29 Rep+Upgrade	Most of the Sites are replaced and upgraded. The Power ATP and the LT power system installation is still in progress. The total site integration is 100%. The total power system integration is 90%.	1-Mar-06	20-Oct-05
	▶▶▶▶▶			
Ex-8	5 Micro Replacement	1 site is completed (Thurmad) The total progress is 20%.	17-Jul-06	
	▶▶▶▶▶			
Ex-9	4 Mcell Arena Replacement	1 site is completed (Qarah) Total progress is 25%	17-Jul-06	
	▶▶▶▶▶			

3.

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Contract #	128-2004	Owner	Oman Mobile
Title	Ericsson GSM Expansion – Supplementary	Class	GSM Expansion
Date Signed	25-Jul-2004	Contract End	25-Jan-05
Start Date	25-Jul-2004	Planned Finish	6 Months (25-Jul-05) 4 Months (25-Nov-05)
Contractor	Ericsson	Contract Value	USD 12,967,632.98
Extension	6 Months (25-07-2005) 4 Month (25-11-2005)	Var. Order	N/A
Project Manager	Faiza Al-Moosawi ☪ Osama Bakir ☪ Sabah Al-Ismaily	Project Status	Completed

Project Description	GSM Expansion for Muscat Governorate and Surroundings
Scope Original Contract	Design, order, install, test Macro BTS (18 bare land and 9 building sites)
Variation Order	N/A

3.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Building Sites Milestone	Progress	Planned Date	Actual Date	Flag
Ex1-1	Building approvals	▶▶▶▶▶	01-Apr-05	01-Jun-05	
Ex1-2	Cable connections	▶▶▶▶▶	15-Apr-05	26-May-05	
Ex1-3	Activation of power	▶▶▶▶▶	15-May-05	30-May-05	
Ex1-4	HDSL connections	▶▶▶▶▶	15-May-05	28-Jun-05	
Ex1-5	Provision of transmission	▶▶▶▶▶	01-Jun-05	01-Jun-05	

Ref.	Bare land Sites Milestone	Progress	Planned Date	Actual Date	Flag
Ex2-1	Land acquisition approvals	▶▶▶▶▶	15-Apr-05	01-Oct-05	
Ex2-2	Construction of access Road	▶▶▶▶▶	18-Apr-05	26-Jun-05	
Ex2-3	Erection of Towers	▶▶▶▶▶	01-Jun-05	01-Oct-05	
Ex2-4	Construction of boundary walls	▶▶▶▶▶	15-Jun-05	20-Nov-05	
Ex2-5	Installation of GSM sites	▶▶▶▶▶	01-Jul-05	21-Nov-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Building Sites Milestone	Progress	Planned Date	Actual Date	Flag
C-1	IAC	▶▶▶▶▶	15-Jan-06		
C-2	PAC	▶▶▶▶▶	30-Jan-06 30-Mar-06		

4.

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Contract #	241-2005	Owner	Oman Mobile
Title	Siemens PH 3 Expansion	Class	GSM Expansion
Date Signed	29-October-2005	Contract End	29-October-2006
Start Date	07-November-2005 (Eid holiday)	Planned Finish	29-October-2006
Contractor	Siemens	Contract Value	R.O 7,767,425.801
Extension	N/A	Var. Order	N/A
Project Manager	Sabah Abdullah Al Ismaily	Project Status	In progress

Project Description	GSM Expansion for Dhakhliya, Sharqiya, Dahirah Regions
Scope Original Contract	<p>1) SSS Part: 7 LTG expansions in MSC Ibra, Ibri and Nizwa.</p> <p>2) BSS Part: 69 upgrade/downgrade (8 antenna upgrade, 61 sites upgrade), 73 new sites (12 micro, 14 Rooftop, 46 green field and 1 water tank)</p> <p>3) 1 new BSC at Sur, 30 new TRAU's (5 basic, 10 Frames & 15 modules)</p> <p>4) EDGE capability for all delivered TRX units & GPRS capacity expansion for 9 BSCs</p> <p>5) License expansion for radio commander and spots & delivery of tools and test equipment</p> <p>6) Delivery of free of charge products and services (Documentation, VLR odagen 35k expansion in Salalah MSC, Display of Roaming subscribers feature in VLR, BSS training & MV training)</p> <p>7) 25 number of Microwave transmission equipment</p>
Variation Order	

4.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone (Stage-1)	Progress	Planned end Date	Actual end Date	Flag
Ex-1-1	Equipment delivery (BSS + MW)	▶▶▶▶▶	30-Nov-05 19-Apr-06	18-Feb-06	
Ex-1-2	Material delivery (tower + shelter)	▶▶▶▶▶	12-Dec-05 19-April-06		
Ex-1-3	1 new BSC	▶▶▶▶▶	04-Jan-05	04-Jan-05	
Ex-1-4	VLR Odagen 35k expansion in Salalah	▶▶▶▶▶	06-Jan-05	06-Jan-05	
Ex-1-5	Display of Roaming Subscribers feature in VLR	▶▶▶▶▶	04-Jan-05	04-Jan-05	
Ex-1-6	7 LTG expansions in MSC Ibra, Ibri, & Nizwa	▶▶▶▶▶	21-Dec-05	28-Dec-05	
Ex-1-7	30 new TRAU's	▶▶▶▶▶	31-Dec-05	25-01-2006	
Ex-1-8	GPRS capacity expansion for 9 BSCs	▶▶▶▶▶	19-Dec-05 28-Feb-06		
Ex-1-9	Land Acquisition	▶▶▶▶▶	30-Jun-05 30-Nov-05 15-Jan-06 01-Apr-06		○
Ex-1-10	Upgrade sites (29)	▶▶▶▶▶	11-Apr-06		
Ex-1-11	Upgrade antenna (4) sites	▶▶▶▶▶	17-Apr-06		
Ex-1-12	Micro sites (3)	▶▶▶▶▶	18-Jan-06 28-Feb-06		

Ex-1-13	Rooftop (9) sites	▶▶▶▶▶▶▶▶▶▶	22-Apr-06		
Ex-1-14	Green field (24) sites	▶▶▶▶▶▶▶▶▶▶	22-Apr-06		○
Ex-1-15	License expansion for Radio commander and spots	▶▶▶▶▶▶▶▶▶▶	10-Oct-06		

Ref.	Milestone (Stage-2)	Progress	Planned end Date	Actual end Date	Flag
Ex-2-1	Equipment delivery (BSS + MW)	▶▶▶▶▶▶▶▶▶▶	19-Apr-06		
Ex-2-2	Material delivery (towers + shelters)	▶▶▶▶▶▶▶▶▶▶	19-Apr-06		
Ex-2-3	Land Acquisition (Stage-2)	▶▶▶▶▶▶▶▶▶▶	15-Feb-06		○
Ex-2-4	Upgrade sites (32)	▶▶▶▶▶▶▶▶▶▶	22-Oct-06		
Ex-2-5	Upgrade antenna (4) sites	▶▶▶▶▶▶▶▶▶▶	10-Jun-06		
Ex-2-6	Micro sites (9)	▶▶▶▶▶▶▶▶▶▶	22-Oct-06		
Ex-2-7	Rooftop (5) sites	▶▶▶▶▶▶▶▶▶▶	02-Oct-06		
Ex-2-8	Green field (22) sites	▶▶▶▶▶▶▶▶▶▶	14-Oct-06		○

4.2 Work Progress (Stage-1)

Ref.	Issue	Status	Planned end Date	Actual end Date
Ex-1-9	Land Acquisition (Stage-1) 24 sites	50% of land acquisition documents were completed, the rest in progress. Most delays of getting land acquisition documents are from Sharqia region. However, the MHEW process is too long and complicated to get final approval at Sharqia region.	01-Apr-06	-
	▶▶▶▶▶▶▶▶▶▶			
Ex-1-13	Rooftops (9) sites	6 Roof top sites on air, the rest in progress.	22-Apr-06	-
	▶▶▶▶▶▶▶▶▶▶			
Ex-1-14	Green field (24) sites	1 on air, 5 in progress, 12 no krookies, and 6 pending. 2 sites are pending because of the co-location issue with NBU:- 1. Samaiel exchange:- waiting for NBU to construct 30m tower. 2. Bahla Exchange:- waiting for their approval to extend the tower by adding 6m pole. And 4 are pending because of the unavailability of HDSL equipments.	22-Apr-06	-
	▶▶▶▶▶▶▶▶▶▶			

5.

Last updated	27 Feb-06
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Contract Number	2003-052	Owner	Network & Technology
Title	EETN / DWDM	Class	Transmission backbone expansion
Date Signed	20 April 2003	Contract End	31 December 2005
Start Date	11 March 2003	Planned Finish	31 March 2006
Contractor	M/s Zawawi Trading. Co. LLC/ .Huawei	Contract Value	RO. 6,864,621.000
Extension	31 December 2005 (New extension was requested till 31 st March 2006, and waiting for the approval)	Var. Order	V1= RO. 829,381.000 V2= RO. 1,063,517.000 V3= RO. 521,922.000
Project Manager	Fida Al-Balushi	Project Status	In progress

Project Description	Design, supply, deliver, install, test and commission long distance and junction Transmission Networks. This includes Network Management, as well as deployment of other network elements.
Scope Original Contract	Building Transmission infrastructure for Metro, Northern, Southern, and Eastern Rings
Variation Orders	<p>Variation Order 1: (a) Establish Transmission Link to Masirah Island, (b) Establish TX link to Yemeni border, (c) Upgrade Network Management System, (d) Addition of 120 Ohm DDF at selected sites.</p> <p>Variation Order 2: Expansion of the EETN backbone network DWDM (Optix 6040). Variation Order 3: Expansion of EETN backbone network for accesses equipment (Optix 3100) and for ADSL network expansion.</p>

5.1 Deliverables & Milestones

	Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Completion Date	Actual Completion Date	Flag
Ex-1	Implementation of the Metro Ring (MR)	▶▶▶▶▶	17-Jan-04	31-Mar-04	
Ex-2	Implementation of the Northern Ring (NR)	▶▶▶▶▶	31-May-04	31-Jan-05	
Ex-3	Implementation of the entire Eastern Ring (ER)	▶▶▶▶▶	31-Mar-06		
Ex-4	Implementation of the entire Southern Ring (SR)	▶▶▶▶▶	31- Mar-06		
Ex-5	Implementation of the Network Management System (NMS)	▶▶▶▶▶	31- Mar-06		
Ex-6	Expansion of the Metro Ring (MR) backbone DWDM (Optix 6040) (Nawras) and 120 Ohms PQ1 cards	▶▶▶▶▶	15-Jan 05	15-Jan 05	

Ex-7	Expansion of the Northern Ring (NR) backbone DWDM (Optix 6040) (Nawras)	▶▶▶▶▶	15-Feb 05	12-Feb 05	
Ex-8	Eastern Flat ring &Expansion of the Eastern Ring (ER) backbone DWDM (Optix 6040) (Nawras) & Masirah – Sinaw link (VO)	▶▶▶▶▶	31-Dec 05	31- Mar 06	
Ex-9	Southern Flat ring &Expansion of the Southern Ring (SR) access backbone network (Nawras) & Thumrait – Maziuina link (VO)	▶▶▶▶▶	31-May 05	15-Aug 05	

5.2 Work Progress

Ref.	Issue	Status	Planned Completion Date	Actual Completion Date
Ex-3	Unavailability of building / Containers / power and fiber sections	▶▶▶▶▶	31-Mar-06	
Ex-4	Unavailability of Southern Ring buildings / Containers / power & fiber section	▶▶▶▶▶	31-Mar-06	
Ex-5	Back up NMS is not installed	▶▶▶▶▶	31-Mar-06	
Ex8	ER Acceptance Testing	▶▶▶▶▶	31-Mar-06	

6.

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Contract Number	2005-026 Consulting & 2005-027 Oracle License	Owner	Omantel
Title	ERP Project – Oracle e-Business Suite	Class	Strategic
Date Signed	23-Feb-2005	Contract End	11+2+3 Months
Start Date	05-Mar-2005	Planned Finish	04-Mar-2006
Contractor	Oracle Systems Limited	Contract Value	US \$3,204,006.44
Extension	Request for TWO Months Extension until 23-Mar-06 Another request for one month till 23-Apr-06	Var. Order	N/A
Project Manager	Osama Bakir	Project Status	In progress

Project Description	Enterprise Resource Planning System Consulting and Training 2005-027 eBusiness Suite License agreement and support 2005-027
Scope Original Contract	Plan, Design, Install, Test and Commission an Enterprise Resource Planning system (Oracle eBusiness Suite). This includes Human Resources, Financial system, Procurement System, Contracts, Purchasing and Inventory. <i>Project has been divided into Two Separate Contracts: Professional and Training, and License Agreement</i>
Variation Order	N/A

6.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
D-1	Hardware design & System configuration (Temp)	▶▶▶▶▶	10-Apr-05	15-Apr-05	
D-2	New Hardware installation	▶▶▶▶▶	10-Nov-05	31-Oct-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Sign Contract	▶▶▶▶▶	23-Feb-05	23-Feb-05	
T-2	Kick off Meeting	▶▶▶▶▶	05-Mar-05	05-Mar-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Training (Remaining Tutor Course)	▶▶▶▶▶	07-Dec-05 20-Apr-06		
Ex-2	Definition Phase	▶▶▶▶▶	27-Jun-05	11-Jul-05	
Ex-3	Elaboration Phase	▶▶▶▶▶	31-Aug-05	10-Sep-05 31-Oct-05	
Ex-4	Build Phase	▶▶▶▶▶	27-Nov-05	20-Feb-06	

			05-Dec-05 05-Jan-06 05-Feb-06		
Ex-5	Transition Phase	▶▶▶▶▶	21-Jan-06 25-Feb-06 30-Mar-06		○
Ex-6	Roll-out and Go live	▶▶▶▶▶	22-Jan-06 04-Mar-06 11-Apr-06		○

6.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
DD-1	Hardware LOA has been released with some corrections on 1-Oct-2005. Delivery planned on 10-Nov-2005	Completed	30-May-05 15-Jul-05 30-Sep-05 10-Nov-05	31-Oct-05
Ex-1	Training was postponed in order to give more time for trainees practicing as well "Alert course" was introduced. Plan to complete the overall training on 07-dec-2005. Remaining Course will be "Tutor course"	Ongoing Some courses like "iSupplier" & "iPurchasing" might be eliminated now and offered during the End Users Training program. "Tutor Course" the only left over Course to be offered	07-Dec-05 To be re-scheduled After going live TBD	
Ex-5	Business Workflows are being developed and planned to be completed by 01-Feb-06. Owners are to complete all processes, policies and procedures. Delays on updating the business flows due to other commitments and loaded resources. This has been communicated with MTM for further attention	Audit needs to review the completed business flows and advise on their findings	01-Feb-06 10-Mar-06	
EX-5	After assessing the progress of the project, it was found that many deliverables from Omantel need to be achieved and completed. On the other hand, other developments and system preparations activities are to be completed by Oracle, Therefore, an extra one month is needed (which Oracle has requested for approval) till 23-Apr-06	Both Omantel and Oracle have to monitor their Action items within the pending issues before GO-LIVE	05-Mar-06	
Ex-6	Oracle submitted a request for TWO Months Extension in order to address all pending inputs and account for all remaining tasks for completion. Omantel is to align all its resources for the coming period to concluded any pending decisions if applicable	Completed	25-Feb-2006	25-Feb-06

6.3 Summary & Concerns

Overall Project Achievement		Overall Schedule Status	Further delays are encountered have slipped project completions to 11-Apr-06
Changes	Request for First Extension for 2 Months until 23-Mar-06 Request for another one month extension until 23-Apr-06		
Concerns			
1.	Ex-4 & Ex-5	Required more thorough review of all related functional deliverables. Each Functional user is involved in the followings: Test Scenarios, UAT and System Interface, and Template Completion Data Migration. Further preparation for the End User Training is ongoing	
	Required Action	Verify each deliverables and confirm compliance. Additionally continue using the system especially the TEST CLONE and request other users to work on this Clone. Users are required to complete the Test Scenarios, and prepare for the User Acceptance Testing on the PROD instance. Readiness for the UAT will be around 01-Feb-06	
2.	EX-5	Project is reaching its final completion stage. However, several obstacles have delayed the completion on time. Two more months are required in order to secure completion of different milestones. This should not have any impacts on the Cost	
	Required Action	Letter is to be sent for steering committee to approve extension of contract from 22-Jan-2006 till 23-Mar-06 (2 months extension) in order to complete all pending works and secure readiness to GO-LIVE Oracle has initiated such request and the request is in progress for approval by Omantel MTM. No cost impact was required as well more attention is given in order to meet this new date of completion.	
3.	EXT-5	Further one month extension was needed and Oracle has submitted for approval until 23-Apr-06	
	Required Action	Management is to approve such request as well provide more support to the team in order to dedicate more time into this project. Resources and seriously very much loaded and more efforts have to be placed in order to provide inputs and deliver results.	

7.

Last updated	25-Feb-06
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Project Contract	ACG. 173-2005 - NEO 112-2002	Owner	OmanTel
Title	Design of OmanTel Head Quarter Complex	Class	Design & construction
Date Signed	ACG 21-Aug-05 - NEO 10- Aug -02	Contract End (expected)	21- Apr-06
Start Date	ACG 02-Jul- 05 - NEO N/A	Planned Finish	02-Mrarch -06
Contractor	Architectural Consultant Group (A.C.G) National Engineering Office (N.E.O)	Contract Value(RO)	190,000 147,750
Ext	N/A	Var. Order	N/A
Project Manager	Nasser Al Shibli	Project Status	Design work in progress

Project Description	Design of OmanTel & Oman Mobile Head Quarter Complex
Scope Original Contract	<ul style="list-style-type: none"> A.C.G Plan, Design, Architectural design for the construction of OmanTel & Oman Mobile Head Quarter at Muscat, the proposed building shall have required area to accommodate the entire OmanTel & Oman Mobile staff & necessary facilities. N.E.O Structural, Electrical/Mechanical design & supervision, for the construction of OmanTel & Oman Mobile Head Quarter at Muscat,
Variation Order	N/A

7.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
D-1	Kick off meeting	▶▶▶▶▶	27-Jul-2005	27-Jul-2005	
D-2	Task1: Collection of information	▶▶▶▶▶	02Jul-05	27Sept-05	
D-3	Task2: Review & analyze information	▶▶▶▶▶	01-Oct-05	05-Oct-05	
D-4	Task3: Briefing & discussion with client	▶▶▶▶▶	08-Oct-05	15-Oct-05	
D-5	Task 4: Preliminary concept & design	▶▶▶▶▶	14-Nov-05	05-Dec-05	
D-6	Task 5: Review & approvals of preliminary concept & design by OmanTel.	▶▶▶▶▶	21-Dec-05	06-Dec-05	
D-7	Approval of preliminary concept & design by BD.	▶▶▶▶▶	TBD		
D-8	Progress of work for NEO depending on item # (D-7)	▶▶▶▶▶	TBD		

8.

Last updated	28 Feb 06
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Contract Number	015-2005	Owner	Omantel
Title	Customer Contact Centre (Al-Hail)	Class	Customer Care
Date Signed	23 rd -May-2005	Contract End	27-December-2005
Start Date	25-May-2005	Planned Finish	27-December-2005
Contractor	M/S NCR Corporation	Contract Value	R.O 944,348
Extension	27-December-2005	Var. Order	V1= R.O 37,645
Project Manager	Saleem Sheikh / Fida Al-Balushi	Project Status	<ul style="list-style-type: none"> Phase I Completed Sep.26 2005. Phase II & III partially completed Dec.27.2005 In closeout stage

Project Description	Commissioning of Oman Tel Integrated Contact Center. For 196, 192 & 1313
Scope Original Contract	Design, Supply, Installation, Testing of Avaya and Citrix, networking, systems at the new call centre for Omantel Oman Mobile services 196,192 1313
Variation Order	

8.1 Deliverables & Milestones for Phase II & III

	Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
Ref.	Milestone	Progress			Planned Date	Actual Date	Flag	
Ex-1	2 nd . Leased Line between Al Hail and – TCC Building (Omantel)	▶▶▶▶▶			25 Sep-05	23 Oct-05		
Ex-2	Witness Quality Manager Implementation	▶▶▶▶▶			12 Nov-05	26 Dec-05		
Ex-3	AIC Implementation	▶▶▶▶▶			20 Aug-05	27 Dec-05		
Ex-4	IVR Implementation(196,192,1313)	▶▶▶▶▶			20 Aug-05	27 Dec-05		
Ex-5	Unified Messaging (UM) Implementation	▶▶▶▶▶			09 Sep-05	26 Nov-05		
Ex-6	Blue Pumpkin Implementation	▶▶▶▶▶			03 Oct 05	15 Dec-05		
Ex-7	PDS Out Bound calls	▶▶▶▶▶			29 Oct-05	22 Jan-06		

Section 3: Completed Projects

1.

Project ID	192-2003	Owner	Oman Mobile
Title	Siemens GSM Expansion	Class	GSM Expansion
Date Signed	06-Nov-2003	Contract End	06-Nov-2005
Contractor	Siemens	Contract Value	RO. 15,458,205.685

2.

Contract Number	111-2003	Owner	Oman Mobile
Title	Ericsson GSM Expansion Phase 6	Class	GSM Expansion
Date Signed	11-Aug-03	Contract End	11-Feb-05
Contractor	Ericsson	Contract Value	RO 22,000,397.232
Extension	3 Months	Var. Order	RO 3,724,800.000

3.

Contract Number	168-2003	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	27-Oct-03	Contract End	25-Oct-05
Contractor	Motorola	Contract Value	RO 11,068,077.000
Extension	N/A	Var. Order	N/A

4.

Contract Number	105-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (internal works)	Class	Refurbishment
Date Signed	19-Dec-04	Contract End	20-mar-05
Contractor	Al Habib & Co. LLC	Contract Value	RO 430,000/=
Extension	8-April-2005	Var. Order	N/A

5.

Contract Number	236-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (external works)	Class	Refurbishment
Date Signed	07-Nov-04	Contract End	05-Mar-05
Contractor	Almost contracting company LLC	Contract Value	RO 70,000/=
Extension	05- Mar - 05	Var. Order	N/A

6.

Contract Number	013-2005	Owner	Omantel
Title	Construction of First Floor – Exchange Building at Sur	Class	Construction
Date Signed	7-Feb-2005	Contract End	12-June-2005
Contractor	Sagh Trading & Contracting EST.	Contract Value	RO 168,750
Extension	N/A	Var. Order	N/A

APPENDIX 1

Oman Telecommunications
Company (S.A.O.C)
Corporate Development Division



الشركة العمانية
للاتصالات (ش.م.ع.م)
قطاع التطوير التجاري





Program Office Unit	
Projects Status Report	
Month(s)	December 2005
Report Ref#	2005-12-POU
Last updated	31 st December 2005

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1	Program Office Projects Financials		Appendix 1

Legend

#	Item	Description
1		1 Milestone Progress ▶ Amount of work Completed (20 %) ▶ Amount of work Remaining (20%)
2		Risk Factor: HIGH MEDIUM LOW
3		Concern: HIGH MEDIUM LOW
4	Overall Status	Overall Project Progress 1. Ahead of Schedule 2. On Schedule 3. Behind Schedule
5		Overall Milestone Achievement ▶ Amount of work completed (10 %) ▶ Amount of work Remaining (10 %)
6	Project Phases * (See Below Model)	The completed phases are marked in *BLUE* . The on going phases are marked in *RED* .

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Document Control

Change Record: Section (1)- Pre Contract Signature Projects				
#	Date:	Record Changed by:	Reference:	
1	31-Dec-05	Nasser Al-Shibli	Flood Disaster in SAL-2	
2	31-Dec-05	Yousuf Al-Mohammed	Sohar Port Community System	
3	31-Dec-05	Mohammed Al-Kindy	LRIC Consultancy for Omantel & Oman Mobile	
4	31-Dec-05	Fida Al-Balushi	Directory Enquiry Services	
Change Record: Section (2)- Post Contract Signature Projects				
#	Date	Record Changed by:	Reference:	Contract
1	30-Nov-05	Murad Al-Balushi	Motorola GSM Expansion (Motorola- Siemens- Tawoos – MDS)	2005 (082/ 012/ 073/ 074)
2	31-Dec-05	Fida Al-Balushi	Motorola GSM Expansion	209-2005
3	30-Nov-05	Sabah Al-Ismaili	Ericsson GSM Expansion – Supplementary	128-2004
4	31-Dec-05	Sabah Al-Ismaili	Siemens Phase 3 Expansion	241-2005
5	31-Dec-05	Fida Al-Balushi	EETN/DWDM (Dense Wavelength Division Multiplexing)	005-2003
6	31-Dec-05	Asmahan Al-Mazrui	ERP Project – Oracle eBusiness Suite	026/027-2005
7	31-Dec-05	Yousuf Al-Mohammed	Const. of 1 st Floor – Exchange Building at Sur	013-2005
8	31-Dec-05	Nasser Al-Shibli	Design of OmanTel Head Quarter Complex	173-2005 & 112-2002
9	31-Dec-05	Fida Al-Balushi	Customer Contact Centre – Al-Hail	015-2005

Program Office Unit: Report Reviewers		
#	Name	Position
Q	Abdullah Al-Busaidi	Director Program Office Unit
p	Yasser Bakhit Qatan	Manager Program Management Department
p	Osama Bakir	Manager Support & Processes Department
p	Asmahan Al-Mazrui	PM Processes Specialist

Distribution	
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1	Executive President
2	Vice President Networks & Technology
3	Vice President Corporate Resources & Customer Services
4	Division Head Corporate Development
5	Division Head Finance

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Pre Contract Signature Projects (Pages 2-9)		
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4	Directory Enquiry Services	9-11
4.1	Milestones	9
4.2	Work Progress	10
4.3	Summary & Concerns	11

1.

Last updated	31-Dec-05
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Project Name	Flood Remedial Measure & Maintenance Work at Premises of Telecom Building in Dhofar Governorate	Owner	Omantel
Start Date	29-Jun-05	Class	Maintenance
Planned Finish	13- Aug -05	Project Status	Delayed
Consultant	Ba'alawi Engineering Consultancy	Contract Value	4,550 R.O
Ext	N/A	Var. Order	N/A
Project Manager	Sabah Al-Ismaili & Nasser Al Shibli		

Project Description	Consultancy service for the flood remedial measure at nine telecom buildings in Dhofar Governorate
Scope of Consultant	Survey, assess, maintenance work, preparing the design details, drawing and scope of work and tender documents for the contractors for the nine Premises of Telecom Building in Dhofar Governorate

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Stage 1: Preparation of Scope of Work for the consultancy services to carry out Civil and Electro mechanical at the following premises for Salalah-2, Salalah-3, Salalah-4, Qairoon Hairiti and Thumrait.	▶▶▶▶▶	31-Jan-05	31-Jan-05	
T-2	Stage 2: Call for quotations and award consultancy contract.	▶▶▶▶▶	15-Mar-05	20-Jun-05	
T-3	Stage 3: Prepare scope of work by the consultant regarding the work to be executed.	▶▶▶▶▶	28-Aug-05	01-Aug-05	
T-4	Stage 4: Preliminary & design details of drawings with tender documents should be submitted	▶▶▶▶▶	03-Aug -05 19-Nov-05		○
T-5	Stage 5: Call for quotations and awarding the work to the contractors.	▶▶▶▶▶	30-Sep-05 31-Dec-05		○

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
Ex-1	Stage 5: Implementation of the project.	▶▶▶▶▶	31-Nov-05	-	
Ex-2	Stage 6: Termination consultant service letter issued to the legal Dept/ waiting the response.	▶▶▶▶▶	31-Dec-05	-	

1.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-4	On 15 Nov 05, meeting held in Salalah with the consultant in order to accelerate the project to submit the tender documents ▶▶▶▶▶	Should be Submitted the tender documents on 19-Nov-05	03-Aug-05 19-Nov-05	26-Nov-05
T-5	Completed Bill of Quantities for the project in-house & sent for floating tenders.	The tender should be floated to the bidders next month On 07-Jan-06	07-Jan-06	

1.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Slippage in schedule but within project end date margin if the contract work is awarded within one month from the date of readiness of the tender documents.
Changes			
Concerns			
1.	T-4	The consultant recommends a simplistic way to carry out the project, which leads to unnecessary extra cost. The consultant submitted non-completed specification of BOQ on 26-Nov-05.	
	T-5	According the approval of cancellation from legal dept, the calling of quotations and awarding the work to the contractors will be done in-house.	
	Ex-1	Carrying out the implementation of the project in-house.	
	Required Action	<ul style="list-style-type: none"> - The maintenance work would be more cost effective if we carry out the job using in-house expertise. The consultant has not fulfilled his dateline many times. Hence, we should consider terminating his contract. - We should do the project in-house & using BOQ method to carry out such a project. 	
Other Remarks			
1.		-Several reminders issued to the consultant warring him to commit the deadline.	
2.		A termination letter sent to the Legal Dept to cancel the Consultant service, & we are awaiting the response to go further in the project.	

2.

Last updated	31-Dec-05
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Project Name	Sohar Port Community System (PCS)	Owner	Omantel
Start Date	N/A	Class	Information Systems
Planned Finish	Forecasted Phase 1 on 31-Mar-2006	Project Status	Feasibility Study
Project Manager	Osama Bakir/ Yousuf Yaqoob Al Mohamed		

Project Description	To develop and provide the Sohar Industrial Port Company (SIPC) a Port Community System (PCS) to enable electronic Data Exchange and e-Commerce among port user community and the national and international enterprises.
Proposed Scope	The development of PCS is a continuous process. The architecture of the PCS will therefore be able to accommodate a growing number of applications. The first Phase is forecasted to be Ready on 31-Mar-2006. Data Exchange will be possible with the following IT systems: 1. Vessel Notifications System (SIPC Harbor Master Office) 2. Customs Clearance (ROP) 3. Shipping Agent's Systems (shipping Line Systems) 4. Terminal Operator system The other phases will follow after the completion of phase 1.

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
D-1	Signing the MOU with the Sohar Industrial Port Company	▶▶▶▶▶	15-Aug-05	15-Aug-05	
D-2	Complete the Feasibility Study, analysis and approval.	▶▶▶▶▶	20-Sep-05	20-Sep-05	
D-3	Signing the MOU with Crimson Logic	▶▶▶▶▶	01-Oct-05	01-Oct-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Float Tender and receive offers. The Go-NO-Go decision has not yet been finalized	▶▶▶▶▶	10-Oct-05 30-Dec-05 30-Jan-06		○
T-2	Evaluation and Awarding the contract.	▶▶▶▶▶	30-Oct-05 01-Jan-06 01-Mar-06		○

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
Ex-1	Requirements Analysis & System Design	▶▶▶▶▶	30-Dec-05 20-Feb-06 20-Mar-06		
Ex-2	System Development	▶▶▶▶▶	30-Dec-05 20-May-06 20-Jun-06		
Ex-3	System Delivery- SW and Hardware	▶▶▶▶▶	25-Feb-06 20-Jun-06 20-Jul-06		
Ex-4	System Testing and Production	▶▶▶▶▶	10-Mar-06 01-Aug-06 01-Sep-06		
Ex-5	Ready – Go Live	▶▶▶▶▶	30-Mar-06 30-Aug-06 30-Sep-06		

2.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
D-2	Development of the Feasibility. Review and evaluation of the feasibility study and finalizing the Scope of Works	Completed	17-Sep-05	17-Sep-05
D-2	Meeting with Sohar company in order to gain their understanding and green line on their approval on the final scope of work prior to float a tender.	Completed	02-Oct-05	02-Oct-05
D-2	Conducted TWO days requirements analysis session with Crimson, Sohar Authorities and Customs for drafting the final Scope of Work and Systems Specifications	Completed	19-Oct-05	19-Oct-05
T-1.1	Considering the urgency of this project, scope and contract document have to be prepared in a short time	Completed	17-Sep-05	17-Sep-05
1.2	Preparing an executive summary for the progress and business case for further Omantel's Management approval.	Completed	30-Nov-05	30-Nov-05
1.3	Business Case is completed and Presented to SIPC with draft agreement for feedback	Awaiting SIPC's feedback	24-Dec-05 10-Jan-06	

1.4	Planned to have a further mutual understanding and GO-AHEAD decision from Omantel Management and SIPC	Meeting between Omantel EP and SIPC CEO occurred on 19-Dec-05 GO-AHEAD Depends on their meeting with HE Minister	15-Dec-05 19-Dec-05 20-Jan-06	
T-2	Preparing the Tender Documents and floating it prior to 15-Oct-05 Final requirements was submitted as of 29-Oct-2005 Plan to arrange for completing the Contract Document and Float the tender (Single Bid is an option)	In progress but date of floating Depends on EP and CEO meeting with HE Minister	15-Oct-05 20-Nov-05 30-Jan-06	

2.3 Summary & Concerns

Overall Project Achievement		Overall Schedule Status	Schedule will be impacted by the delays of completing the contract documents and signature. Concerns that completion of Phase 1 which will not complete by End of Mar-06. Tentative schedule shows completion not earlier than 01-Sep-06.
Changes	N/A		
Concerns			
1.	T-2	Ability to float and award the contract on time. This may delay the startup of the project	
	Required Action	<ul style="list-style-type: none"> -Receiving and approving the final scope in order to float the tender in a timely manner, or otherwise agree on single bid Format. -Scope has been submitted as of 29-Oct. required to complete the Tendering documents and float Tender in order to get the contract awarded (Single Bid or multiple) - Advise EP to meet with HE the Minister ASAP 	
Other Remarks			
1.	T4	Meeting between Omantel EP and SIPC CEO has happened on 19-Dec-05 and they agreed to meet HE the Minister before taking any further action for GO/NO GO and involvement SIPC.	
2.	T4	In a meeting on 24-Dec-2005 with SIPC they suggested the involvement of Rotterdam Port in the technical part of the project do to their experience as partners of SIPC which could delay and change the tendering process. The GO Ahead with the project depends on Remark 1 and a presentation by Rotterdam Port sometime in the 2 nd half of January-06.	

3.

Last updated	31-Dec-05
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Project Name	LRIC Consultancy for Omantel LRIC Consultancy for Oman Mobile	Owner	Omantel Finance Department
Start Date	TBD – Tender 39-2005 & Tender 40-2005	Class	Consultancy- modeling
Planned Finish	Required by 31-Mar-06 & Forecasted 6 month	Project Status	Tendering
Project Manager	Mohammed Al-Kindi – Osama Bakir		

Project Description	Consultancy service for implementing a Long Run Incremental Cost (LRIC) system for Omantel and Oman Mobile
Proposed Scope	TRA requires Omantel as an incumbent operator to calculate the interconnection costs based on Long Run Incremental Cost within two years from the effective date of license (Feb-2004). Oman Mobile is also required to produce LRIC-based information. Current operational model is based on Fully Distributed Cost (FDC) using OROS accounting package. There is, therefore, the need for Omantel to develop the capability for their costing models to support the calculation of interconnection tariffs based on LRIC. Additionally, LRIC model will be used by management in relation to retail services for performance management, business support and overall business planning capabilities.

3.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
DD-1	Invited several vendors for presentations and information collection Developed, prepared and Completed LRIC scope of Work for tendering.	▶▶▶▶▶	01-Sep-05 20-Sep-05	01-Sep-05 30-Sep-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Floating a tender with limited vendors (8) Receiving Offers from vendors	▶▶▶▶▶	30-Sep-05 13-Nov-05	30-Sep-05 13-Nov-05	

T-2	Form the Team members of Steering committee, Evaluation and Project Management	▶▶▶▶▶	30-Oct-05	30-Oct-05	
T-3	The evaluations of the technical and commercial parts completed and send it to tender committee for approval.	▶▶▶▶▶	01-Dec-05	12-Dec-05	
T-4	TRA data requirement Provide the best possible update on all aspect of Omantel network and submitted to TRA. And the other remaining data it will be submitted be end of January.	▶▶▶▶▶	20-Dec-05	24-Dec-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
Ex-1	Requirements Analysis & System Design	▶▶▶▶▶	20-Jan-06		
Ex-2	Model Development	▶▶▶▶▶	1-Mar-06		
Ex-3	Data Collection and Compilation	▶▶▶▶▶	1-Apr-06		
Ex-4	Model Testing and Verifications	▶▶▶▶▶	15-Apr-06		
Ex-5	Ready – Go Live	▶▶▶▶▶	01-May-06		

3.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-2	Waiting for offers from vendors within three weeks. This has been postponed till 11-Nov	Completed	20-Oct-05 13-Nov-05	13-Nov-05
T-3	Forming the Steering committee Team Forming Implementation Team Awaiting finance for their final nominations. Khurshid is to submit latest update. Distribute a Circular of All Nominated names for steering committee, evaluation team and project implementation management team	Completed	12-Oct-05 15-Nov-05	30-Oct-05
	TRA submitted a request for data requirements for their own purpose of Cost Modeling consultancy Service. This will need more time than anticipated and the amount of details is yet to clarified and communicated.	Completed	30-Dec-05 Based on the required details	24-DEC-05

3.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Project is scheduled to be completed within 6 months from the sign off date 01-Dec-2005
Changes	N/A		
Concerns			
1.	N/A		
	Required Action	N/A	

Oman Telecommunications
Company (S.A.O.C)

Corporate Development Division



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Other Remarks		
1		Team has formed a kick off meeting on Monday 28-Nov. Completed Action: To establish a central base of communication as well assign and forward related tasks for their owners while managing all activities toward completing these tasks
2		Work on expediting the process of contracting after completing the evaluation process and complete the awarding by providing the Letter of Acceptance ASAP. The project duration will be based on the amount of deliverables both Omantel and Oman Mobile are asking for.
3		Need to work closely on identifying the needs and requirements from TRA for their own Cost Model. Data has to be organized in an appropriate format that reflects the business model of Omantel and Oman Mobile

4.

Last updated	26-Dec-05
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Project Name	Directory Enquiries Services	Owner	Omantel
Start Date	1 st March 2005	Class	Customer Care
Planned Finish	31 st December 2005	Project Status	In Progress
Project Manager	Fida Al-Balushi		

Project Description	Outsourcing of the existing Directory Services (198)
Proposed Scope	Replacing existing call centre for Omantel Directory Enquiry Services by outsourcing to INFOLINE IP Call Centre at Knowledge Oasis Muscat (KOM)
	RO 4.2 per agent per hour (planned operation of 35 agents on a 24X7 basis over 3 shifts each of 8 hours) Dir Assist H/W RO 68,203/- System Application RO 74,408/- System S/W RO,69,082/-

4.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	2 x Leased Line between KOM- TCC and KOM – The Building (by Omantel)	▶▶▶▶▶	7 Mar-05	10 Mar-05	
Ex-2	3 x E1 lines (ISDN PRI)between KOM - TCC and Qurum (Omantel)	▶▶▶▶▶	10 Mar-05	08 Mar-05	
Ex-3	IPCC installation (Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-4	DQ/Integration (Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-5	Installation of WTOP client (ITS)	▶▶▶▶▶	05 Mar 05	05 Mar-05	
Ex-6	Training of Infoline Staff (Infoline)	▶▶▶▶▶	14 Mar-05	7 Jul-05	
Ex-7	Go Live with Phase 0 system	▶▶▶▶▶	16 Mar-05	20 Jul-05	
Ex-8	Phase -1 Upgrading Tandem to S7600	▶▶▶▶▶	1 Jun-05	11 Jun-05	
Ex-9	Phase-II SMS and Web enabling	▶▶▶▶▶	31 Dec 05		○

4.2 Work Progress

Ref.	Issue	Status	Planned completion Date	Actual Completion Date
Ex-1	2 x Leased Line between KOM - TCC and KOM – Tech Building for connecting Infoline call centre (Omantel)	Completed	7 Mar-05	10 Mar-05
	▶▶▶▶▶			
Ex-2	3 x E1 lines (ISDN PRI)between KOM – TCC and Qurum (Omantel).	Completed	10 Mar-05	8 Mar-05
	▶▶▶▶▶			
Ex-3	IPCC installation (Infoline)	Completed	12 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-4	DQ/Integration	Completed	15 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-5	Installation of WTOP client (ITS)	Completed	5 Mar-05	5 Mar-05
	▶▶▶▶▶			
Ex-6	Training of Infoline Staff	Completed	14 Mar-05	7 Jul-05
	▶▶▶▶▶			
Ex-7	Go Live with Phase 0 system	Completed	16 Mar-05	24 Sep-05
	▶▶▶▶▶			
Ex-8	Phase -1 Upgrading Tandem to S7600 (ITS)	Completed	1 Jun-05	11 Jun-05
	▶▶▶▶▶			
Ex-9	Phase-II SMS and Web enabling (ITS)	In progress	27-Jan-06	
	▶▶▶▶▶			

Section (2)			
Post Contract Signature			
1	Motorola GSM Expansion	2005 (082/ 012/ 073/ 074)	13-14
1.1	Milestones		13
1.2	Work Progress		13
1.3	Summary & Concerns		14
2	Motorola GSM Expansion Phase 8	209-2005	15-17
2.1	Milestones		15
2.2	Work Progress		16
2.3	Summary & Concerns		17
3	Ericsson GSM Expansion – Supplementary	128-2004	18-19
3.1	Milestones		18
3.2	Work Progress		18
3.3	Summary & Concerns		19
4	Siemens Phase 3 Expansion	241-2005	20-22
4.1	Milestones		20
4.2	Work Progress		21
4.3	Summary & Concerns		22
5	EETN/DWDM (Dense Wavelength Division Multiplexing)	05-2003	23-25
5.1	Milestones		23
5.2	Work Progress		23
5.3	Summary & Concerns		25
6	ERP Project – Oracle eBusiness Suite	026/027-2005	26-28
6.1	Milestones		26
6.2	Work Progress		26
6.3	Summary & Concerns		28
7	Construction of First Floor – Exchange Building at Sur	013-2005	29-32
7.1	Milestones		29
7.2	Work Progress		30
7.3	Summary & Concerns		31
8	Design of Omantel Head Quarter Complex	173-2005 & 112-2002	33-34
8.1	Milestones		33
8.2	Work Progress		34
8.3	Summary & Concerns		34
9	Customer Contact Centre – Al-Hail	015-2005	35-36
9.1	Milestones		35
9.2	Work Progress		35
9.3	Summary & Concerns		36

1.

Last updated	30-Nov-05
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Contract Number	<p>1. 082 – 2005 Motorola(Supply, installation, integration & commissioning of GSM equipments)</p> <p>2. 012-2005 Siemens (installation, integration and commissioning of MW equipments)</p> <p>3. 074-2005 Tawoos (Civil Work)</p> <p>4. 073-2005 MDS(Supplying shelters for gsm sites</p>	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	Motorola 27-Apr-05 Siemens 7 Feb-05 Tawoos 27- Apr-05 MDS 27- Apr-05	Contract End	31-Dec-2005
Start Date		Planned Finish	31-Dec-2005
Contractor	Motorola – Siemens – Tawoos – MDS	Contract Value	1.6Mn
Extension	31/12/2005	Var. Order	N/A
Project Manager	Yasser Bakhit Qatan	Project Status	Behind Schedule

Project Description	Supply, Installation, Integration, Testing and Commissioning of GSM Equipment for Network Development In additional 14 sites
Scope Original Contract	New Sites=14 (Batinah) + Transferring TX link From VSAT to MW in Motorola network
Variation Order	N/A

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Stage 1: Survey with all the concerned departments	▶▶▶▶▶	01-Jan-05	03-Jan-05	
DD-2	Stage 2: Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Stage 3: Receiving the technical and commercial offer from the contractor	▶▶▶▶▶	01-Feb-05	27-Feb-05	
T-2	Stage 4 : Finalize the scope of work	▶▶▶▶▶	05-Mar-05	15-Apr-05	

2.

Last updated	27- Dec- 05
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Contract #	209-2005	Owner	Oman Mobile
Title	Motorola Phase 8 expansion	Class	Expansion
Date Signed	28-September 2005	Contract End	27/9/2006
Start Date	28-September 2005	Planned Finish	31/7/2006
Contractor	Motorola Company	Contract Value	8,000,000
Extension	N/A	Var. Order	N/A
Project Manager	Yasser Qatan & Fida Al-Balushi	Project Status	In Progress

Project Description	Design, supply, installation, integration, testing and commissioning of equipment for GSM expansion in Batinah region, Buraimi area and Musandam Governorate.
Scope Original Contract	New Sites=61+4 (additional) = 65, Mcell 6, Replacements=134 , upgrade=29 sites
Variation Order	N/A

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Survey with all the concerned department	▶▶▶▶▶	23-Dec-04	2-Jan-05	
DD-2	Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Technical & commercial evaluation	▶▶▶▶▶	20-Apr-05	24-May-05	
T-2	Final Scope of Work	▶▶▶▶▶	31-Jul-05	31-Jul-05	
T-3	Contract Signed	▶▶▶▶▶	15-Sep-05	28-Sep -05	







Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	IOS First Run	▶▶▶▶▶	19-Oct-05	19-Oct-05	
Ex-2	Delivery (Equipments)	▶▶▶▶▶	20-Mar-06		


Ex-3	Delivery of third party (Shelter, Tower, stabilizer, MW)	▶▶▶▶▶	20-Dec-05		
Ex-4	Upgrade to GS7	▶▶▶▶▶	30-Aug-05	30-Aug-05	
Ex-5	BSC(14) & BSC(16) - RXCDR-PCU	▶▶▶▶▶	15-Jan-06		
Ex-6	96 Mcell Replacement	▶▶▶▶▶	17-Jul-06		
Ex-7	29 Rep+Upgrade	▶▶▶▶▶	01-Mar-06	20-Oct-05	
Ex-8	5 Micro Rep	▶▶▶▶▶	17-Jul-06		
Ex-9	4 Mcell Arena Rep	▶▶▶▶▶	17-Jul-06		
Ex-10	12 New Minis	▶▶▶▶▶	1 st -Feb-06		
Ex-11	53 New Macros	▶▶▶▶▶	10-July-06		
New sites (Milestones)					
Ex-12	Stage-1 (19 new sites)	▶▶▶▶▶	1-Feb-06		○
Ex-13	Stage-2 (16 new sites)	▶▶▶▶▶	5-Apr-06		
Ex-14	Stage-3 (16 new sites)	▶▶▶▶▶	20-May-06		
Ex-15	Stage-4 (14 new sites)	▶▶▶▶▶	10-Jul-06		
Ex-16	IOS Second Run	▶▶▶▶▶	15-Sep-06		
Ex-17	Land acquisition	▶▶▶▶▶	31-Mar-06		

2.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
Ex-2	Delivery of Equipment for the stages	Delivery of equipment for stage 1 is completed	15-Nov-05	15-Nov-05
	▶▶▶▶▶			
Ex-5	BSC(14) & BSC(16)- RXCDR-PCU	On 19 th Dec. a site survey was conducted in Suwaiq and Sohar to finalize all the requirements. 2xRXCDRs, 1xBSC and 1 x PCU has been installed in Suwaiq Exch. 1 x PCU and Elteck power system has been installed in Sohar.	15-Jan-06	
	▶▶▶▶▶			
Ex-6	96 Mcell 6 Replacement	15 sites are replaced. The total site integration is 15.6%.	17-Jul-06	
	▶▶▶▶▶			
EX-7	29 Rep+Upgrade	Most of the Sites are replaced and upgraded. The Power ATP and the LT power system installation is still on processes. The total site integration is 100%. The total power system integration is 90%.	1-Mar-06	20-Oct-05
	▶▶▶▶▶			
EX-8	5 Micro Rep	1 site is completed (17-Jul-06	

		Thurmad) The total progress is 20%.		
Ex-9	4 Mcell Arena Rep 	1 site is completed (Qarah) Total progress is 25%	17-Jul-06	
Ex-12	Stage-1 (19 new sites) 	4 new sites are completed and commercially on air	1-Feb-06	
Ex-17	Land acquisition 	* Check work Progress details below, Section 2.3 (Other Remarks)* .	31-Mar-06	
Ex-10	12 New Minis 	7 out of 12 sites have been installed.	1 st -Feb-06	
Ex-11	53 New Macros 	Total site integration progress is 2 %.	10-July-06	

2.3 Summary & Concerns

Overall Project Achievement		Overall Schedule Status	On Schedule
Changes	N/A		
Concerns			
1.	Ex-10	Possible delay to meet the target date for the stage -1 due to Acquiring building permits by Motorola and non-availability of Towers and Shelters from Motorola subcontractor's side.	
	Required Action	Motorola has to be alerted and pushed to provide all the third party equipments on time.	
Other Remarks			
1.	N/A	The Project total progress is 16.48 %	
2.	EX-15	On 13 th and 17 th Dec. The team resurveyed the area and proposed locations for the new sites which having problems in terms of lands due to the area affected by the new costal road or lands belongs to the public, or high prices of lands in case of purchasing and renting. The following sites were resurveyed: 1. Hilat Al Kahahyl. 2. Radah-3. 3. Rwaylat Al zaab. 4. Al Huwayl-2. 5. Al Ghuwaysah. 6. Mjaz-3 (Mjaz Al Sugra). 7. Al Sarhat. 8. Khadra Al Bursaid. 9. Al Auwaidat. 10. Ghaleel Al Maseed. 11. Sawadi-2. 12. Al Ghushab. 13. Abu Maharah.	
3.	EX-15	The site AlMubrah was resurveyed On 27/11/2005 for an alternative location because the first location which was acquired by the Ministry of Housing was rejected by the public. This issue was finalized through the office of the Ex. Wali of Suwaiq. Recently the Wali has drafted a letter to the MOH stating the reason behind the changes of the land.	
4.	EX-15	Resurvey of so many sites are scheduled due to none availability of land or the high prices in case of purchasing those lands.	

3.

Last updated	30 Nov 05
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Contract #	128-2004	Owner	Oman Mobile
Title	Ericsson GSM Expansion - Supplementary	Class	GSM Expansion
Date Signed	25-Jul-2004	Contract End	25-Jan-05
Start Date	25-Jul-2004	Planned Finish	6 Months (25-Jul-05) 4 Months (25-Nov-05)
Contractor	Ericsson	Contract Value	USD 12,967,632.98
Extension	6 Months (25-07-2005) 4 Month (25-11-2005)	Var. Order	N/A
Project Manager	Faiza Al-Moosawi ⚡ Osama Bakir ⚡ Sabah Al-Ismaily	Project Status	Completed

Project Description	GSM Expansion for Muscat Governorate and Surroundings
Scope Original Contract	Design, order, install, test Macro BTS (18 bare land and 9 building sites)
Variation Order	N/A

3.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Building Sites Milestone	Progress	Planned Date	Actual Date	Flag
Ex1-1	Building approvals	▶▶▶▶▶	01-Apr-05	01-Jun-05	
Ex1-2	Cable connections	▶▶▶▶▶	15-Apr-05	26-May-05	
Ex1-3	Activation of power	▶▶▶▶▶	15-May-05	30-May-05	
Ex1-4	HDSL connections	▶▶▶▶▶	15-May-05	28-Jun-05	
Ex1-5	Provision of transmission	▶▶▶▶▶	01-Jun-05	01-Jun-05	

Ref.	Bare land Sites Milestone	Progress	Planned Date	Actual Date	Flag
Ex2-1	Land acquisition approvals	▶▶▶▶▶	15-Apr-05	01-Oct-05	
Ex2-2	Construction of access Road	▶▶▶▶▶	18-Apr-05	26-Jun-05	
Ex2-3	Erection of Towers	▶▶▶▶▶	01-Jun-05	01-Oct-05	
Ex2-4	Construction of boundary walls	▶▶▶▶▶	15-Jun-05	20-Nov-05	
Ex2-5	Installation of GSM sites	▶▶▶▶▶	01-Jul-05	21-Nov-05	

4.

Last updated	30- Dec- 05
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Contract #	241-2005	Owner	Oman Mobile
Title	Siemens PH 3 Expansion	Class	GSM Expansion
Date Signed	29-October-2005	Contract End	29-October-2006
Start Date	07-November-2005 (Eid holiday)	Planned Finish	29-October-2006
Contractor	Siemens	Contract Value	0.7,767,425.801 R.O
Extension	N/A	Var. Order	N/A
Project Manager	Sabah Abdullah Al Ismaily	Project Status	In progress

Project Description	GSM Expansion for Dhakhliya, Sharqiya, Dahirah Regions
Scope Original Contract	<p>1) SSS Part: 7 LTG expansions in MSC Ibra, Ibri and Nizwa.</p> <p>2) BSS Part: 69 upgrade/downgrade (8 antenna upgrade, 61 sites upgrade), 73 new sites (12 micro, 14 Rooftop, 46 green field and 1 water tank)</p> <p>3) 1 new BSC at Sur, 30 new TRAU (5 basic, 10 Frames & 15 modules)</p> <p>4) EDGE capability for all delivered TRX units & GPRS capacity expansion for 9 BSCs</p> <p>5) License expansion for radio commander and spots & delivery of tools and test equipment</p> <p>6) Delivery of free of charge products and services (Documentation, VLR odagen 35k expansion in Salalah MSC, Display of Roaming subscribers feature in VLR, BSS training & MV training)</p> <p>7) 25 number of Microwave transmission equipment</p>
Variation Order	

4.1 Deliverables & Milestones




Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone (Stage-1)	Progress	Planned end Date	Actual end Date	Flag
Ex-1-1	Equipment delivery (BSS + MW)	▶▶▶▶▶	30-Nov-05		○
Ex-1-2	Material delivery (tower + shelter)	▶▶▶▶▶	12-Dec-05		○
Ex-1-3	1 new BSC	▶▶▶▶▶	04-Jan-05	04-Jan-05	
Ex-1-4	VLR Odagen 35k expansion in Salalah	▶▶▶▶▶	06-Jan-05	06-Jan-05	
Ex-1-5	Display of Roaming Subscribers feature in VLR	▶▶▶▶▶	04-Jan-05	04-Jan-05	
Ex-1-6	7 LTG expansions in MSC Ibra, Ibri, & Nizwa	▶▶▶▶▶	21-Dec-05		
Ex-1-7	30 new TRAU	▶▶▶▶▶	31-Dec-05		
Ex-1-8	License expansion for Radio commander and spots	▶▶▶▶▶	21-Dec-05		
Ex-1-9	GPRS capacity expansion for 9 BSCs	▶▶▶▶▶	19-Dec-05		
Ex-1-10	EDGE capability for all delivered TRX units	▶▶▶▶▶	19-Dec-05		
Ex-1-11	Land Acquisition (Stage-1)	▶▶▶▶▶	30-Jun-05 30-Nov-05 15-Jan-06		○
Ex-1-12	Upgrade sites (29)	▶▶▶▶▶	11-Apr-06		
Ex-1-13	Upgrade antenna (4) sites	▶▶▶▶▶	17-Apr-06		
Ex-1-14	Micro site (3)	▶▶▶▶▶	18-Jan-06		
Ex-1-15	Rooftops (9) sites	▶▶▶▶▶	22-Apr-06		
Ex-1-16	Green field (24) sites	▶▶▶▶▶	22-Apr-06		


Ref.	Milestone (Stage-2)	Progress	Planned end Date	Actual end Date	Flag
Ex-2-1	Equipment delivery (BSS + MW)	▶▶▶▶▶▶▶▶	19-Apr-06		
Ex-2-2	Material delivery (tower + shelter)	▶▶▶▶▶▶▶▶	19-Apr-06		
Ex-2-3	Land Acquisition (Stage-2)	▶▶▶▶▶▶▶▶	15-Feb-06		
Ex-2-4	Upgrade sites (32)	▶▶▶▶▶▶▶▶	22-Oct-06		
Ex-2-5	Upgrade antenna (4) sites	▶▶▶▶▶▶▶▶	10-Jun-06		
Ex-2-6	Micro sites (9)	▶▶▶▶▶▶▶▶	22-Oct-06		
Ex-2-7	Rooftops (5) sites	▶▶▶▶▶▶▶▶	02-Oct-06		
Ex-2-8	Green field (22) sites	▶▶▶▶▶▶▶▶	14-Oct-06		

4.2 Work Progress (Stage-1)


Ref.	Issue	Status	Planned end Date	Actual end Date
Ex-1-1	Equipment delivery (BSS + MW)	Delayed by Siemens, letter was sent to clarify the reason behind these delays as well as warning siemens to not exceed the original PIP end date of stage-1 (22-04-2006). Three shipments arrived containing most of the equipment, only remaining 1 shipment.	30-Nov-05	-
	▶▶▶▶▶▶▶▶			
Ex-1-2	Material delivery (tower + shelter)	Delayed by Siemens, letter was sent to clarify the reasons behind these delays as well as warning siemens not exceed the original PIP end date of stage-1 (22-04-2006). Work on going.	12-Dec-05	-
	▶▶▶▶▶▶▶▶			
Ex-1-11	Land Acquisition (Stage-1) 24 sites	1- 50% of land acquisition documents were completed the rest in progress. 2- Two sites were rejected by local committee, Survey for new location completed, the team decided to change them to building sites 3- 7 sites required co-location with Omantel, meetings are on going with the concern sections and work in progress	15-Jan-06	-
	▶▶▶▶▶▶▶▶			
Ex-1-15	Rooftops (9) sites	1. All building sites had been acquired. 2. Power work for 7 sites completed two in progress. 3. Civil work completed except some miner issues.	22-Apr-06	-
	▶▶▶▶▶▶▶▶			
Ex-1-16	Green field (24) sites	1. Survey is going on between Omantel/ Oman Mobile and their sub contractor (Road, power, soil test, boundary wall/fencing subcontractors) for all the sites. 2. Siemens in the process of getting building permits as well as environmental approval for all the sites with complete land acquisition documents.	22-Apr-06	-
	▶▶▶▶▶▶▶▶			

Ex-1-6	7 LTG expansions in MSC Ibra, Ibri, & Nizwa	Two MSC completed (MSC Ibri & MSC Ibra), remaining MSC Nizwa, waiting for material delivery	21-DEC-05	-
				
Ex-1-12 & Ex-2-4	Upgrade sites (61)	22 completed, 7 on going the rest in progress	11-Apr-06	-
				
Ex-1-13 & EX-2-5	Upgrade antenna (8) sites	3 completed and 5 in progress	17-Apr-06	-
				

4.2 Work Progress (Stage-2)

Ref.	Issue	Status	Planned end Date	Actual end Date
Ex-2-3	Land Acquisition (Stage-2) 22 sites	1- 45% of land acquisition documents were completed, the rest in progress. 2- Three sites were rejected by the governorate for different reasons; new survey will be carried out with siemens on (05-11-2005) to select the new locations.	15-Feb-06	-
				

4.3 Summary & Concerns

Overall Project Achievement			Overall Schedule Status	On Schedule
Changes		Two sites were rejected by local committee, a survey had been conducted and it was agreed either to rent building site or by a land, still under discussion.		
Concerns				
1.	Ex.-1-1 & Ex-1-2	The delivery of material/ equipments of stage-1 were delayed, this may cause an impact on the PIP program.		
	Required Action	Letter was sent to Siemens requesting them to recover the delays according to the original PIP regarding the target end date of stage-1.		
2.	Ex-1-11	The land process of Al Sharqia region is very slow, the land acquisition Engineer for Al Sharqiya region are facing a lot of difficulties in acquiring these land.		
	Required Action	<ul style="list-style-type: none"> § Some sites can be changed as building due to unavailability of bare land. § Some land were bought and rented. § This issue has to be escalated to Oman Mobile MD in order to solve it with MHEW upper management. 		
Other Remarks				
1.		53 HDSL equipment are required for roof top sites as well as some of green field sites, letter already sent regarding the same science 16/11/2005 to manager installation & maintenance. The work order not yet been issued even though the matter had been clarified from POU, NBU and carrier business Oman mobile.		

5.

Last updated	31 Dec-05
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Contract Number	2003-052	Owner	Network & Technology
Title	EETN/ DWDM	Class	Transmission backbone expansion
Date Signed	20 April 2003	Contract End	31 December 2005
Start Date	11 March 2003	Planned Finish	1 March 2006
Contractor	M/s Zawawi Trading. Co. LLC/ .Huawei	Contract Value	RO. 6,864,621.000
Extension	31 December 2005	Var. Order	V1= RO. 829,381.000 V2= RO. 1,063,517.000 V3= RO. 521,922.000
Project Manager	Fida Al-Balushi	Project Status	In progress

Project Description	Design, supply, deliver, install, test and commission of long distance and junction Transmission Networks. This includes Network Management, as well as deployment of other network elements.
Scope Original Contract	Building Transmission infrastructure for Metro, Northern, Southern, and Eastern Rings
Variation Orders	<p>Variation Order 1: (a) Establish Transmission Link to Masirah Island, (b) Establish TX link to Yemeni border, (c) Upgrade Network Management System, (d) Addition of 120 Ohm DDF at selected sites.</p> <p>Variation Order 2: Expansion of the EETN backbone network DWDM (Optix 6040). Variation Order 3: Expansion of EETN backbone network for accesses equipment (Optix 3100) and for ADSL network expansion.</p>

5.1 Deliverables & Milestones

	Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Completion Date	Actual Completion Date	Flag
Ex-1	Implementation of the Metro Ring (MR)	▶▶▶▶▶	17-Jan-04	31-Mar-04	
Ex-2	Implementation of the Northern Ring (NR)	▶▶▶▶▶	31-May-04	31-Jan-05	
Ex-3	Implementation of the entire Eastern Ring (ER)	▶▶▶▶▶	31-Jan-06		
Ex-4	Implementation of the entire Southern Ring (SR)	▶▶▶▶▶	31-Jan-06		
Ex-5	Implementation of the Network Management System (NMS)	▶▶▶▶▶	31-Jan-06		
Ex-6	Expansion of the Metro Ring (MR) backbone DWDM (Optix 6040) (Nawras) and 120 Ohms PQ1 cards	▶▶▶▶▶	15-Jan 05	15-Jan 05	

Ex-7	Expansion of the Northern Ring (NR) backbone DWDM (Optix 6040) (Nawras)	▶▶▶▶▶	15-Feb 05	12-Feb 05	
Ex-8	Eastern Flat ring &Expansion of the Eastern Ring (ER) backbone DWDM (Optix 6040) (Nawras) & Masirah – Sinaw link (VO)	▶▶▶▶▶	31-Dec 05	27-Aug 05 (Masirah – Sinaw)	
Ex-9	Southern Flat ring &Expansion of the Southern Ring (SR) access backbone network (Nawras) & Thumrait – Maziuina link (VO)	▶▶▶▶▶	31-May 05	15-Aug 05	

5.2 Work Progress

Ref.	Issue	Status	Planned Completion Date	Actual Completion Date
Ex-3	Unavailability of building / Containers / power and fiber sections	▶▶▶▶▶	28-Feb-06	
Ex-4	Unavailability of Southern Ring buildings / Containers / power & fiber section	▶▶▶▶▶	20-Jan-06	
Ex-5	Back up NMS is not installed	▶▶▶▶▶	31-Jan-06	
Ex8	ER (Flat) TCC - SUR Acceptance Testing	▶▶▶▶▶	28-Feb-06	

6.

Last updated	31-Dec-05
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Contract Number	2005-026 Consulting & 2005-027 Oracle License	Owner	Omantel
Title	ERP Project – Oracle e-Business Suite	Class	Strategic
Date Signed	23-Feb-2005	Contract End	11+2+3 Months
Start Date	05-Mar-2005	Planned Finish	23-Feb-2006
Contractor	Oracle Systems Limited	Contract Value	US \$3,309,093.00
Extension	N/A	Var. Order	N/A
Project Manager	Osama Bakir	Project Status	In progress

Project Description	Enterprise Resource Planning System Consulting and Training 2005-027 eBusiness Suite License agreement and support 2005-027
Scope Original Contract	Plan, Design, Install, Test and Commission an Enterprise Resource Planning system (Oracle eBusiness Suite). This includes Human Resources, Financial system, Procurement System, Contracts, Purchasing and Inventory. <i>Project has been divided into Two Separate Contracts: Professional and Training, and License Agreement</i>
Variation Order	N/A

6.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
D-1	Hardware design & System configuration (Temp)	▶▶▶▶▶	10-Apr-05	15-Apr-05	
D-2	New Hardware installation	▶▶▶▶▶	10-Nov-05	31-Oct-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Sign Contract	▶▶▶▶▶	23-Feb-05	23-Feb-05	
T-2	Kick off Meeting	▶▶▶▶▶	05-Mar-05	05-Mar-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Training (Remaining Tutor Course)	▶▶▶▶▶	07-Dec-05 20-Jan-06		
Ex-2	Definition Phase	▶▶▶▶▶	27-Jun-05	11-Jul-05	
Ex-3	Elaboration Phase	▶▶▶▶▶	31-Aug-05	10-Sep-05 31-Oct-05	
Ex-4	Build Phase	▶▶▶▶▶	27-Nov-05 05-Dec-05 05-Jan-06		

4.	EX-5	Project is reaching its final completion stage. However, several obstacles have made it not to be completed on time. We still require at least two months in order to secure completion of different milestones. This should not have any impacts on the Cost
	Required Action	Letter is to be sent for steering committee to approve extension of contract from 22-Jan-2006 till End of Mar-2006 (2 months extension) in order to complete all pending works and secure readiness to GO-LIVE

7.

Last updated	31 Dec 05
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Contract Number	013-2005	Owner	Omantel
Title	Construction of First Floor – Exchange Building at Sur	Class	Construction
Date Signed	7-Feb-2005	Contract End	12-June-2005
Start Date	14-Feb-2005	Planned Finish	12-June-2005
Contractor	Sagh Trading & Contracting EST.	Contract Value	RO 168,750
Extension	N/A	Var. Order	N/A
Project Manager	Yousuf Yaqoob Al Mohamed	Project Status	Completed

Project Description	Design & construction of the first floor over the existing ground floor of the Telephone Exchange building at Sur
Scope Original Contract	<ul style="list-style-type: none"> - Design & construction of the first floor over the existing ground floor of the Telephone Exchange building at Sur. - Construction of shaft for the hoist - Extending the existing staircase up to the second floor to get access to the roof of the first floor. - Mechanical, Security and Safety Installations
Variation Order	N/A

7.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Civil Works	▶▶▶▶▶	12-Jun-05	26-Sep-05	
Ex-2	Electro-mechanical Works	▶▶▶▶▶	15-May-05	30-Sep-05	
Ex-3	Security and Safety Works	▶▶▶▶▶	10-May-05	30-Sep-05	
Ex-4	Electrical Works	▶▶▶▶▶	15-May-05	17-Sep-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
C-1	Closeout	▶▶▶▶▶	10-Dec-05	17-Dec-05	

7.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
Ex-1.1	SITE PREPARATIONS AND DEMOLITION OF THE CIVIL WORKS	Started and finished before commencement date	7-Feb-05	7-Dec-04
	▶▶▶▶▶			
1.2	RCC COLUMN CASTING - EXTERNAL SIDE	Started and finished before Planned date	31-Mar-05	28-Dec-05
	▶▶▶▶▶			
1.3	STAIRCASE ROOM CONSTRUCTION, AND SLAB, STEPS	Completed	7-Mar-05	26-Sep-05
	▶▶▶▶▶			
1.4	CMI BRICKS	Completed	10-Apr-05	24-Apr-05
	▶▶▶▶▶			
1.5	CASTING OF ARCHES	Completed	31-Mar-05	5-Jan-05
	▶▶▶▶▶			
1.6	COMPLETION OF CALCULATIONS AND DOCUMENTS	Completed	14-Mar-05	26-Mar-05
	▶▶▶▶▶			
1.7	STEEL FABRICATION	Completed	31-Mar-05	26-Apr-05
	▶▶▶▶▶			
1.8	STEEL ERECTION	Completed	16-Apr-05	13-May-05
	▶▶▶▶▶			
1.9	BLOCK WORK UPTO 3.00 MT. HIGH	Completed	10-Mar-05	6-Jan-05
	▶▶▶▶▶			
1.10	BLOCK WORK UPTO 4.40 MT.	Completed	15-Mar-05	6-Jan-05
	▶▶▶▶▶			
1.11	FIXING OF BRAKING SLOT	Completed	15-Mar-05	9-Aug-05
	▶▶▶▶▶			
1.12	ROOF CASTING AND PARAPET WALL	Completed	30-Apr-05	9-Sep-05
	▶▶▶▶▶			
1.13	PARTITION WALLS	Completed	27-Apr-05	1-Sep-05
	▶▶▶▶▶			

1.14	PAINING INSIDE & OUTSIDE	completed	3-May-05	Inside was completed on 13-08-05, outside on 30-09-05
	▶▶▶▶▶			
1.15	FALSE CEILING	Completed	7-May-05	1-Sep-05
	▶▶▶▶▶			
1.16	ROOF WATER PROOFING	Completed	21-Apr-05	27- Aug -05
	▶▶▶▶▶			
1.17	ROOF TILE WORKS	Completed	15-May-05	9-Sep-05
	▶▶▶▶▶			
Ex-2.1	CONTRACTOR HAS SUBMITTED MATERIALS SPECIFICATIONS FOR SOME ELECTRO-MECHANICAL WORK FOR APPROVAL	Handed over back to contractor after approval	2-Mar-05	3-Mar-05
	▶▶▶▶▶			
2.2	SHIFTING A/C UNITS TO NEW ROOF	Completed	12-May-05	15-Jul-05
	▶▶▶▶▶			
2.3	ELECTRO MECHANICAL WORKS	Completed	15-May-05	30-Sep-05
	▶▶▶▶▶			
C1.1	ATP CARRYING-OUT	Was attended and snag snags been listed	30-Sep-05	30-Sep-05
	▶▶▶▶▶			
C1.2	PAC ISSUING	Completed	10-Dec-05	17-Dec 05
	▶▶▶▶▶			

7.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Completed
Changes	N/A		
Concerns	N/A		
Other Remarks			
1.	Ex-1 & 2	Work completion date has passed and the contractor entered into the penalty stage & It's been communicated to the contractor that they entered into the penalty stage	

8.

Last updated	31-Dec-05
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Project Contract	ACG. 173-2005 - NEO 112-2002	Owner	OmanTel
Title	Design of OmanTel Head Quarter Complex	Class	Design & construction
Date Signed	ACG 21-Aug-05 - NEO 10- Aug -02	Contract End (expected)	21- Apr-06
Start Date	ACG 02-Jul- 05 - NEO N/A	Planned Finish	02-Mrarch -06
Contractor	Architectural Consultant Group (A.C.G) National Engineering Office (N.E.O)	Contract Value	190,000 147,750
Ext	N/A	Var. Order	N/A
Project Manager	Nasser Al Shibli	Project Status	Design work in progress

Project Description	Design of OmanTel & Oman Mobile Head Quarter Complex
Scope Original Contract	<ul style="list-style-type: none"> A.C.G Plan, Design, Architectural design for the construction of OmanTel & Oman Mobile Head Quarter at Muscat, the proposed building shall have required area to accommodate the entire OmanTel & Oman Mobile staff & necessary facilities. N.E.O Structural, Electrical/Mechanical design & supervision, for the construction of OmanTel & Oman Mobile Head Quarter at Muscat,
Variation Order	N/A

8.1 Deliverables & Milestones

	Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
D-1	Kick off meeting	▶▶▶▶▶	27-Jul-2005	27-Jul-2005	
D-2	Task1: Collection of information	▶▶▶▶▶	02Jul-05	27Sept-05	
D-3	Task2: Review & analyze information	▶▶▶▶▶	01-Oct-05	05-Oct-05	
D-4	Task3: Briefing & discussion with client	▶▶▶▶▶	08-Oct-05	15-Oct-05	
D-5	Task 4: Preliminary concept & design	▶▶▶▶▶	14-Nov-05	05-Dec-05	
D-6	Task 5: Review & approvals of preliminary concept & design by OmanTel.	▶▶▶▶▶	21-Dec-05	06-Dec-05	
D-7	Progress of work for NEO depending on item # (D-6)	▶▶▶▶▶	TBD		

9.

Last updated	31 Dec 05
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Contract Number	015-2005	Owner	Omantel
Title	Customer Contact Centre (Al-Hail)	Class	Customer Care
Date Signed	23 rd -May-2005	Contract End	27-December-2005
Start Date	25-May-2005	Planned Finish	27-December-2005
Contractor	M/S NCR Corporation	Contract Value	R.O 944,348
Extension	27-December-2005	Var. Order	V1= R.O 37,645
Project Manager	Saleem Sheikh / Fida Al-Balushi	Project Status	<ul style="list-style-type: none"> Phase I Completed Sep.26 2005. Phase II & III Completed Dec.27.2005

Project Description	Commissioning of Oman Tel Integrated Contact Center. For 196, 192 & 1313
Scope Original Contract	Design, Supply, Installation, Testing of Avaya and Citrix, networking, systems at the new call centre for Omantel Oman Mobile services 196,192 1313
Variation Order	

9.1 Deliverables & Milestones for Phase II & III

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	2 nd . Leased Line between Al Hail and – TCC Building (Omantel)	▶▶▶▶▶	25 Sep-05	23 Oct-05	
Ex-2	Witness Quality Manager Implementation	▶▶▶▶▶	12 Nov-05	26 Dec-05	
Ex-3	AIC/IVR Implementation	▶▶▶▶▶	20 Aug-05	27 Dec-05	
Ex-4	Unified Messaging (UM) Implementation	▶▶▶▶▶	09 Sep-05	26 Nov-05	
Ex-5	Blue Pumpkin Implementation	▶▶▶▶▶	03 Oct 05	15 Dec-05	
Ex-6	PDS Out Bound calls	▶▶▶▶▶	29 Oct-05	27 Dec-05	
Ex-7	Go Live date Phase II & III	▶▶▶▶▶	27 Dec-05	27 Dec-05	
Ex-8	Phase I	▶▶▶▶▶	26 Sep -05	26 Sep -05	

9.2 Work Progress

Ref.	Issue	Status	Planned completion Date	Actual Completion Date
Ex-1	2 nd . Leased Line Between Al Hail CCC- and TCC	Completed	25 Sep-05	23 Oct-05
	▶▶▶▶▶			
Ex-2	Witness Quality Manager Implementation	Completed	27 Nov-05	26 Dec-05
	▶▶▶▶▶			
Ex-3	AIC/IVR Implementation	Completed	27 Dec-05	27 Dec-05
	▶▶▶▶▶			
Ex-4	Unified Messaging (UM) Implementation	Completed	16 Nov-05	26 Nov-05
	▶▶▶▶▶			
Ex-5	Blue Pumpkin Implementation	Completed	30 Nov-05	15 Dec-05
	▶▶▶▶▶			
Ex-6	PDS Out Bound calls	Completed	27 Dec-05	27 Dec-05
	▶▶▶▶▶			
Ex-7	Go Live with Phase II & III system	Completed	27 Dec -05	27 Dec-05
	▶▶▶▶▶			
Ex-8	Phase -1	Completed	23 May-05	26 Sep-05
	▶▶▶▶▶			

9.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Completed
Changes	N/A		
Concerns			
1.		. ** NO IVR Messages Phases received from 192/1313 from Omantel Marketing. (Product and Services) Option 4 "Self Service" This IVR service will not be available. Follow up with Omantel Marketing	
	Required Action		
Other Remarks			
1.		PDS Outbound call to be customized, initialized data selection and training for Staff after go live date	
2.		1313 – Phase I – II & III, Currently working with 1313 team to move to Call Center At Hail. Issues with 10 application network connectivity from Omantel. Network teams are working to resolve. Target Date of move dependence on Application Connectivity to Al Hail.	
3.		All product training for 1313 staff to be done.	

Oman Telecommunications
Company (S.A.O.C)

Corporate Development Division



الشركة العمانية
للاتصالات (ش.م.ع.م)
قطاع التطوير التجاري

4		WQM. Customization for reporting and monitoring after go live date.
5		Blue pumpkin Customization of shift schedule on going training.
6		Review IVR tree flow with 196, 192 and 1313

Section (3)

Completed Projects

1	Siemens GSM Expansion	192-2003	30
2	Ericsson GSM Expansion Phase 6	111-2003	30
3	Motorola GSM Expansion	168-2003	31
4	Oman Mobile Head Quarter Building (Internal Work)	105-2004	31
5	Oman Mobile Head Quarter Building (External Work)	236-2004	32

1.

Project ID	192-2003	Owner	Oman Mobile
Title	Siemens GSM Expansion	Class	GSM Expansion
Date Signed	06-Nov-2003	Contract End	06-Nov-2005
Planned Finish	06-Jun-2005	Ext	N/A
Contractor	Siemens	Contract Value	R.O. 15,458,205.685
Project Manager	Abdullah Al-Busaidi	Project Status	Completed

Project Description	GSM Expansion project for Al-Dhahira, Al-Sharqiaya and Al-Dakhilyah Regions.
Scope Original Contract	New Sites=37, Upgrade=32, MSC = 2(Ibra, Ibri), Gateway MSC = 02, IN Pre paid = 01, STP = 02, VOM upgrade 350K to 600K, GPRS/MMS Solution, SW upgrade to SR10.
Variation Order	STP and SSS Spare Parts

2.

Contract Number	111-2003	Owner	Oman Mobile
Title	Ericsson GSM Expansion Phase 6	Class	GSM Expansion
Date Signed	11-Aug-03	Contract End	11-Feb-05
Start Date	11-Aug-03	Planned Finish After Ext.	11-May-05
Contractor	Ericsson	Contract Value	RO 22,000,397.232
Extension	3 Months	Var. Order	RO 3,724,800.000
Project Manager	Faiza Al-Moosawi □ Osama Bakir □ Sabah Al-Ismaily	Project Status	Completed

Project Description	GSM Expansion for Muscat Governorate and Surroundings
Scope Original Contract	95 New Sites, 91 Upgrade, 1 Mobile Switch (MSC8), GPRS/MMS System, SW upgrade to R9 for all MSCs, 2 BSCs, and Processor Upgrade for Existing MSCs and HLR
Variation Order	MSC9 in Sur and MSC 10 in Suwaiq

3.

Contract Number	168-2003	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	27-Oct-03	Contract End	25-Oct-05
Start Date	27-Oct-03	Planned Finish	31-July-05
Contractor	Motorola	Contract Value	RO 11,068,077.000
Extension	N/A	Var. Order	N/A
Project Manager	Abdullah Badar Al Busaidi	Project Status	Completed

Project Description	GSM Expansion for Al Batinah, Mussandam, Al Buraimi Regions and Seamless Coverage for their roads.
Scope Original Contract	New Sites=50, Strategic Road Sites= 49, Upgrade=31, upgrade to GSR5&6 for all BTSs, 1 BSC, 2 TXCDR & PCU for GPRS implementation
Variation Order	N/A

4.

Contract Number	105-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (internal works)	Class	Refurbishment
Date Signed	19-Dec-04	Contract End	20-mar-05
Start Date	05-01-05	Planned Finish	20-Mar-05
Contractor	Al Habib & Co. LLC	Contract Value	RO 430,000/=
Extension	8-April-2005	Var. Order	N/A
Project Manage	Mohammed Al-Kindy	Project Status	Completed

Project Description	Construction of Oman Mobile head quarter office building at Al-Khuwair-internal works
Scope Original Contract	The work comprises the construction, maintenance, commissioning and hand over of new facilities in accordance with the specifications, detailed drawings and approval of the Oman Mobile engineer.
Variation Order	<ol style="list-style-type: none"> 1- Closed circuit AC for IT room. 2- 2 no. of UPS 60KVA. 3- 4 no. Panel board. 4- Transformer 500 KW. 5- Raised floor. 6- 2 no. split unit AC 1.5 for IT staff room. 7- 1 no. split unit AC.2.0 for ups room. 8- Core drilling 50mm diameter holes to ground floor. 9- FM200 fire fighting system.

5.

Contract Number	236-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (external works)	Class	Refurbishment
Date Signed	07-Nov-04	Contract End	05-Mar-05
Start Date	17-Nov-04	Planned Finish	26-Jan-05
Contractor	Almest contracting company LLC	Contract Value	RO 70,000/=
Extension	05- Mar - 05	Var. Order	N/A
Project Manager	Mohammed Al-Kindy	Project Status	Completed

Project Description	Construction of Oman Mobile head quarter office building at Al-Khuwair - External works.
Scope Original Contract	Generally the description given for demolition, site work, decoration, roads, car park, paving, road marking, signs, gates, glass reinforced concrete, proposed guard room and sign board.

APPENDIX 1

Oman Telecommunications
Company (S.A.O.C)
Corporate Development Division



الشركة العمانية
للاتصالات (ش.م.ع.م)
قطاع التطوير التجاري







Program Office Unit	
Projects Status Report	
Month(s)	October 2005
Report Ref#	2005-10-POU
Last updated	31 st October 2005

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4	LRIC Consultancy for Omantel & Oman Mobile	N/A	8-9
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3	Ericsson GSM Expansion – Supplementary	128-2004	18-19
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3.2	Work Progress		18
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4	EETN/DWDM (Dense Wavelength Division Multiplexing)	05-2003	20-22
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Legend

#	Item	Description
1		1 Milestone Progress ▶ Amount of work Completed (20 %) ▶ Amount of work Remaining (20%)
2		Risk Factor: HIGH MEDIUM LOW
3		Concern: HIGH MEDIUM LOW
4	Overall Status	Overall Project Progress 1. Ahead of Schedule 2. On Schedule 3. Behind Schedule
5		Overall Milestone Achievement ▶ Amount of work completed (10 %) ▶ Amount of work Remaining (10 %)
6	Project Phases * (See Below Model)	The completed phases are marked in *BLUE* . The on going phases are marked in *RED* .

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Document Control

Change Record: Section (1)- Pre Contract Signature Projects				
#	Date:	Record Changed by:	Reference:	
1	31-Oct-05	Yasser Qatan	Siemens Phase 3 Expansion	
2	31-Oct-05	Yasser Qatan	Flood Disaster in SAL-2	
3	31-Oct-05	Osama Bakir	Sohar Port Community System	
4	31-Oct-05	Fida Al-Balushi	LRIC Consultancy for Omantel & Oman Mobile	
5	31-Oct-05	Fida Al-Balushi	Directory Enquiry Services	
Change Record: Section (2)- Post Contract Signature Projects				
#	Date	Record Changed by:	Reference:	Contract
1	31-Oct-05	Yasser Qatan	Motorola GSM Expansion (Motorola- Siemens- Tawoos - MDS)	2005-082
2	31-Oct-05	Yasser Qatan	Motorola GSM Expansion	TBD
3	31-Oct-05	Yasser Qatan	Ericsson GSM Expansion - Supplementary	128-2004
4	31-Oct-05	Fida Al-Balushi	EETN/DWDM (Dense Wavelength Division Multiplexing)	05-2003
5	31-Oct-05	Asmahan Al-Mazrui	ERP Project - Oracle eBusiness Suite	026/027-2005
6	30-Sep-05	Yousuf Al-Mohammed	Const. of 1 st Floor - Exchange Building at Sur	013-2005

Program Office Unit: Report Reviewers		
#	Name	Position
Q	Abdullah Al-Busaidi	Director Program Office Unit
p	Yasser Bakhit Qatan	Manager Program Management Department
p	Osama Bakir	Manager Support & Processes Department
p	Asmahan Al-Mazrui	PM Processes Specialist

Distribution	
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1	Executive President
2	Vice President Networks & Technology
3	Vice President Corporate Resources & Customer Services
4	Division Head Corporate Development
5	Division Head Finance

Section (1)		
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3.2	Work Progress	6
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4	LRIC Consultancy for Omantel & Oman Mobile	8-9
4.1	Milestones	8
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4.3	Summary & Concems	9
5	Directory Enquiry Services	10-12
5.1	Milestones	10
5.2	Work Progress	11
5.3	Summary & Concems	12

1.

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Project Name	Siemens PH 3 Expansion	Owner	Oman Mobile
Start Date	N/A	Class	GSM Expansion
Planned Finish	N/A	Project Status	Contract recently signed
Project Manager	Yasser Bakhit Qatan		

Project Description	GSM Expansion for Dhakhliya, Sharqiya, Dahirah Regions
Proposed Scope	New Sites: 80 sites and upgrade sites: 73

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Joint Final Survey with all the concerned departments and Siemens	▶▶▶▶▶	23-Dec-04	23-Dec-04	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Submit the Final Offer and start evaluation	▶▶▶▶▶	01- Jun-05	10-Apr-05	
T-2	Complete Evaluation	▶▶▶▶▶	19-Apr-05	15-Jun-05	
T-3	Discussion with Tender Board and Siemens	▶▶▶▶▶	28-Jun-05	28-Jun-05	
T-4	Submission of final offer after negotiation	▶▶▶▶▶	30-July-05	30-Jul-05	
T-5	Preparing Contract Document	▶▶▶▶▶	10-Oct-05	10-Oct-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Land Acquisition	▶▶▶▶▶	30- Jun-05 30-Nov-05		○

2.

Last updated	31-Oct-05
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Project Name	Flood Disaster in SAL-2	Owner	Omantel
Start Date	N/A	Class	Protection work
Planned Finish	N/A	Project Status	Design work in progress
Project Manager	Sabah Al-Ismaily		

Project Description	Flood protection works to the telecom building in Dhofar Governorate
Proposed Scope	Design services for the flood protection and maintenance work

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Stage 1: Preparation of Scope of Work for the consultancy services to carry out Civil and Electro mechanical at the following premises for Salalah-2, Salalah-3, Salalah-4, Qairoon Hairiti and Thumrait.	▶▶▶▶▶	31-Jan-05	31-Jan-05	
T-2	Stage 2: Call for quotations and award consultancy contract.	▶▶▶▶▶	15-Mar-05	20-Jun-05	
T-3	Stage 3: Prepare scope of work by the consultant regarding the work to be executed.	▶▶▶▶▶	28-Aug-05	-	○
T-4	Stage 4: Call for quotations and awarding the work to the contractors.	▶▶▶▶▶	30-Sep-05	-	

3.

Last updated	31-Oct-05
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Project Name	Sohar Community System (PCS)	Owner	Omantel
Start Date	N/A	Class	Information Systems
Planned Finish	Forecasted Phase 1 on 31-Mar-2006	Project Status	Feasibility Study
Project Manager	Osama Bakir		

Project Description	To develop and provide the Sohar Industrial Port Company (SIPC) a Port Community System (PCS) to enable electronic Data Exchange and e-Commerce among port user community and the national and international enterprises.
Proposed Scope	The development of PCS is a continuous process. The architecture of the PCS will therefore be able to accommodate a growing number of applications. The first Phase is forecasted to be Ready on 31-Mar-2006. Data Exchange will be possible with the following IT systems: 1. Vessel Notifications System (SIPC Harbor Master Office) 2. Customs Clearance (ROP) 3. Shipping Agent's Systems (shipping Line Systems) 4. Terminal Operator system The other phases will follow after the completion of phase 1.

3.2 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Signing the MOU with the Sohar Industrial Port Company	▶▶▶▶▶	15-Aug-2005	15-Aug-2005	
T-2	Complete the Feasibility Study, analysis and approval.	▶▶▶▶▶	20-Sep-05	20-Sep-2005	
T-3	Float Tender and receive offers	▶▶▶▶▶	10-Oct-05 20-Nov-05		
T-4	Award the contract	▶▶▶▶▶	30-Oct-05 01-Dec-05		
T-5	Requirements Analysis & System Design	▶▶▶▶▶	30-Dec-05		
T-6	System Development	▶▶▶▶▶	30-Dec-05 10-Feb-06		
T-7	System Delivery- SW and Hardware	▶▶▶▶▶	25-Feb-06		
T-8	System Testing and Production	▶▶▶▶▶	10-Mar-06		
T-7	Ready – Go Live	▶▶▶▶▶	30-Mar-06		

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
Ex-1	Development of the Feasibility study is in progress. Review and evaluation of the feasibility study and finalizing the Scope of Works	Completed	17-Sep-05	17-Sep-05	

Ex-2	Meeting with sohar company in order to gain there understanding and green line on their approval on the final scope of work prior to float a tender.	Completed	02-Oct-05	02-Oct-05	
Ex-3	Conducted TWO days requirements analysis session with Crimson, Sohar Authorities and Customs for drafting the final Scope of Work and Systems Specifications	Completed	19-Oct-05	19-Oct-05	

3.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-1	Considering the urgency of this project, scope and contract document have to be prepared in a short time	Completed	17-Sep-05	17-Sep-05
T-2	To prepare the Tender Documents and float it prior to 15-Oct-05 Final requirements was submitted as of 29-Oct-2005 Plan to arrange for completing the Contract Document and Float the tender (Single Bid is an option)	To Prepare the full contact Document for Floating Tender	15-Oct-05	
	▶▶▶▶▶▶▶▶▶▶		20-Nov-05	

3.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Schedule might be impacted by the delays of completing the contract documents and signature. Concerns that completion of Phase 1 might not complete by End of Mar if further time is occurred to get the agreement approved and signed
Changes	N/A		
Concerns			
1.	T-2	Ability to float and award the contract on time. This may delay the startup of the project	
	Required Action	Receiving and approving the final scope in order to float the tender in a timely manner, or otherwise agree on single bid Format. Scope has been submitted as of 29-Oct. required to complete the Tendering documents and float Tender in order to get the contact awarded (Single Bid or multiple)	
Other Remarks			
2.	N/A		

4.

Last updated	31-Oct-05
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Project Name	LRIC Consultancy for Omantel LRIC Consultancy for Oman Mobile	Owner	Finance Department
Start Date	TBD – Tender 39-2005 & Tender 40-2005	Class	Consultancy-modeling
Planned Finish	Required by 31-Mar-06 & Forecasted 6 month	Project Status	Tendering
Project Manager	Fida Al Balushi – Osama Bakir		

Project Description	Consultancy service for implementing a Long Run Incremental Cost (LRIC) system for Omantel and Oman Mobile
Proposed Scope	TRA requires Omantel as an incumbent operator to calculate the interconnection costs based on Long Run Incremental Cost within two years from the effective date if license (Feb-2004). Oman Mobile is also required to produce LRIC-based information. Current operational model is based on Fully Distributed Cost (FDC) using OROS accounting package. There is, therefore, the need for Omantel to develop the capability for their costing models to support the calculation of interconnection tariffs based on LRIC. Additionally, LRIC model will be used by management in relation to retail services for performance management, business support and overall business planning capabilities.

4.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
DD-1	Requirements Analysis & System Design	▶▶▶▶▶	20-Jan-06	Tentative date	
DD-2	Model Development	▶▶▶▶▶	1-Mar-06	Tentative date	
DD-3	Data Collection and Compilation	▶▶▶▶▶	1-Apr-06	Tentative date	
DD-4	Model Testing and Verifications	▶▶▶▶▶	15-Apr-06	Tentative date	
DD-5	Ready – Go Live	▶▶▶▶▶	01-May-06	Tentative date	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned finish Date	Actual finish Date	Flag
T-1	Invited several vendors for presentations and information collection	▶▶▶▶▶	01-Sep-05	01-Sep-05	
T-2	Prepared and developed LRIC scope of work for tendering.	▶▶▶▶▶	15-Sep-05	15-Sep-05	
T-3	Complete the scope of work in order to submit for tendering	▶▶▶▶▶	20-Sep-05	30-Sep-05	
T-4	Floating a tender with limited vendors (8) Receiving Offers from vendors	▶▶▶▶▶	30-Sep-05 13-Nov-05	30-Sep-05	
T-5	Evaluation and Awarding	▶▶▶▶▶	01-Dec-05		

4.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T-5	Awaiting offers from vendors within three weeks. This has been postponed till 11-Nov	Ongoing	20-Oct-05	
	▶▶▶▶▶		New Date 13-Nov-05	
T-5	Forming the Steering committee Team Forming Implementation Team Awaiting finance for their final nominations. Khurshid is to submit latest update	Ongoing	12-Oct-05	
	▶▶▶▶▶		15-Nov-2005	

4.3 Summary & Concerns

Overall Project Achievement	▶▶▶▶▶▶▶▶▶▶	Overall Schedule Status	Project is scheduled to be completed within 6 months from the sign off date 01-Dec-2005
Changes	N/A		
Concerns			
1.	T-5	Postponing and delays on getting offers will impact the completion of contract and sign off. Latest forecasted is around 1-Dec which will affect the completion of project within 6 months	
	Required Action	To complete the team nominations as well align team members in order to respond to the quick Evaluation request as well complete the evaluation on standard basis to award contract ASAP.	
Other Remarks			
2.	N/A		

5.

Last updated	31-Oct-05
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Project Name	Directory Enquiries Services	Owner	Omantel
Start Date	1 st March 2005	Class	Customer Care
Planned Finish	30 th June 2005	Project Status	In Progress
Project Manager	Fida Al-Balushi		

Project Description	Outsourcing of the existing Directory Services (198)
Proposed Scope	<p>Replacing existing call centre for Omantel Directory Enquiry Services by outsourcing to INFOLINE IP Call Centre at Knowledge Oasis Muscat (KOM)</p> <p>RO 4.2 per agent per hour (planned operation of 35 agents on a 24X7 basis over 3 shifts each of 8 hours)</p> <p>Dir Assist H/W RO 68,203/- System Application RO 74,408/- System S/W RO,69,082/-</p>

5.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	2 x Leased Line between KOM- TCC and KOM – The Building (by Omantel)	▶▶▶▶▶	7 Mar-05	10 Mar-05	
Ex-2	3 x E1 lines (ISDN PRI)between KOM - TCC and Qurum (Omantel)	▶▶▶▶▶	10 Mar-05	08 Mar-05	
Ex-3	IPCC installation (Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-4	DQ/Integration (Infoline)	▶▶▶▶▶	12 Mar-05	26 Apr-05	
Ex-5	Installation of WTOP client (ITS)	▶▶▶▶▶	05 Mar 05	05 Mar-05	
Ex-6	Training of Infoline Staff (Infoline)	▶▶▶▶▶	14 Mar-05	7 Jul-05	
Ex-7	Go Live with Phase 0 system	▶▶▶▶▶	16 th Mar-05	20 Jul-05	
Ex-8	Phase -1 Upgrading Tandem to S7600	▶▶▶▶▶	1 Jun-05	11 Jun-05	
Ex-9	Phase-II SMS and Web enabling	▶▶▶▶▶	30 Jul-05		

5.2 Work Progress

Ref.	Issue	Status	Planned completion Date	Actual Completion Date
Ex-1	2 x Leased Line between KOM - TCC and KOM – Tech Building for connecting Infoline call centre (Omantel)	Completed	7 Mar-05	10 Mar-05
	▶▶▶▶▶			
Ex-2	3 x E1 lines (ISDN PRI)between KOM – TCC and Qurum (Omantel).	Completed	10 Mar-05	8 Mar-05
	▶▶▶▶▶			
Ex-3	IPCC installation (Infoline)	Completed	12 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-4	DQ/Integration	Completed	15 Mar-05	26 Apr-05
	▶▶▶▶▶			
Ex-5	Installation of WTOP client (ITS)	Completed	5 Mar-05	5 Mar-05
	▶▶▶▶▶			
Ex-6	Training of Infoline Staff	Completed	14 Mar-05	7 Jul-05
	▶▶▶▶▶			
Ex-7	Go Live with Phase 0 system	Completed	16 Mar-05	24 September-05
	▶▶▶▶▶			
Ex-8	Phase -1 Upgrading Tandem to S7600 (ITS)	Completed	1 Jun-05	11 Jun-05
	▶▶▶▶▶			
Ex-8	Phase-II SMS and Web enabling (ITS)	In progress	30-Jul-05	
	▶▶▶▶▶		15-Aug-05	

Section (2)			
Post Contract Signature			
1	Motorola GSM Expansion	2005-082	14-15
1.1	Milestones		14
1.2	Work Progress		14
1.3	Summary & Concerns		15
2	Motorola GSM Expansion Phase 8		16-17
2.1	Milestones		16
2.2	Work Progress		16
2.3	Summary & Concerns		17
3	Ericsson GSM Expansion – Supplementary	128-2004	18-19
3.1	Milestones		18
3.2	Work Progress		18
3.3	Summary & Concerns		19
4	EETN/DWDM (Dense Wavelength Division Multiplexing)	05-2003	20-22
4.1	Milestones		20
4.2	Work Progress		21
4.3	Summary & Concerns		22
5	ERP Project – Oracle eBusiness Suite	026/027-2005	23-24
5.1	Milestones		23
5.2	Work Progress		23
5.3	Summary & Concerns		24
6	Construction of First Floor – Exchange Building at Sur	013-2005	28-30
6.1	Milestones		28
6.2	Work Progress		29
6.3	Summary & Concerns		30

1.

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Contract Number	Motorola(Supply, installation, integration & commissioning of GSM equipments) 2005-082– Siemens (installation, integration and commissioning of MW equipments) 2005-012 Tawoos (Civil Work) 2005 - 074– MDS(Supplying shelters for gsm sites 2005 - 073	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	Motorola 27-Apr-05 Siemens 7 Feb-05 Tawoos 27-Apr-05 MDS 27-Apr-05	Contract End	N/A
Start Date		Planned Finish	31-Dec-2005
Contractor	Motorola – Siemens – Tawoos – MDS	Contract Value	1.6Mn
Extension	N/A	Var. Order	N/A
Project Manager	Yasser Bakhit Qatan	Project Status	In Progress

Project Description	Supply, Installation, Integration, Testing and Commissioning of GSM Equipment for Network Development In additional 14 sites
Scope Original Contract	New Sites=14 (Batinah) + Transferring TX link From VSAT to MW in Motorola network
Variation Order	N/A

1.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Stage 1: Survey with all the concerned departments	▶▶▶▶▶	01-Jan-05	03-Jan-05	
DD-2	Stage 2: Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Stage 3: Receiving the technical and commercial offer from the contractor	▶▶▶▶▶	01-Feb-05	27-Feb-05	
T-2	Stage 4 : Finalize the scope of work	▶▶▶▶▶	05-Mar-05	15-Apr-05	

2.

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Contract #	TBD	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	28-September 2005	Contract End	TBD
Start Date	TBD	Planned Finish	TBD
Contractor	2005/209	Contract Value	TBD
Extension	N/A	Var. Order	N/A
Project Manager	Yasser Bakhit Qatan	Project Status	Contract Signed Recently

Project Description	GSM Expansion for Al Batinah, Mussandam, Al Buraimi Regions
Scope Original Contract	New Sites=61+4 (additional) = 65, Mcell6 rep.=134 , upgrade=29 sites
Variation Order	N/A

2.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
DD-1	Stage 1: Survey with all the concerned department	▶▶▶▶▶	23-Dec-05	2-Jan-05	
DD-2	Stage 2: Design and plan the network based on the survey report	▶▶▶▶▶	10-Jan-05	17-Jan-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Stage 3: Receive the technical & commercial offer from the Bidder and evaluate it	▶▶▶▶▶	20-Apr-05	24-May-05	
T-2	Stage 4 : Finalize the scope of work	▶▶▶▶▶	31-July-05	31-July-05	
T-3	Stage 5: sign the contract	▶▶▶▶▶	15-Sep-05	28-Sep -05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Stage 6: sites prioritized	▶▶▶▶▶	30-Jul-05	30-Jul-05	
Ex-2	Stage 7: Upgrade to GSR7	▶▶▶▶▶	30-Aug-05	30-Aug-05	

3.

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Contract Number	128-2004	Owner	Oman Mobile
Title	Ericsson GSM Expansion - Supplementary	Class	GSM Expansion
Date Signed	25-Jul-2004	Contract End	25-Jan-05
Start Date	25-Jul-2004	Planned Finish	6 Months (25-Jul-05) 4 Months (25-Nov-05)
Contractor	Ericsson	Contract Value	USD 12,967,632.98
Extension	6 Months (25-07-2005) 4 Month (25-11-2005)	Var. Order	N/A
Project Manager	Faiza Al-Moosawi □ Osama Bakir □ Sabah Al-Ismaily	Project Status	Extended

Project Description	GSM Expansion for Muscat Governorate and Surroundings
Scope Original Contract	Design, order, install, test Macro BTS (18 bare land and 9 building sites)
Variation Order	N/A


3.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Building Sites Milestone	Progress	Planned Date	Actual Date	Flag
T1-1	Stage 1: Building approvals	▶▶▶▶▶	01-Apr-05	01-Jun-05	
Ex1-1	Stage 2: Cable connections	▶▶▶▶▶	15-Apr-05	26-May-05	
Ex1-2	Stage 2: Activation of power	▶▶▶▶▶	15-May-05	30-May-05	
Ex1-3	Stage 4: HDSL connections	▶▶▶▶▶	15-May-05	28-Jun-05	
Ex1-3	Stage 5: Provision of transmission	▶▶▶▶▶	01-Jun-05	01-Jun-05	

Ref.	Bare land Sites Milestone	Progress	Planned Date	Actual Date	Flag
T2-1	Stage 1: Land acquisition approvals	▶▶▶▶▶	15-Apr-05	-	○
Ex2-1	Stage 2: Construction of access Road	▶▶▶▶▶	18-Apr-05	26-Jun-05	
Ex2-2	Stage 2: Erection of Towers	▶▶▶▶▶	01-Jun-05	-	
Ex2-3	Stage 4: Construction of boundary walls	▶▶▶▶▶	15-Jun-05	-	
Ex2-4	Stage 5: Installation of GSM sites	▶▶▶▶▶	01-Jul05	-	

3.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
T2-1	<u>Land Acquisition sites (17 Sites)</u>	In Progress	15-Oct-05	-
	1- All Krookies and land acquisition documents have been submitted to Ericsson except 1 site. 2- The work in Bowsheer village is still in progress. 3- Al Jefnien:- POU is awaiting approval from MD, Oman Mobile to co-locate with Nawras site. 			

3.3 Summary & Concerns

Overall Project Achievement		Overall Schedule Status	Delayed
Changes	N/A		
Concerns			
1.	T2-1 ●	- Al Jefnien site spot at Al Nawras tower is the ideal location if want to have best signal all over the area. There is no enough time to have other alternative, therefore the decision of collocating Al Jefnien site with Al Nawras must be made fast by mid of September. - Bowsheer village site was delayed from the planned program due to some obstruction from Muscat municipality to get PB.	
	Required Action	- MD wrote a letter to the President of Muscat Municipality in order to get the BP. - A letter has been sent to MD for approval of co-locate with Nawras. Still awaiting for reply.	
Other Remarks			
1.	N/A		

Last updated	31 Oct-05
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Contract Number	2003-052	Owner Class	Network & Technology
Title	EETN / DWDM		Transmission backbone expansion
Date Signed	20 April 2003	Contract End	19 October 2004
Start Date	11 March 2003	Planned Finish	31 December 2005
Contractor	M/s Zawawi Trading. Co. LLC/ .Huawei	Contract Value	RO. 6,864,621.000
Extension	(6 Month) 19 April 2005	Var. Order	V1= RO. 829,381.000 V2= RO. 1,063,517.000 V3= RO. 521,922.000
Project Manager	Fida Al-Balushi	Project Status	In progress

Project Description	Design, supply, deliver, install, test and commission of long distance and junction Transmission Networks. This includes Network Management, as well as deployment of other network elements.
Scope Original Contract	Building Transmission infrastructure for Metro, Northern, Southern, and Eastern Rings
Variation Orders	Variation Order 1: (a) Establish Transmission Link to Masirah Island, (b) Establish TX link to Yemeni border, (c) Upgrade Network Management System, (d) Addition of 120 Ohm DDF at selected sites. Variation Order 2: Expansion of the EETN backbone network DWDM (Optix 6040). Variation Order 3: Expansion of EETN backbone network for accesses equipment (Optix 3100) and for ADSL network expansion.

4.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Completion Date	Actual Completion Date	Flag
Ex-1	Implementation of the Metro Ring (MR)	▶▶▶▶▶	17-Jan-04	31-Mar-04	
Ex-2	Implementation of the Northern Ring (NR)	▶▶▶▶▶	31-May-04	31-Jan-05	
Ex-3	Implementation of the entire Eastern Ring (ER)	▶▶▶▶▶	31-Dec-05		
Ex-4	Implementation of the entire Southern Ring (SR)	▶▶▶▶▶	31- Dec-05		
Ex-5	Implementation of the Network Management System (NMS)	▶▶▶▶▶	31-Oct-05		
Ex-6	Expansion of the Metro Ring (MR) backbone DWDM (Optix 6040) (Nawras) and 120 Ohms PQ1 cards	▶▶▶▶▶	15-Jan 05	15-Jan 05	

Ex-7	Expansion of the Northern Ring (NR) backbone DWDM (Optix 6040) (Nawras)	▶▶▶▶▶	15-Feb 05	12-Feb 05	
Ex-8	Eastern Flat ring & Expansion of the Eastern Ring (ER) backbone DWDM (Optix 6040) (Nawras) & Masirah – Sinaw link (VO)	▶▶▶▶▶	30-May 05	27-Aug 05 (Masirah – Sinaw)	
Ex-9	Southern Flat ring & Expansion of the Southern Ring (SR) access backbone network (Nawras) & Thumrait – Maziuina link (VO)	▶▶▶▶▶	31- May 05	15-Aug 05	

4.2 Work Progress

Ref.	Issue	Status	Planned Completion Date	Actual Completion Date
Ex-3	Unavailability of building / Containers and fiber sections	▶▶▶▶▶	Sep-05	
Ex-4	Unavailability of Southern Ring buildings / Containers & fiber section	▶▶▶▶▶	Sep-05	
Ex-5	Back up NMS is not installed	▶▶▶▶▶	Oct-05	
Ex8	ER (Flat) TCC - SUR Acceptance Testing	Pre-Testing	20-Oct-05	

5.

Last updated	30 Oct 05
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Contract Number	2005-026 Consulting & 2005-027 Oracle License	Owner	Omantel
Title	ERP Project – Oracle e-Business Suite	Class	Strategic
Date Signed	23-Feb-2005	Contract End	11+2+3 Months
Start Date	05-Mar-2005	Planned Finish	23-Feb-2006
Contractor	Oracle Systems Limited	Contract Value	US \$3,309,093.00
Extension	N/A	Var. Order	N/A
Project Manager	Osama Bakir	Project Status	In progress

Project Description	Enterprise Resource Planning System Consulting and Training 2005-027 eBusiness Suite License agreement and support 2005-027
Scope Original Contract	Plan, Design, Install, Test and Commission an Enterprise Resource Planning system (Oracle eBusiness Suite). This includes Human Resources, Financial system, Procurement System, Contracts, Purchasing and Inventory. <i>Project has been divided into Two Separate Contracts: Professional and Training, and License Agreement</i>
Variation Order	N/A

5.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
D-1	Hardware design & System configuration (Temp)	▶▶▶▶▶	10-Apr-05	15-Apr-05	
D-2	New Hardware installation	▶▶▶▶▶	10-Nov-05	31-Oct-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
T-1	Sign Contract	▶▶▶▶▶	23-Feb-05	23-Feb-05	
T-2	Kick off Meeting	▶▶▶▶▶	05-Mar-05	05-Mar-05	

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Training	▶▶▶▶▶	07-Dec-05		
Ex-2	Definition Phase	▶▶▶▶▶	27-Jun-05	11-Jul-05	
Ex-3	Elaboration Phase	▶▶▶▶▶	31-Aug-05	10-Sep-05 Complete Documents 31-Oct-05	
Ex-4	Build Phase	▶▶▶▶▶	27-Nov-05		
Ex-5	Transition Phase	▶▶▶▶▶	21-Jan-06		

	Required Action	Plan to establish a central information webpage in order to get info passed to every staff.
4.	Ex-4 ●	Required more thorough review of all related functional deliverables. Each Functional user is involved in the followings: Test Scenarios UAT System Interface Template Completion Data Migration
	Required Action	Verify each deliverables and confirm compliance. Additionally continue using the system especially the CLONE and request other users to work on this Clone.
5.	Ex-4 .	IT Functional are required to work harder in order to pick up all the methodologies and techniques so that they can take over especially doing the followings: Reports Forms Alerts Work Flows System Support
	Required Action	IT to continue work with close attention of consultants in order to acquire the knowledge and expertise. They can get the hand-on experiences during practicing the real work of Business processes.

6.

Last updated	30 Sep 05
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Contract Number	013-2005	Owner	Omantel
Title	Construction of First Floor – Exchange Building at Sur	Class	Construction
Date Signed	7-Feb-2005	Contract End	12-June-2005
Start Date	14-Feb-2005	Planned Finish	12-June-2005
Contractor	Sagh Trading & Contracting EST.	Contract Value	RO 168,750
Extension	N/A	Var. Order	N/A
Project Manager	Yousuf Yaqoob Al Mohamed	Project Status	Running late

Project Description	Design & construction of the first floor over the existing ground floor of the Telephone Exchange building at Sur
Scope Original Contract	<ul style="list-style-type: none"> - Design & construction of the first floor over the existing ground floor of the Telephone Exchange building at Nizwa. - Construction of shaft for the hoist - Extending the existing staircase up to the second floor to get access to the roof of the first floor. - Mechanical, Security and Safety Installations
Variation Order	N/A

6.1 Deliverables & Milestones

Strategic Alignment	Project Initiation	Design Development	Tendering	Execution	Closeout	Internal Review	Defect & Liability
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Ref.	Milestone	Progress	Planned Date	Actual Date	Flag
Ex-1	Civil Works	▶▶▶▶▶	12-Jun-05	26-Sep-05	○
Ex-2	Electro-mechanical Works	▶▶▶▶▶	15-May-05	30-Sep-05	○
Ex-3	Security and Safety Works	▶▶▶▶▶	10-May-05	30-Sep-05	○
Ex-4	Electrical Works	▶▶▶▶▶	15-May-05	17-Sep-05	○

6.2 Work Progress

Ref.	Issue	Status	Planned Date	Actual Date
Ex-1.1	SITE PREPARATIONS AND DEMOLITION OF THE CIVIL WORKS	Started and finished before commencement date	7-Feb-05	7-Dec-04
1.2	RCC COLUMN CASTING - EXTERNAL SIDE	Started and finished before Planed date	31-Mar-05	28-Dec-05

1.3	STAIRCASE ROOM CONSTRUCTION, AND SLAB, STEPS	Restarted on 13-4-05	7-Mar-05	26-Sep-05
	▶▶▶▶▶			
1.4	CMI BRICKS	Completed	10-Apr-05	24-Apr-05
	▶▶▶▶▶			
1.5	CASTING OF ARCHES	Completed	31-Mar-05	5-Jan-05
	▶▶▶▶▶			
1.6	COMPLETION OF CALCULATIONS AND DOCUMENTS	Completed	14-Mar-05	26-Mar-05
	▶▶▶▶▶			
1.7	STEEL FABRICATION	Completed	31-Mar-05	26-Apr-05
	▶▶▶▶▶			
1.8	STEEL ERECTION	Completed	16-Apr-05	13-5-05
	▶▶▶▶▶			
1.9	BLOCK WORK UPTO 3.00 MT. HIGH	Completed	10-Mar-05	6-Jan-05
	▶▶▶▶▶			
1.10	BLOCK WORK UPTO 4.40 MT.	Completed	15-Mar-05	6-Jan-05
	▶▶▶▶▶			
1.11	FIXING OF BRAKING SLOT	Completed	15-Mar-05	9-08-05
	▶▶▶▶▶			
1.12	ROOF CASTING AND PARAPET WALL	Completed	30-Apr-05	9-Sep-05
	▶▶▶▶▶			
1.13	PARTITION WALLS	Started on 30-8-05	27-Apr-05	1-Sep-05
	▶▶▶▶▶			
1.14	PAINING INSIDE & OUTSIDE	Inside is complete	3-May-05	Inside was completed on 13-08- 05, outside on 30-09- 05
	▶▶▶▶▶			
1.15	FALSE CEILING	Started on 21-8-05	7-May-05	1-Sep-05
	▶▶▶▶▶			
1.16	ROOF WATER PROOFING	Started on 21-8-05	21-Apr-05	27-8-05

Section (3)			
Completed Projects			
1	Siemens GSM Expansion	192-2003	31
2	Ericsson GSM Expansion Phase 6	111-2003	31
3	Motorola GSM Expansion	168-2003	31
4	Oman Mobile Head Quarter Building (Internal Work)	105-2004	32
5	Oman Mobile Head Quarter Building (External Work)	236-2004	32

1.

Project ID	192-2003	Owner	Oman Mobile
Title	Siemens GSM Expansion	Class	GSM Expansion
Date Signed	06-Nov-2003	Contract End	06-Nov-2005
Planned Finish	06-Jun-2005	Ext	N/A
Contractor	Siemens	Contract Value	R.O. 15,458,205.685
Project Manager	Abdullah Al-Busaidi	Project Status	Completed

Project Description	GSM Expansion project for Al-Dhahira, Al-Sharqiaya and Al-Dakhilyah Regions.
Scope Original Contract	New Sites=37, Upgrade=32, MSC = 2(Ibra, Ibr), Gateway MSC = 02, IN Pre paid = 01, STP = 02, VOM upgrade 350K to 600K, GPRS/MMS Solution, SW upgrade to SR10.
Variation Order	STP and SSS Spare Parts

2.

Contract Number	111-2003	Owner	Oman Mobile
Title	Ericsson GSM Expansion Phase 6	Class	GSM Expansion
Date Signed	11-Aug-03	Contract End	11-Feb-05
Start Date	11-Aug-03	Planned Finish After Ext.	11-May-05
Contractor	Ericsson	Contract Value	RO 22,000,397.232
Extension	3 Months	Var. Order	RO 3,724,800.000
Project Manager	Faiza Al-Moosawi □ Osama Bakir □ Sabah Al-Ismaily	Project Status	Completed

Project Description	GSM Expansion for Muscat Governorate and Surroundings
Scope Original Contract	95 New Sites, 91 Upgrade, 1 Mobile Switch (MSC8), GPRS/MMS System, SW upgrade to R9 for all MSCs, 2 BSCs, and Processor Upgrade for Existing MSCs and HLR
Variation Order	MSC9 in Sur and MSC 10 in Suwaiq

3.

Contract Number	168-2003	Owner	Oman Mobile
Title	Motorola GSM Expansion	Class	Expansion
Date Signed	27-Oct-03	Contract End	25-Oct-05
Start Date	27-Oct-03	Planned Finish	31-July-05
Contractor	Motorola	Contract Value	RO 11,068,077.000
Extension	N/A	Var. Order	N/A
Project Manager	Abdullah Badar Al Busaidi	Project Status	Completed

Project Description	GSM Expansion for Al Batinah, Mussandam, Al Buraimi Regions and Seamless Coverage for their roads.
Scope Original Contract	New Sites=50, Strategic Road Sites= 49, Upgrade=31, upgrade to GSR5&6 for all BTSs, 1 BSC, 2 TXCDR & PCU for GPRS implementation
Variation Order	N/A

4.

Contract Number	105-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (internal works)	Class	Refurbishment
Date Signed	19-Dec-04	Contract End	20-mar-05
Start Date	05-01-05	Planned Finish	20-Mar-05
Contractor	Al Habib & Co. LLC	Contract Value	RO 430,000/=
Extension	8-April-2005	Var. Order	N/A
Project Manage	Mohammed Al-Kindy	Project Status	Completed

Project Description	Construction of Oman Mobile head quarter office building at Al-Khuwair-internal works
Scope Original Contract	The work comprises the construction, maintenance, commissioning and hand over of new facilities in accordance with the specifications, detailed drawings and approval of the Oman Mobile engineer.
Variation Order	<ol style="list-style-type: none"> 1- Closed circuit AC for IT room. 2- 2 no. of UPS 60KVA. 3- 4 no. Panel board. 4- Transformer 500 KW. 5- Raised floor. 6- 2 no. split unit AC 1.5 for IT staff room. 7- 1 no. split unit AC.2.0 for ups room. 8- Core drilling 50mm diameter holes to ground floor. 9- FM200 fire fighting system.

5.

Contract Number	236-2004	Owner	Oman Mobile
Title	Oman Mobile Head Quarter Building (external works)	Class	Refurbishment
Date Signed	07-Nov-04	Contract End	05-Mar-05
Start Date	17-Nov-04	Planned Finish	26-Jan-05
Contractor	Almost contracting company LLC	Contract Value	RO 70,000/=
Extension	05- Mar - 05	Var. Order	N/A
Project Manager	Mohammed Al-Kindy	Project Status	Completed

Project Description	Construction of Oman Mobile head quarter office building at Al-Khuwair - External works.
Scope Original Contract	Generally the description given for demolition, site work, decoration, roads, car park, paving, road marking, signs, gates, glass reinforced concrete, proposed guard room and sign board.

APPENDIX 1

Oman Telecommunications
Company (S.A.O.C)
Corporate Development Division



الشركة العمانية
للاتصالات (ش.م.ع.م)
قطاع التطوير التجاري

Appendix-8

Post-implementation
interviews, workshops,
career path, training
certificates, provisional and
final acceptance certificates
of projects

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Jadawy Al Riyamy	Interview No.	1
Position	Country Manager	Date: 1 st October 2005	
Organization	XXXXXXXXXX		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives in Omantel. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies, in your organization, are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

At ~~Victoria~~, we use the Business Scorecard approach, that breaks-down corporate level strategies into initiatives, projects and goals for the individual business units that are broken down further into scorecards for regional teams and product teams, that are then broken down further and translated into scorecard-aligned, individual, Performance Management Goals for each employee.

That way you get complete organizational alignment around the corporation mission, vision, values, key strategies and break-away projects from top to bottom in our organization.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

All projects carried out in Motorola are based and planned using the PMBOK. At this point in time, we are unable to provide an exact measure of maturity.

Question 3:

In Omantel, explain how projects are executed before the introduction of project management processes in terms of challenges based on your experience?

OmanTel's project management was based on a functional structure. There was no clear project management practice and internal coordination was sometimes left to the vendor.

The structure changed dramatically with the establishment of PMO. Running projects via a strong matrix organization. A single point of contact and empowered PMO enabled smooth communication, better co-ordination and faster and timely execution.

A more structured approach is now observed and has resulted in faster and successful project implementations.

Before:

	Before PMO inception	After PMO Inception
Integration Management	Virtually Non existent	Good
Scope Management	Good	Good
Cost Management	Good	Good
Time management	Weak	Good
HR management		
Communication management	Weak	Good
Quality management	Weak	Good
Procurement Management	Good	Good
Risk Management	Weak	Good

Question 4:

In Omantel, how effective do you think is project management processes in implementing strategies?

~~Vendor's~~^{Vendors} interaction with PMO (Omantel) has been mostly confined to the levels of project implementation.

Based on these interactions, it is clear that Omantel PMO has added value in implementing projects ahead of time, under budget and with good quality.

We also note that lack of resources may affect PMO. With an ever expanding role and involvement in the whole cycle, more attention should be given in resourcing and resource and leadership development.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to both Omantel and the vendors?

PMO in Omantel was set up in 2003. In last two years it has come a long way. Undoubtedly it has emerged a one of the most effective department in Omantel.

In order to improve further PM competence level of the staff needs to be enhanced. PMP Certifications should be encouraged.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Abdullah Darwish	Interview No.	2
Position	Account Manager	Date: 28 th September 2005	
Organization	██████████		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives in Omantel. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies, in your organization, are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

- Siemens' aim is to be a global leader in electrical engineering and electronics with high profitability. All Company measures and programs are focused on this ultimate goal. The Supervisory Board of Siemens AG focuses intensively on the Company's situation and prospects. The Managing Board provides the Supervisory Board with timely and comprehensive information on a regular basis. The Supervisory Board is involved in major Company decisions, advises the Managing Board and monitors Company management.
- The Company's business portfolio is being continuously optimized within the specified framework. For this reason, targeted acquisitions are made to strengthen individual segments, particularly in growth markets.
- In the Siemens Management System – which includes the *top+* programs Innovation, Customer Focus and Global Competitiveness as well as a number of related initiatives –the key action areas for driving Company growth in the next few years are defined.
- Personnel management is brought into line with the Company's business strategy and business policies. In the last few years, the Managing Board has revamped the systems and processes for personnel development to take into account the increasing internationalization of the activities. Siemens has developed a clearly focused, comprehensive and consistent management system to tackle the challenges of ongoing globalization.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100% ✓

The "Project Management at ~~Siemens~~" (PM@~~Siemens~~) Initiative was introduced as a significant means of improving profitability, with the aim of giving Siemens a clear edge over the competition through a standardized scale of qualifications for its Project Managers.

- 53 recommendations have meanwhile been drawn up. Group-specific implementation thereof is now complete, including Scorecard Controlling.
- A career model applicable throughout ~~Siemens~~ has been devised. This model comprises uniformly organized qualification stages: Team Member, Project Manager, Senior Project Manager, Project Director.
- The PM@~~Siemens~~ Academy is firmly established.
- All Groups apply standard assessment procedures to measure the level of maturity in processes and projects.
- A standard auditing module for project management is being applied.
- Rollout has taken place in many Regional Companies and in the US.

Question 3:

In Omantel, explain how projects are executed before the introduction of project management processes in terms of challenges based on your experience?

Basically there was no specific department looking after the projects of Omantel. Therefore the projects were handled by the individual department which faced some challenges like delay in implementation, wasted efforts and time, blaming sessions internally and externally.

Question 4:

In Omantel, how effective do you think is project management processes in implementing strategies and projects?

With introduction of the new process of proper project management handling, the projected executed efficiently resulting in saving time and efforts. Therefore Omantel could define and implement clear strategies within good process.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to both Omantel and the vendors?

I suggest adopting the same process as implemented by Siemens. We at Siemens base our strategic planning and our day-to-day business practices on high ethical and legal standards. Our Business Conduct Guidelines – globally binding rules that apply to every Siemens employee and require us to abide by laws, to show mutual respect, and to act honestly and with integrity – set the basis for our conduct. Every two years, our managerial employees sign a pledge renewing their commitment to uphold these rules. We have officers at company headquarters and in our Regional Companies and Groups to whom employees can turn for advice when confronted with an ethical conflict situation.

We conduct audits to ensure that our regulations on work safety and healthcare provisions and on protection of the environment are being implemented properly worldwide, and we offer our Regional Companies any advice and support they may need. We have also introduced strategic and organizational guidelines on corporate citizenship to establish a global framework to channel the wide range of initiatives undertaken by our operating units and regional units within their local communities.

Our Principles and our Business Conduct Guidelines form part of the curricula in our training programs for junior employees. Our management training programs address corporate responsibility in its various facets and provide practical examples from within our Regional Companies and Groups.

In addition, there are a number of conventions and recommendations from international organizations. They are primarily addressed to Member States and not directly to companies. Nonetheless, they are important guidelines for the conduct of multinational companies and their employees. ~~Siemens~~ therefore emphasizes the importance of being globally in accordance with these guidelines. For Transparency International, a respected global non-governmental organization, we have signed a pledge to actively combat corruption.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Ralf Fueller	Interview No.	3
Position	General Manager	Date:	01.10.2005
Organization	████████ AG Muscat Branch		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives in Omantel. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies, in your organization, are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

- ^{Vendor's} ~~Siemens~~ aim is to be a global leader in electrical engineering and electronics with high profitability. All Company measures and programs are focused on this ultimate goal. The Supervisory Board of ~~Siemens~~ AG focuses intensively on the Company's situation and prospects. The Managing Board provides the Supervisory Board with timely and comprehensive information on a regular basis. The Supervisory Board is involved in major Company decisions, advises the Managing Board and monitors Company management.
- The Company's business portfolio is being continuously optimized within the specified framework. For this reason, targeted acquisitions are made to strengthen individual segments, particularly in growth markets.
- In the Siemens Management System – which includes the *top+* programs Innovation, Customer Focus and Global Competitiveness as well as a number of related initiatives –the key action areas for driving Company growth in the next few years are defined.
- Personnel management is brought into line with the Company's business strategy and business policies. In the last few years, the Managing Board has revamped the systems and processes for personnel development to take into account the increasing internationalization of the activities. Siemens has developed a clearly focused, comprehensive and consistent management system to tackle the challenges of ongoing globalization.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

The "Project Management at Siemens" (PM@~~Siemens~~) Initiative was introduced as a significant means of improving profitability, with the aim of giving ~~Siemens~~ a clear edge over the competition through a standardized scale of qualifications for its Project Managers.

- 53 recommendations have meanwhile been drawn up. Group-specific implementation thereof is now complete, including Scorecard Controlling.
- A career model applicable throughout Siemens has been devised. This model comprises uniformly organized qualification stages: Team Member, Project Manager, Senior Project Manager, Project Director.
- The PM@Siemens Academy is firmly established.
- All Groups apply standard assessment procedures to measure the level of maturity in processes and projects.
- A standard auditing module for project management is being applied.
- Rollout has taken place in many Regional Companies and in the US.

Question 3:

In Omantel, explain how projects are executed before the introduction of project management processes in terms of challenges based on your experience?

Before PM there were no clear responsibilities for projects. Especially projects in the GSM technology are complex infrastructure projects run usually as Turn-Key. Several parties, external as well as internal in Omantel are involved.

There were cases where the cross-section/ -department inter-working did not work efficiently, as there was no leader of the project. This led e.g. to misunderstandings, lengthy processes and resulted in delays during the execution.

Question 4:

In Omantel, how effective do you think is project management processes in implementing strategies and projects?

My experience is that projects handled through PM were highly efficient: rating like 60%-80%.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to both Omantel and the vendors?

- Apply PM for all infrastructure projects
- Ensure communication of project strategies and goals throughout the whole organization; through all levels.
- Agree with vendors/ partners on similar if possible even same tools.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Mohammed Ali Al Wohaibi	Interview No.	4
Position	Executive President	Date:13-10-2005	
Organization	Oman Telecommunications Company SAOG (OMANTEL)		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

Answer:

In Omantel, Corporate strategies are formulated by the Management team and discussed, scrutinized by top management via. Workshops that are usually conducted outside the Omantel environment. These strategies then are broken down into initiatives, programs and projects. For each, an owner is assigned, team is assembled from the stakeholders and for large initiatives project a Project Manager is assigned. The Project team, led by the Project Manager elicit stakeholders input via. interaction with the Project Team and visits to concerned units/departments. Throughout the project lifecycle, updates are given to project owner and management via written reports and presentations.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

Answer: 60-100%

Question 3:

Explain how projects are executed before the introduction of project management processes in terms of challenges?

Answer:

Before the introduction of project management processes, Omantel project execution could be described as ad-hoc. Projects were handled in co-ordination with the vendor as the vendor takes a leading role. The Omantel assigned person overseeing the project lacks basic project management skills and projects were not monitored. In effect, no proper control, documentation, reporting and management of projects. Often projects run into delays, cost over-run and design changes due to the lack of project risk management at an early stage. As not all the concerned stakeholders are involved in an initial project formulation, the risk of deployment of resources surfaces at project implementation phase. Some Departments/units were reluctant to deploy the appropriate resources which jeopardizes project schedule.

Question 4:

How effective is project management processes in implementing strategies?

Answer:

It is widely understood that projects are building blocks in the execution of Corporate Strategies. Project Management creates an environment in which the ownership of strategies is clear, the schedule is clear, the deliverables are clear and resources required are identified. It further assembles the required team and communicates with various stakeholders; using project management processes to implement strategies, creates a sense of buy-in within the organization and mobilizes resources from various units to the successful implementation of the strategy.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to the organization?

Answer:

Currently Project Management is applied throughout the Life cycle of the project from inception to delivery. However, this process could be further improved by conducting project postmortem. While it is customary to conduct such review to failed, I believe that the same should be done for successful projects as well. Lessons learnt from such reviews should be documented and communicated to the various project stakeholders including the vendors.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Hassan Al Zadjali	Interview No.	5
Position	Technical Adviser	Date:	3-10-2005
Organization	Omantel		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

Presently my organization is going through a transformation phase, where there is a lack of an effective and integrated corporate strategy as such initiative are initiated as follows:

-Bottom-up from the functional unit or departments, usually technology driven where they are collected together in a yearly basis as part of the budgeting process which then become the strategy.

-From external/ third parties having knowledge and insider information about the company expansion plans, such initiative are usually pushed through an individual department or unit head so called project or initiative champion.

-By existing VENDORS as a natural expansion growth in the numbers of subscribers.

The initiatives are the implemented by running either project or programs using the standard project management process either by the project management office in the function units or the program unit in the corporate unit of the company.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

Answer 2) 30-60% ✓

Question 3:

Explain how projects are executed before the introduction of project management processes in terms of challenges?

Before the introduction of the project management process, project implantations had the following challenges:

- Most projects did not complete in time or not all, unless pushed by executive management or customers.
- Most projects overrun the allocated budget. ✓
- All projects did not have plans or consideration of the dependencies as part of the project execution process.
- No planning for the allocation of the staffs for the projects.
- No proper monitoring and reporting of progress of the projects.

Question 4:

How effective is project management processes in implementing strategies?

If the strategies are clearly defined project management can be very effective process for the implementing of the strategies especially if there in integration between the project management process and the other function areas such as strategic planning and product development.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to the organization?

-Integrating the project management process with other function and planning process.

-Improving the managerial skills of the project managers.

-Involving of the project managers during the definition of the requirement of a project.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Faiza Ahmed Al-Moosawi	Interview No.	6
Position	Senior Expert Planning	Date: 28/10/2005	
Organization	Omantel		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

In the recent past, plans were made by individual directorates that cater for growth in traffic. These plans were based mainly on traffic statistics from the various systems in the Omantel network.

As these plans were done independently, gaps in requirements were commonly found while in the execution phase of projects. The results of these gaps were delays in project completion and dissatisfaction of customers, not to forget the negative economic effects on the company as a whole where there were many lost opportunities.

Recently, strong efforts were made to transform the way the company plans its projects. Firstly, the culture of PM was introduced where new methodologies were implemented to manage projects and successfully complete them. The second step was the introduction of the ideas of transforming the company from being a technology driven company to a customer driven company. Although the progress is slow, in my opinion, the change is sure.

With this new approach the customers' input / requests for telecom services where no services exist and for new value added services will now be considered in the networks expansion plans and other projects. The Customer services, Marketing and Network development departments will work together in preparing these plans.

Importantly, projects planned in the company will now be derived from the company's strategies. The company's strategic destination is now expressed in Mission and Vision statements, taking the company capabilities, environment and competition into account.

The Balanced Scorecard approach is used to translate the mission and vision into linked strategic objectives in the financial, customer, internal processes as well as learning and growth perspectives, forming the strategy map. This communicates how the company plans to achieve its strategy. The strategic objectives are translated into programs and projects with defined timelines linked to the strategic objectives of the company.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

1). 0-30%

2). 30-60% ✓ - just above 30% ✓

3). 60-100%

Question 3:

Explain how projects are executed before the introduction of project management processes in terms of challenges?

The main challenges that faced project management before the introduction of the project management processes in Omantel were:

- Projects are not the result of the company's strategic objectives which and hence these are planned in isolation of the rest of the departments in the company.
- Lack of ownership of the projects. ✓
- Insufficient communication between the concerned departments. ✓
- Economic results of delays in executing projects are not considered. ✓
- Lessons learned from older projects are not considered. ✓

Question 4:

How effective is project management processes in implementing strategies?

Project management processes have well defined and clear phases that cover the projects' complete life cycle from initiation to completion and close out. In addition to the PMI project phases, Omantel introduced a new phase at the top of the process called "Strategic Alignment Phase". This first phase ensures that any project the company undertakes is directly linked to the company's strategy and strategic objectives.

Because in PM every project has a baseline schedule from the time of initiation and up to completion, with well defined planned dates for start and finish, the company, from management to team members have a definite understanding of these planned dates, how communication is planned between the project team and rest of the company, etc, and for the management how this can affect the company's objectives whether positively or negatively.

x As a first step, a PMO was established which made a noticeable difference in the way project are managed and executed. An interest in project management, as a career and / or as a field of study, arose in the company, in particular in staffs who previously were directly dealing with projects. The results of implementing new PM processes in Omantel rapidly showed a positive impact.

The PM processes involve not only the project management office but also a big number of functions in the company from Strategic Planning, Finance, Tenders, Contracts, Legal, various technical functions, etc. The degree of effectiveness of the PM processes in implementing strategies depends on how well the PM processes are understood, used and implemented by the various staff in the company in addition to the project management office staff.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to the organization?

The PM knowledge and culture is still very new in Omantel. By spreading this culture to as big number of people as possible of different disciplines and raising the level of maturity of PM in company, the benefits of PM processes will also rise.

Adding KPI's to various necessary steps of every phase will allow the monitoring of performance and progress and will provide a valuable means for reporting.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Fida Abdul RAsheed	Interview No.	7
Position	Project Manager	Date: 29 Sept. 2005	
Organization	Program Office		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

Any strategic requirement or need in an organization is considered an immediate demand, which eventually affect the productivity and the road map of the Company, if not fulfilled on time. Thus, all the needs and requirements ought to be translated into initiatives, projects and programs.

Project Management is the right tools to formulate and translate all needs into project programs. Project Management will clearly define the objectives of a project and by using special techniques , mechanisms and steps to achieve the objective on time within the budget and focus on customer satisfaction.

In a project, stakeholder will play a significant role such as providing resources and supports to the team because the project success and future has direct impact on the stakeholder.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

Yes, the maturity level is 30-60%. ✓

Question 3:

Explain how projects are executed before the introduction of project management processes in terms of challenges?

Projects were executed on "ad-hoc" basis and common senses. There was no single point of contact. Projects were divided into different tasks and assigned to different functional Managers.

Question 4:

How effective is project management processes in implementing strategies?

Strategies in an organization are represented as the road map, the needs and requirements which in turn translated into projects and Programs. By using Project Management processes, the strategies have a clear vision of taking a particular product on time by analyzing all the possible risks which could emerge.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to the organization?

Project Management processes should be very simple to use. Project Management must be the approach of managing projects with the proper use of principles and techniques.

The practice is often perceived as excessively bureaucratic and cumbersome when Project Managers focus too much on complicated charts and graphs and not having enough time to concentrate on the overall business value.

The value of Project Management demonstrates how efficiently and effectively it transforms strategic objectives into business results.

Interview Questions for the Assessment of Project Management Processes in Achieving Strategies

Name	Osama Bakir	Interview No.	8
Position	Support and Processes Department Manager	Date: 27-Sep-2005	
Organization	Program Office Unit, Oman Telecom Company, Sultanate of Oman		

Introduction

I would like to take this opportunity to thank you in advance for taking the time and efforts for attending this interview. My name is Rashid Ali Al-Balushi. I work in Oman Telecommunication Company as, Division Head Corporate Development. I am assessing project management processes in executing projects and achieving strategic objectives. Therefore, I would appreciate your attention in answering the following five questions. And, I assure you that all the data will be strictly used for research purposes only.

Question 1:

Explain, in detail, how corporate strategies are formulated and translated into initiatives, programs and projects, highlighting the roles and responsibilities of each stakeholder?

When Omantel has been transformed to a private government owned company, it started to think business rather than public service entity. Accordingly, the need to coordinate efforts and work on a basis of business orientation while offering the latest service was put together under the overall company vision and mission statement, which states "To Connect and inspire, to lead achieve and lead". While the mission is:

"We will lead the present and future by achieving superior results, offering innovative communication services to our customers, nurturing our people, and inspiring our society.

In doing so, we will be the flagship of corporate, social, and personal advancement in Oman"

Corporate strategies are formulated through the understanding of the above vision, mission statement and translating all other units' needs and requirements into initiatives, programs and projects as follows:

- (1) Functional departments submit their needs and requirements for study and assessment.
- (2) Corporate office will explore market opportunities and review potential business expansion and profit making services
- (3) Corporate is also forming strategic alliances with other related core business companies

Through all the above, strategic office will review, assess, evaluate, prioritize and eventually present a set of Programs that are significantly feasible than other based on several business needs and factors.

These programs are then further divided into more independent tasks that can be captured into smaller projects which in turn can be communicated back to the overall organizations prior to final approval and implementation.

The stakeholders on the overall above corporate strategies are as follows:

- (1) Corporate division head: to liaise and ensure the strategic process implementation as well provide the direction for all types of strategic projects while securing the alignment with the mission-vision statements
- (2) Functional Managers to overview opportunities and requirements as well needed current and future services
- (3) Strategic manager: for strategic analysis and business feasibility study and developing successful business cases
- (4) Program Office: to manage the implementation of strategic projects.

Question 2:

Is Project Management used in your organization? If so, what is the maturity level?

- 1). 0-30%
- 2). 30-60%
- 3). 60-100%

Project Management has been at work starting year 2003. The strong boost for the project management started when a complete independent Project Management Office established late 2002.

Yes. Project management is used in our organization but not all over the board. Strategic projects and some other vital and mega projects are being executed with the proper project management and other projects are being managed by newly established and designed units under different departments.

An overall maturity level of the Project Management is between 30 -60. Having said that, there is a sincere efforts to elevate such level through the standardization of the project management process, as well the centralization of the overall PMIS system all around the organization, and equality as well certify the Project managers while empower them with all knowledge, skills and competencies required in the project management field.

Question 3:

Explain how projects are executed before the introduction of project management processes in terms of challenges?

Projects were handled by their own functional owners, they used to be assigned to one of the Senior Engineers or even mid level engineer to look after all project activities and worry about making this right. The functional owner was not empowered as well authorized to look after anything outside his/her own department or unit. However, projects were large in scope, that includes several involvements from different departments as well other outside vendors, suppliers and authorities.

This was one of the main challenges on not having proper project management process on how to start a project and how to empower the project manager and even how to communicate in the proper procedure.

Project suffered even further during execution since no proper monitoring and follow-up were in place. Projects were implemented without having fully understood plan as well, no clear implemental approved schedule as in place. Accordingly, accountabilities and responsibilities were lost, which in turn have created major delays in delivery, cost over, and even delivering lower quality products due to the missing of proper quality management processes.

Project management processes were in fact, if exist, not understood properly and ultimately not implemented in the right way. While controlling a project, there were no measure points, no baseline, no proper checklist and no proper milestones. This created even worse communications to the upper management who left blind to know that the strategic projects are in risk and therefore ended up with an undelivered, not completed and missed the real business opportunities behind these projects as well phased away large scale of customer satisfactions and eventually incur major losses.

Finally, project close-out was one of the main major that has created chaos in the organization finance system. These project while not closed were not properly capitalized as well were not functional as required and reported as if they are still in progress, due to the fact of missing the proper Close-out processes including technical and administrative close-out procedures.

Question 4:

How effective is project management processes in implementing strategies?

Project management is about delivery within time, cost and as per the required quality.

Strategy is about making right decisions on performing right programs and projects that are aligned with the overall company vision-mission statement.

Therefore, both project management processes and implementation strategies are closely related and interconnected.

In order to effectively setting on the strategies, there has to be reliable and acceptable level of project management processes in place to achieve results and deliver products and services.

Question 5:

Any suggestion to improve the current project management processes for optimizing its benefits to the organization?

Many steps can be taken in order to enhance and improve the current project management processes for optimizing its benefits to the organization:

- (1) Clearly developed the project management processes and have it handy for everyone
- (2) Communicate and distribute such manuals for all related parties
- (3) Continuously maintain adherence to utilizing these processes while managing projects
- (4) Obtain upper management support and encouragement on practicing project management processes
- (5) Review and monitor all processes to adapt them for the proper execution and revise any required once
- (6) Establish standard implementation procedures to complete project management processes efficiently
- (7) Develop and promote project management information system which will be the central focal system for all project management activities and tasks
- (8) Contribute and join all other project management seminars, meetings, conferences as well publications in order to stay up-to-date

Project Management: A Professional Overview

By:

Rashid Ali Al-Balushi

12th May 2004, Muscat, Oman

Project Management: A Professional Overview

I Outline:

- What is a Project?
- Project Phases
- What Is Project Management?
- History of project management
- Why Use Project Management
- Project Control (Time, Cost, Quality, Teambuilding, & Leadership)
- Common Techniques used in PM
- Conclusions

What is A Project?

“Temporary organized work that is undertaken to create a unique product or service” *PMBOK, 1996*

- | Temporary team, temporary market opportunity
- | Unique means different owner, different site, different design.

Project Phases:

1. Conceptual Design
2. Plan Development
3. Detailed Design
4. Execution
5. Termination

1. Conceptual Design

Client initiates the need for the project and defines:

goals, baselines, standards,
statement of work (SOW) etc.

2. Plan Development

- | Identify organization structure for the project like: functional, project type or matrix
- | Generate Work Breakdown Structure (WBS) from SOW (WBS represents large tasks divided into smaller subtasks, like BOQ)
- | Construct Project Logic Network PLN (PLN represents the sequence of the tasks)

Project
Coordination

CEO

Functional
Manager

Functional
Manager

Functional
Manager

Staff

Staff

Staff

Staff

Staff

Staff

Staff

Staff

Staff

**Project
Coordination**

CEO

**Project
Manager**

**Project
Manager**

**Project
Manager**

Staff

Staff

Staff

Staff

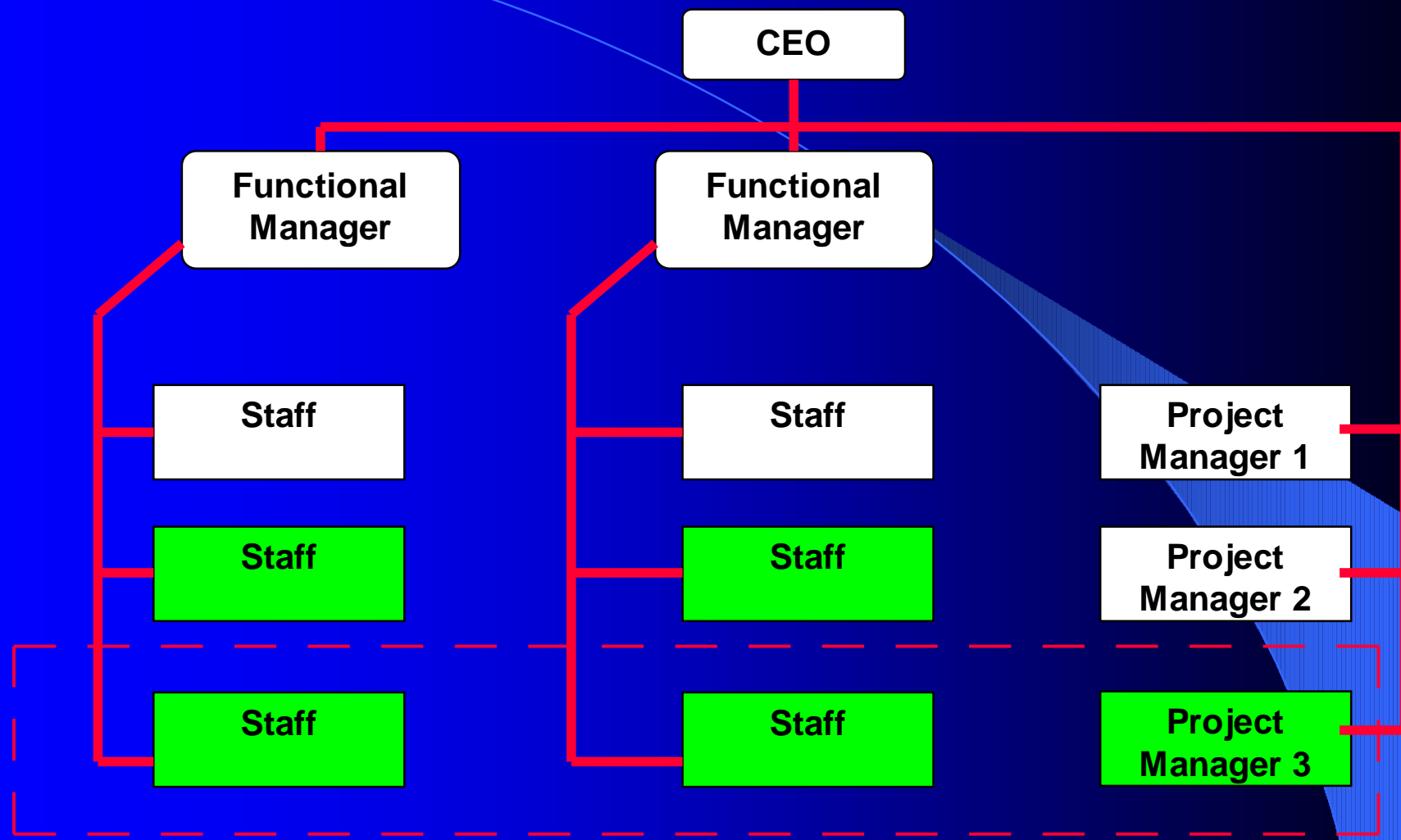
Staff

Staff

Staff

Staff

Staff



**Project
Coordination**

Development of an Engineering curriculum

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graph TD; A[Development of an Engineering curriculum] --> B[1.1 Introduction to materials' science]; A --> C[1.2 Introduction to thermodynamics]; A --> D[1.3 Engineering mechanics];
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1.1 Introduction to materials' science

1.2 Introduction to thermodynamics

1.3 Engineering mechanics

Development of an Engineering curriculum

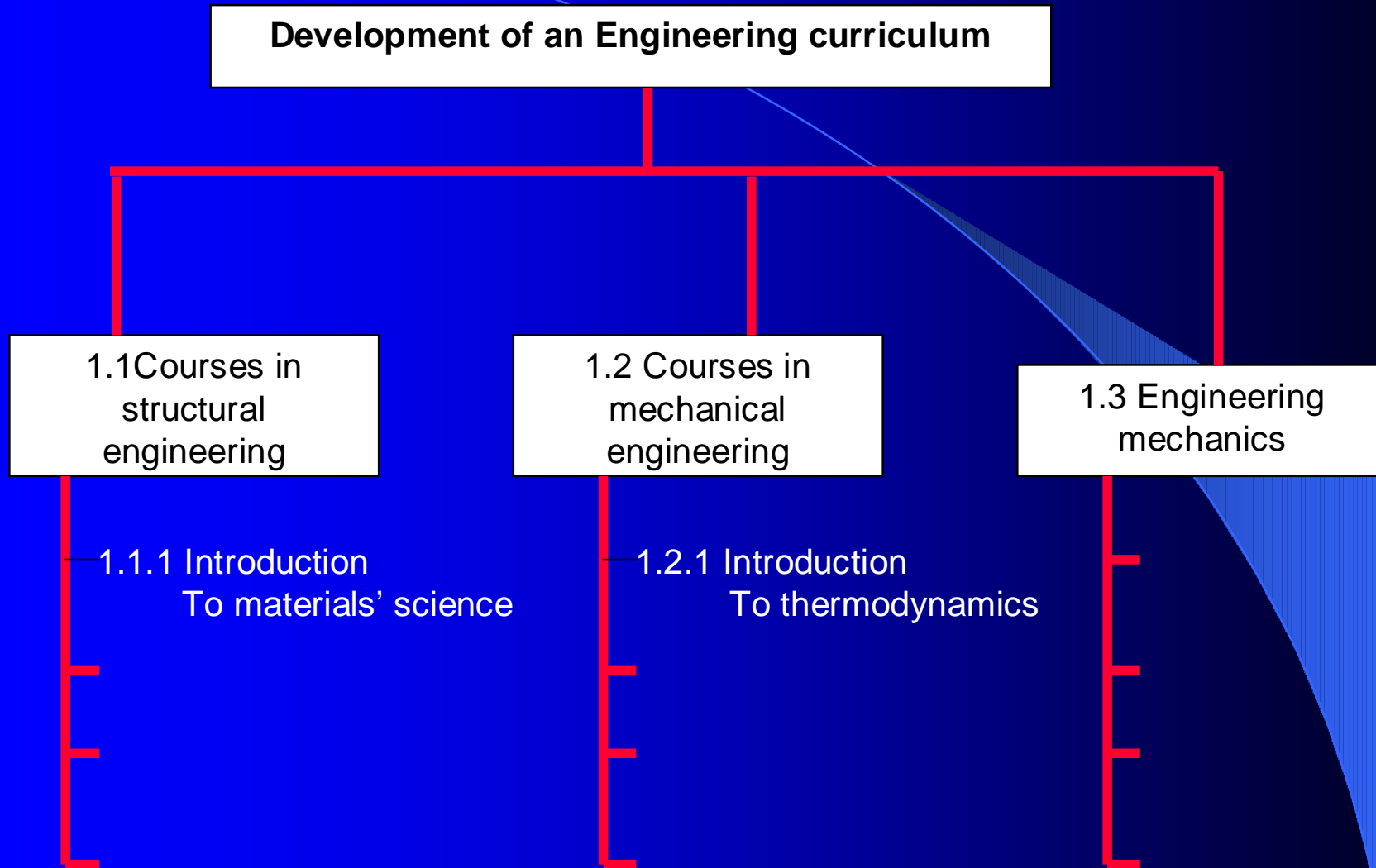
1.1 Courses in structural engineering

1.1.1 Introduction
To materials' science

1.2 Courses in mechanical engineering

1.2.1 Introduction
To thermodynamics

1.3 Engineering mechanics



3. Detailed Design

- | Detailed Drawings
- | Detailed WBS
- | Organization Structure
- | Schedule
- | Budget
- | Specifications

4. Execution

In this phase, control process applies (i.e. control time, cost and quality)

5. Termination

- Handing over the project to clients,
- Lessons learned from project's execution are consolidated into improvement plans for future use,

What is Project Management?

PM is "Planning, organizing, directing and controlling company's resources for a relatively short period of time in order to meet or exceed stake holder's expectations from the project" *Kerzner, 1998*

What is Project Management?

Stake-holder's needs and expectations include:

- | Shorter possible time
- | Cost effective
- | Acceptable level of quality

Identify a need for a product or service

Define the objectives

Select performance measures

Develop a schedule

Develop a budget

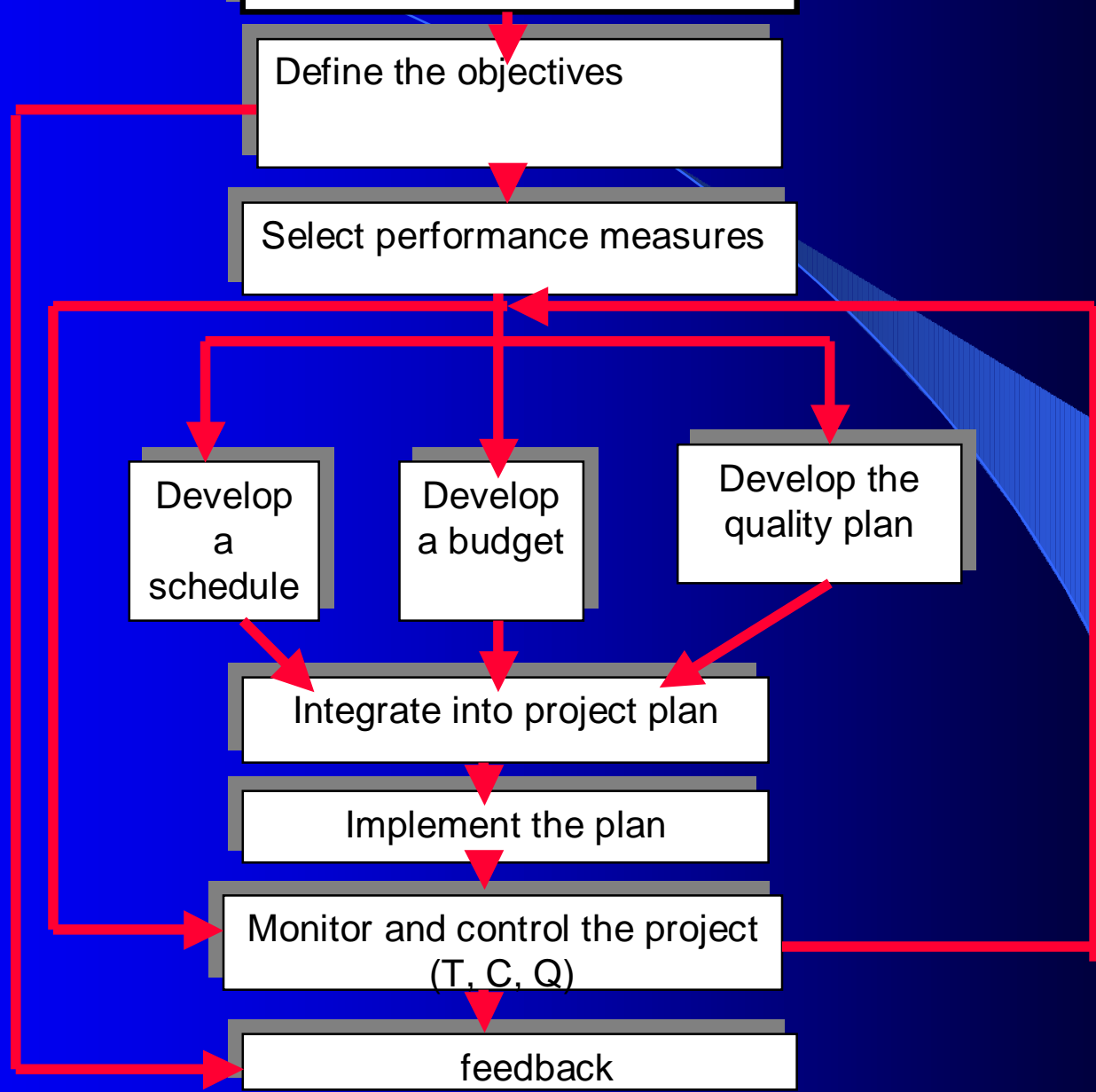
Develop the quality plan

Integrate into project plan

Implement the plan

Monitor and control the project (T, C, Q)

feedback



History of Project Management

- | First evolved during 1940s to meet challenging engineering problems (Atomic bomb, petroleum development facilities in the North Sea, US space programs)
- | 1969, PMI established in US
- | 1987, PMBOK first published
- | 1992, PMI AGC established

Why Use Project Management?

- Traditionally, lead consultants (LC) manage projects instead of qualified Project Manager(PM)
- LC does not have the management skills, PM has

Why Use Project Management?

- LC manages windows or snapshots from the project lifecycle, but PM manages the whole lifecycle.
- PM follows standards, LC does not

Project Control

- Applies during Execution Phase

Two categories:

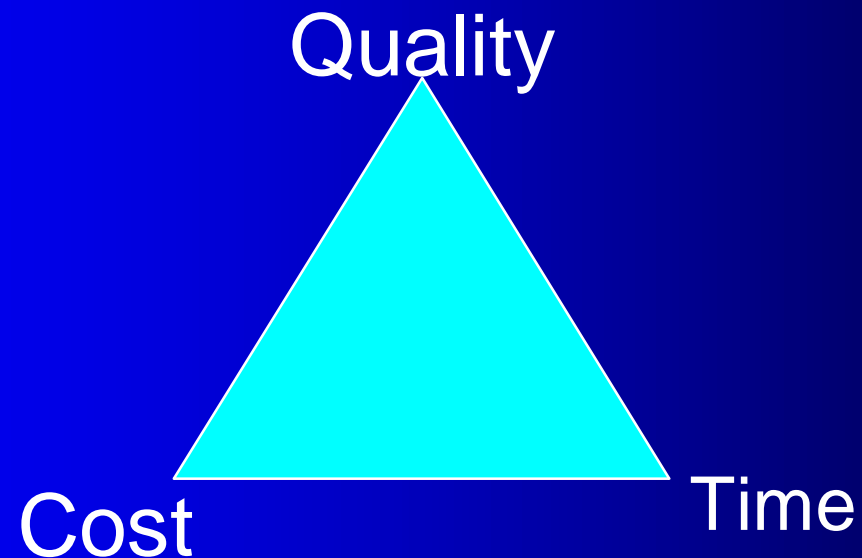
- Hard technical issues like (T, C, & Q),
- Soft issues like (Teambuilding & Leadership)

Project Control

- Hard-technical:
 - Project Time Control
 - Project Cost Control
 - Project Quality Control

Project Control

Project Performance Triangle:



Project Control

- | Project Time Control
 - Two methods:
 - | Critical Path Method (CPM)
 - | Project Evaluation & Review Technique (PERT)

Project Control

- Project Time Control
 - CPM is deterministic approach, uses known estimates of durations,
 - CPM is an activity oriented, as activities' durations determine the dates through the network

Project Control

- | Project Time Control
 - Steps of CPM:
 - | Assign Durations (Modular, benchmark, and parametric)
 - | Identify Start and finish time for each activity
 - | Locate Critical Path (No float path)

Project Control

Project Time Control

– Steps of CPM (Cont'd):

- Form Draft Master Schedule
- Re-plan by Crashing or fast-track
- Form Master Schedule

Project Control

- Project Time Control
 - PERT is a probabilistic approach, uses unknown estimates of activities' durations
 - PERT is an event oriented, it works on calculating the probability of the events being completed.

Project Control

- | Project Time Control
 - Steps of PERT:
 - | Assign 3 durations (Optimistic, Most likely & Pessimistic) for each activity,
 - | Calculate Mean and Standard deviation for each activity,
 - | Identify critical path(I.e. zero float)

Project Control

Project Time Control

– Steps of PERT (Cont'd):

- Project duration = sum of durations of activities on critical path,
- Calculate project standard deviation = sum of the squares of the individual variances or (SD)

Project Control

- Project Time Control
 - Steps of PERT (Cont'd):
 - Consider project mean & standard deviation on normal distribution,
 - $((\text{Project target duration} - \text{mean duration}) / \text{project standard deviation})$

Project Control

- Project Time Control

- Steps of PERT (Cont'd):

- Take the result on normal distribution to check the possibility of finishing on Target time or not.

Project Control

- Project Time Control
 - Recently, schedules are generated using computer programs like (MS-project or Primavera)

Project Control

- | Project Cost Control
- | Major steps are:
 - Resource planning (what are the resources needed & what quantities) to achieve activities according to WBS, resources= Manpower, machinery, materials, money.

Project Control

- | Project Cost Control
- | Major Steps (Cont'd):
 - Cost estimating of the resources needed to complete the activities according to the WBS
 - Cost budgeting=total cost estimates to individual work item
 - Cost control= (CV & SV)

Project Control

I Project Cost Control

CV is cost variance,

$$CV = BCWP - ACWP$$

SV is schedule variance,

$$SV = BCWP - BCWS$$

Project Control

- | Project Cost Control

- | $CV = BCWP - ACWP$

$BCWP > ACWP$ (WP cost less)

$BCWP < ACWP$ (WP cost more)

$BCWP = ACWP$ (WP on budget)

Project Control

- | Project Cost Control

- | $SV = BCWP - BCWS$

$BCWP > BCWS$ (W ahead of S)

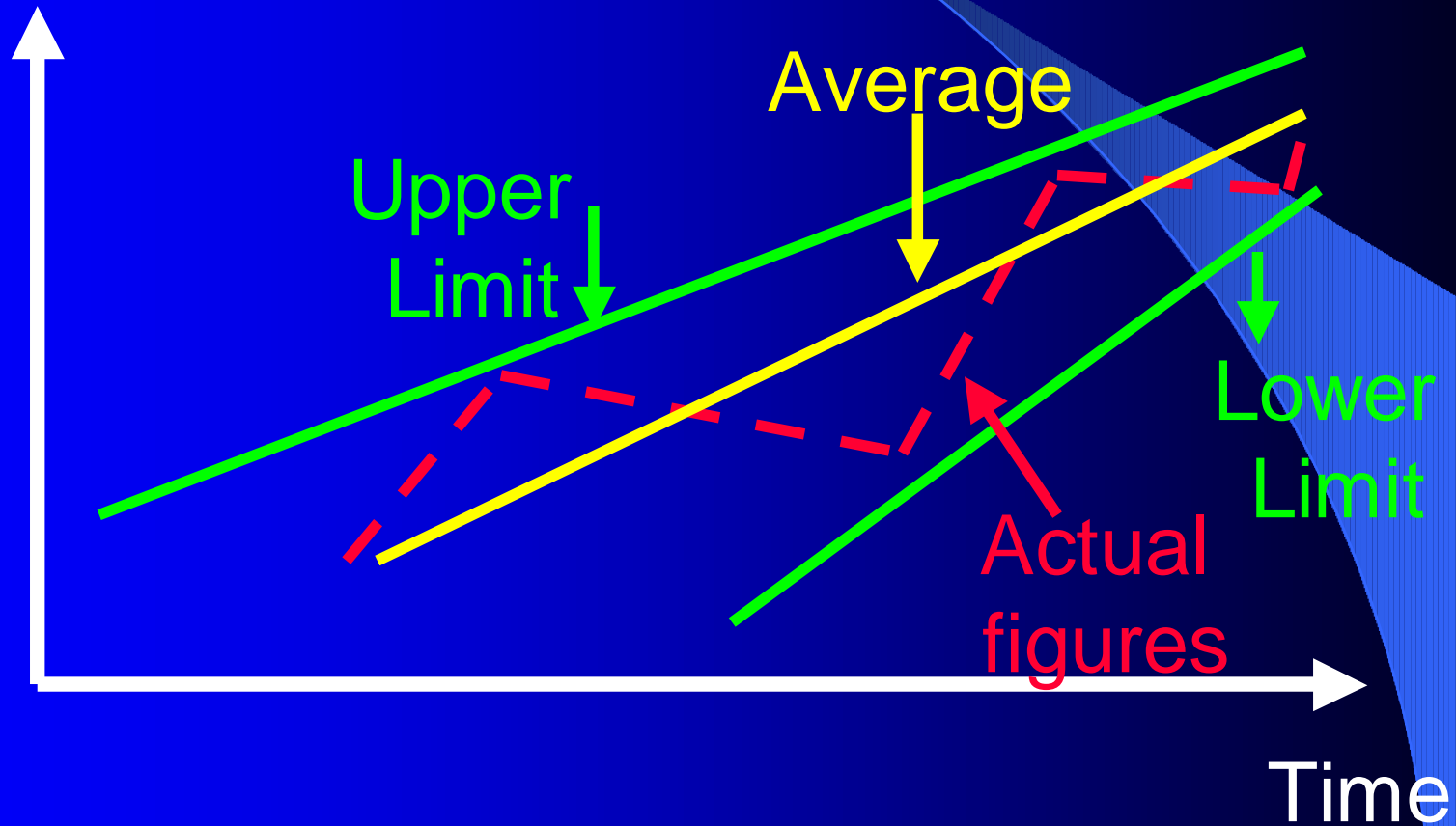
$BCWP < BCWS$ (W behind S)

$BCWP = BCWS$ (W on S)

Project Control

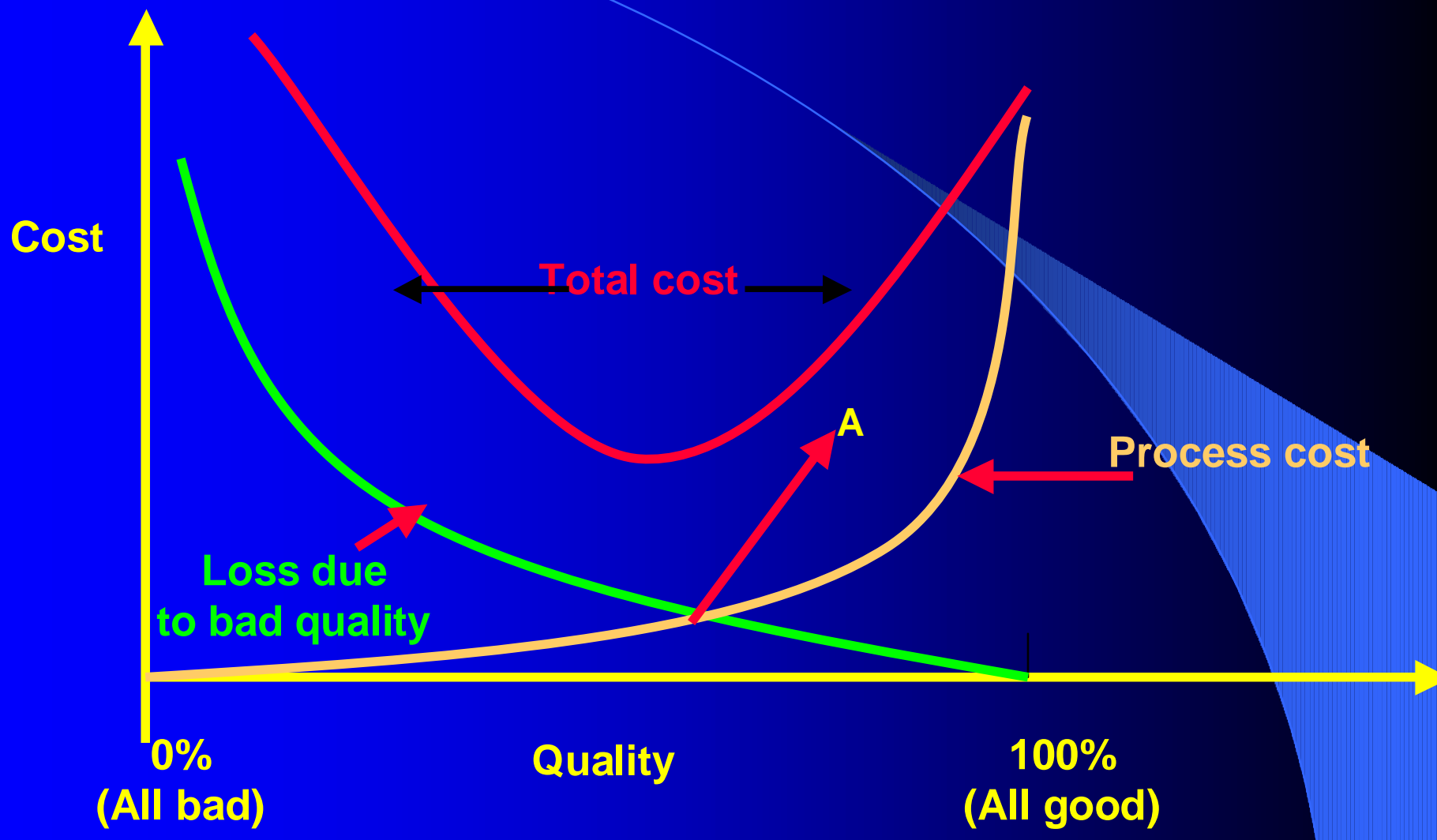
Typical Variance Envelope

Cost



Project Control

- | Project Quality Control
- | Three major steps:
 - Q planning (identify what Q standards to follow)
 - Q Assurance (setting measures like ISO)
 - Q Control (monitoring quality during the process)



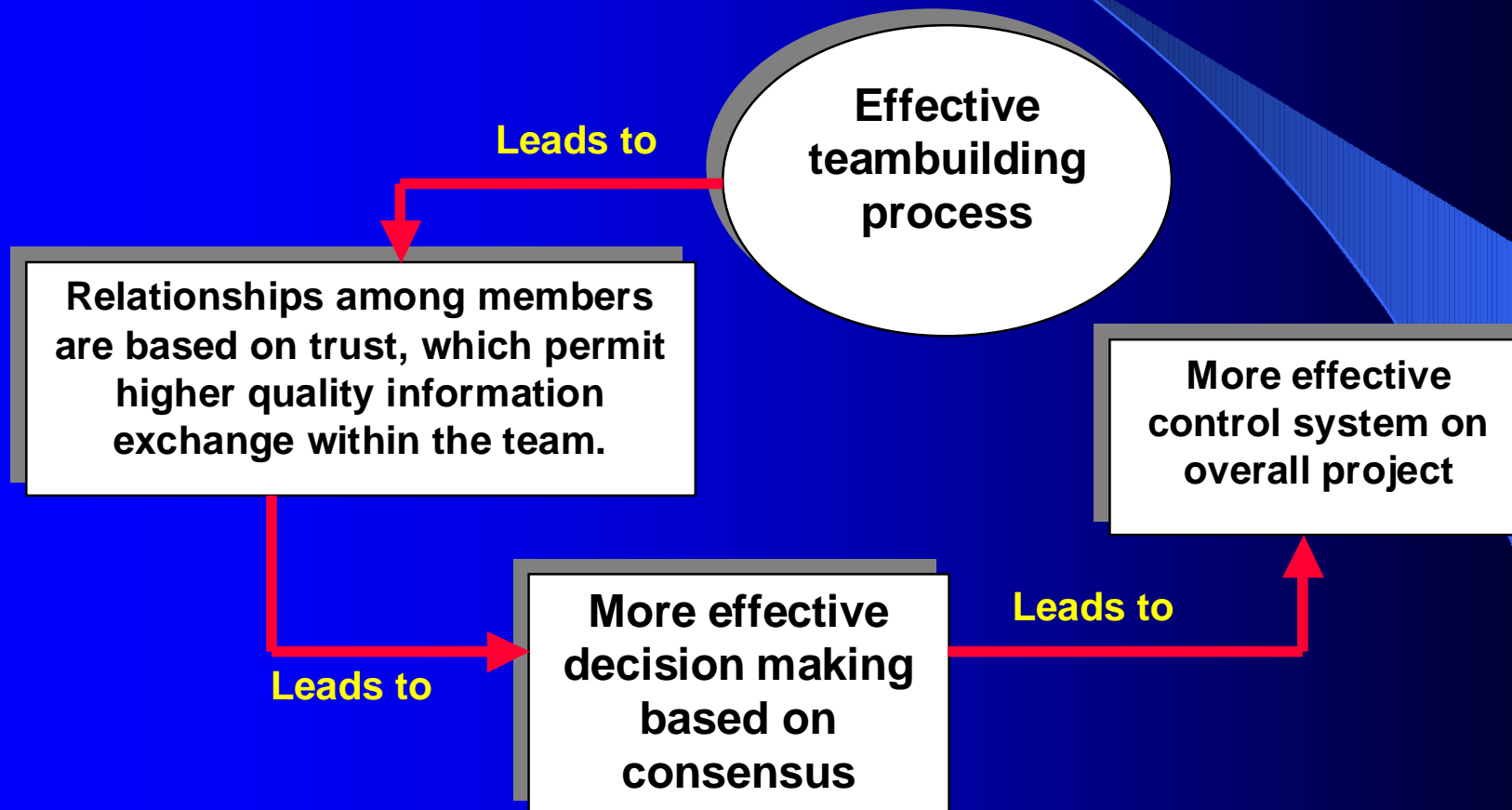
Project Control

- | Soft Issues:
 - Team-building (it involves taking individuals from different functional divisions and welding them into a uniform coherent team).
 - Effective Team means good project performance

Project Control

- | For smooth team-building process, PM needs to ensure:
 - Team members committed to the project,
 - Good interpersonal relations and team spirit,
 - The necessary expertise & resources,
 - Clear goals & objectives,
 - Good project leadership
 - Open communication

Benefits of effective Team building process



Project Control

- | Barriers to effective team-building:
 - Conflict of interest,
 - Not clear responsibilities,
 - Not clear objectives,
 - Fast changes in the project environment
 - Competition over leadership,
 - Lack of commitment,
 - Not clear communication lines
 - Lack of senior management support.

Project Control

I Soft issues

- Leadership is “a dynamic process in a group whereby one individual influences the others to contribute voluntarily to the achievement of group tasks in a given situation” *Cole, 1996*

Project Control

- | Project manager need to be a good leader to better control the project
- | Some traits of good leader:
 - Decision making ability
 - Problem solving ability
 - Interpersonal skills
 - Ability to handle conflict
 - Communication skills.

Project Control

- | Types of leaders:
 - Charismatic: gains strength by personality,
 - Traditional: assured position by birth (kings)
 - Situational: influence is gained by being at the right place at the right time (Project Manager)

Project Control

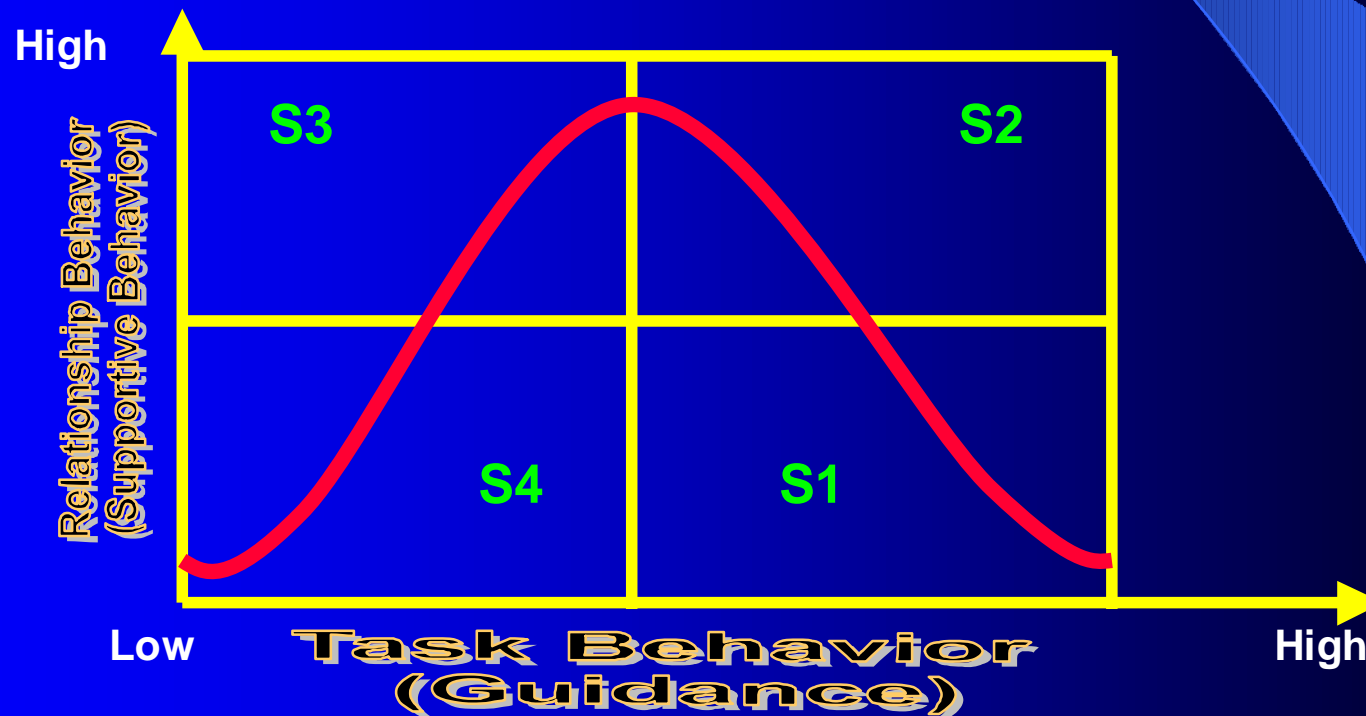
- | Types of leaders (cont'd):
 - Appointed: gains power by position (directors)
 - Functional: gains power by what he/she does

Project Control

- Project manager needs to gain sufficient knowledge about the project, the team and the external environment in a short period of time to be able to lead.
- The concept of lifecycle leadership applies

Project Control

Model of lifecycle leadership



Project Control

- | Lifecycle leadership model
 - **S1**: provide specific instruction and closely supervise
 - **S2**: explain decision and provide opportunity for clarification,
 - **S3**: share ideas and facilitate in decision making,
 - **S4**: turn over responsibility for decisions.

Project Control

- | “To survive in the 21st century we are going to need a new generations of leaders, not managers” *Warren Bennis*

Project Control

- | The distinction between a leader & a manager:
 - The manager administers; the leader innovates
 - The manager is a copy; the leader is an original
 - The manager maintains; the leader develops

Project Control

- | The distinction between a leader & a manager (Cont'd):
 - The manager focuses on systems & structures; the leader has a long-range perspective
 - The manager asks how & when; the leader asks what & why

Project Control

- | The distinction between a leader & a manager (cont'd):
 - The manager has his/her eye on the bottom line; the leader has his/her eye on the horizon
 - The manager accepts the status quo; the leader challenges it
 - The manager does things right; the leader does the right thing

Common techniques used in PM

- | Project Risk Management
- | Project Value Management
- | Concurrent Engineering

Common Techniques used in PM

- | Project Risk Management (RM)
 - Risk is “the possibility that the actual outcome of a particular event will deviate from the expected outcome”
 - Risk is present due to high level of uncertainty.
 - Sources of uncertainty= lack of information and inability to predict future events.

Common Techniques used in PM

■ Project Risk Management

Risk Management is a structured team approach to manage risks related to projects at their lifecycle.

Common Techniques used in PM

■ Risk Management framework



Common Techniques used in PM

Risk Identification is listing all the risks that exist in the project environment and may threaten the project's performance,

Sources of risks: environment, market/industry, the company and the project.

Common Techniques used in PM

I Risk Classification

- Pure risk: no potential gain (accident)
- Speculative risk: possible loss or gain (stock market)

Common Techniques used in PM

I **Risk Analysis**

Two methods of analysis:

1. Quantitative: requires input of numerical values and statistics (sensitivity analysis, Monte Carlo simulation)
2. Qualitative: subjective, based on experience and intuition of team members.

Common Techniques used in PM

- | **Risk Response:** depends on the interpretation of the analysis and the attitude of the decision maker (risk prone or risk averse)

Response strategies= retain, reduce, transfer, and/or avoid.

Common Techniques used in PM

- Project Value Management (VM)

VM is “ a **systematic, multi-disciplinary** team approach to analyze the **functions** of projects for the purpose of achieving best value-for-money” *B. Norton, 1995*

Common Techniques used in PM

- | Project VM

Systematic: follows a generic job plan:

- | Information stage
- | Analytical stage
- | Creativity stage
- | Development stage
- | Presentation stage

Common Techniques used in PM

- | Project VM
- | **Multi-disciplinary:** uses a group of people who collectively have the overall knowledge of the project

Common Techniques used in PM

- | Project VM
- | **Functions:** unlike cost reduction techniques, VM uses function analysis system technique or FAST.

Common Techniques used in PM

- | Project VM
- | FAST involves:
 - Function definition (active verb and measurable noun)
 - Function evaluation:
 - | by finding out the lowest cost to achieve the function or “worth” of function

Common Techniques used in PM

Project VM

$$VI = \frac{\text{Worth}}{\text{Cost}}$$

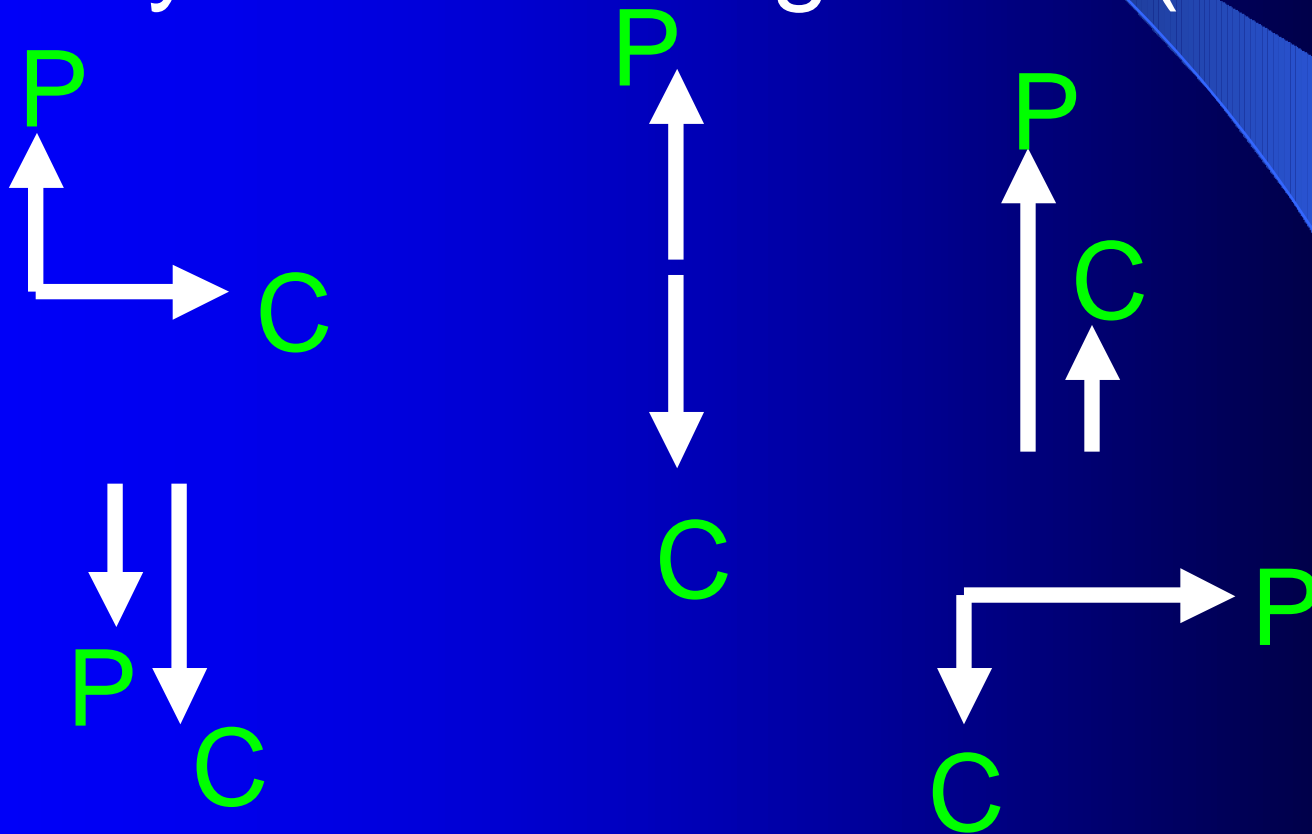
Where unity
(1) = good
value

Common Techniques used in PM

- | Project VM
- | FAST involves (cont'd):
 - Developing alternatives: by using the great technique of brainstorming.

Common Techniques used in PM

- Ways of obtaining value (*Kirk*):



Common Techniques used in PM

VM asks the following questions:

1. What is it?
2. What does it do?
3. Is it really necessary?
4. What does it cost?
5. What else will do the job?
6. What does that cost?
7. Is the new idea practical?
8. What is the probability of acceptance & implementation?

Common Techniques used in PM

■ Concurrent Engineering (CE)

CE is a tool used to cut down the overall period of the project by overlapping some of the phases for making & delivering goods & services faster than competitors.

Common Techniques used in PM

I Concurrent Engineering

The features of projects that are suitable for CE:

- Of a development type
- Team has full experience about the project
- Team should know TQM
- Success does not depend on invention or innovation.

Conclusion

“if you always do what you
always did then you will always
get what you always got”

Project Management Dynamics

PROJECT LEADERSHIP

24th May 2005

By:

Program Office Unit
Corporate Development Division
Omantel

Project Leadership

AGENDA

1. Introduction
2. Leadership (overview)
3. Leadership Styles
- Activity: Leadership Matrix**
4. Leadership & Team Management
5. Leadership & Motivation
6. Key Messages

1. Introduction

Setting the mood for the Project Team

- Project Managers set the tone for their project teams. The mood of a project team will be a direct reflection of the mood the project manager carries while interacting with project team members.
- The Project Manager must effectively and comfortably wear many different “hats” when leading a project.

1. Introduction

Two Sides to Successful Projects

1. Project Management

- Administer
- Maintain
- Control
- Look for results
- Ask "How" and "When"

2. Project Leadership

- Innovate, take risks
 - Develop
 - Inspire Trust
 - Look for potential
 - Ask "Why"
- تركز على الإنجاز والأداء في الوقت الحاضر.
- تركز على المعايير وحل المشكلات وإتقان الأداء والاهتمام باللوائح والنظم واستعمال السلطة.

قيادة المشاريع

- تركز على العلاقات الإنسانية وتهتم بالمستقبل.
- تحرص على التأكد من عدم الخوف إلا في المهم من الأمور وتهتم بالروية والتوجهات الاستراتيجية وتمارس أسلوب القدوة والتدريب وقضاء الأوقات الطويلة مع الأتباع والاهتمام بهم.

Give Me A BrEak!

(1)

1. Leaders are "born"; no amount of skill training can make someone a leader without the right genetics.

TRUE

OR

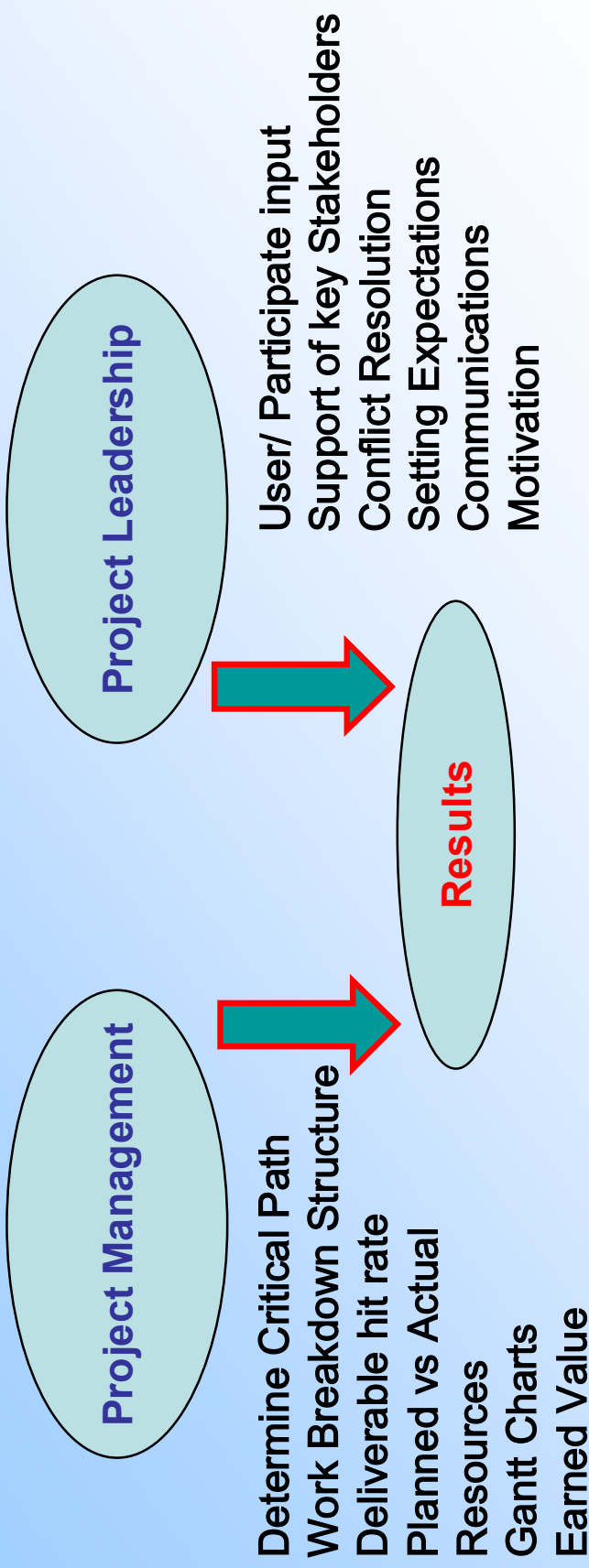
FALSE

Correct Answer: **False.**

Leadership can be taught and learned as can the principles and habitual actions of leaders. The first step is to "model" the behavior you'd like people to follow.

1. Introduction

Two Sides to Successful Projects



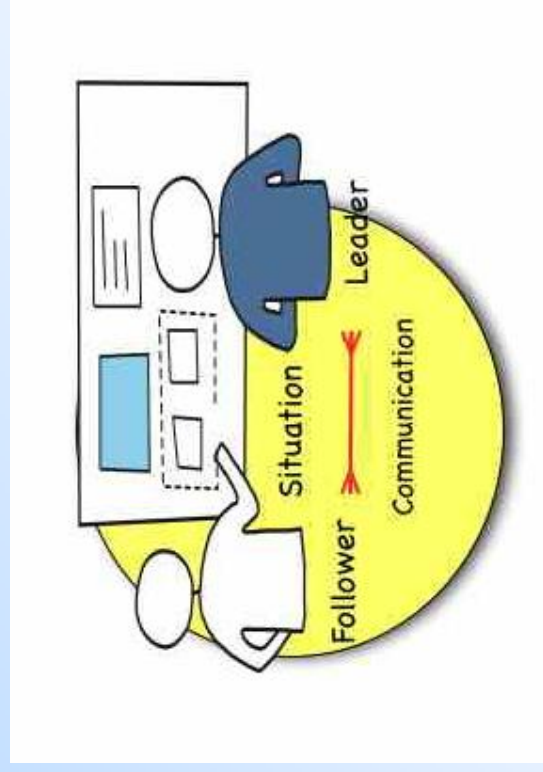
The Project Management Miracle

القيادة والإدارة بشكلان جناحي الإنجاز والنجاح

1. Introduction

Project Management

The **ART** of directing & coordinating human resources throughout the life of a project by using modern management techniques to achieve the predetermined objectives of **scope, quality, time & cost**, and participant **satisfaction**.



2. Leadership

Definition of Leadership

Leadership is the **ART** of getting others to want to do something that you are convinced should be done. -

“Vance Packard”

أبسط تعريف للقيادة :

هي القدرة على التأثير على الآخرين وتوجيه سلوكهم لتحقيق أهداف معينة

Give Me a BrEak!

(2)

2. How do great leaders spend most of their time?

- A. Working on the tasks of the organization
- B. Planning and working on relationships
- C. Putting out “fires” and in emergencies
- D. In therapy
- E. All of the above

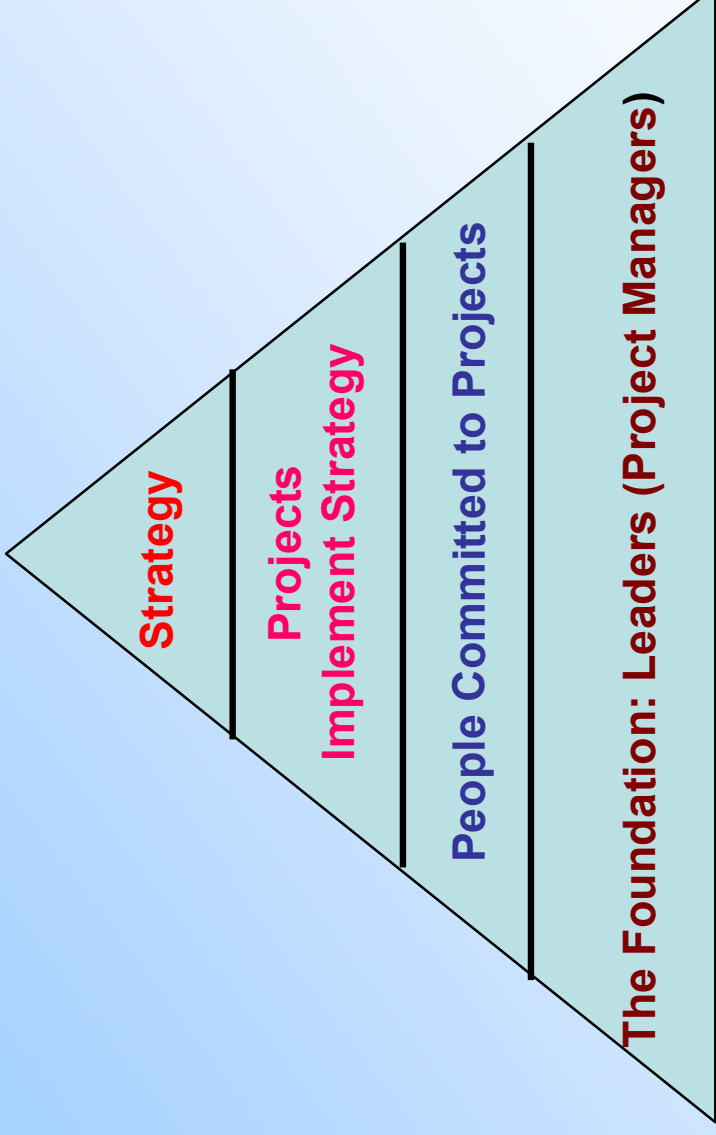
Correct Answer: B) planning and working on relationships -
It's amazing how many famous leaders, from presidents to CEO's are accessible. You see presidents of great countries out on the golf course and water-skiing with their families. Yet owners of small companies often work themselves death. Leadership is not "doership" or wasting time. It's service and enablement.

2. Leadership Changes in Leadership

- **Traditional View**
 - Wins & Develop followers
 - Is considered more competent technically than followers.
 - Focuses on, corrects, & rewards individual efforts
- **Contemporary View**
 - Is a team player
 - May not be the technical expert
 - Focuses on team performance
 - Focuses on team development
 - Uses commitment, not control.

2. Leadership

The Art of Managing Involvement



من أهمية القيادة: وضع استراتيجيات رابدة في عملية تحريك نحو هدف سام، وهي التي تسهل للمؤسسة تحقيق الأهداف المرسومة .

2. Leadership

How people become leaders

- **Personality Traits:** May lead people naturally into leadership roles.
القيادة موهبة فطرية تمتلكها فئة معينة من الناس
- **A Crisis or Important event:** May cause a person to rise to the occasion, which brings out extraordinary leadership qualities in an ordinary person.
القيادة شخصية وحكمة
- **People can choose to become leaders:** They can learn leadership skills.
القيادة فن يمكن اكتسابه بالتعلم والممارسة

Give Me a BrEak!

(3)

3. Leaders are reactive. They wait for events to occur and then react quickly.

TRUE

OR

FALSE

Correct Answer: **False**, leaders are "proactive", building and nurturing relationships, organizing the framework of organizations in line with clear missions, acquiring resources, in general, empowering organizations to take advantage of opportunities. Leaders experience fewer "emergencies" and tend to act upon less than .being acted upon.

2. Leadership

Leaders through time

"The Struggle is my life,..."

- Nelson Mandela -

"The Price of greatness is responsibility"

- Winston Churchill -

*" I have a dream that one day this nation will rise up
and live out the true meaning of its creed..."*

- Martin Luther King -

وقديماً قال القائد الفرنسي نابليون ((جيش من الأرائب يقوده أسد ، أفضل من جيش من أسود يقوده أرنب))

2. Leadership

Most Important keys to effective leadership

1. Trust & Confidence
2. Effective Communication

To be an effective leader, you **MUST BE**

1. Trustworthy & Able to Communicate a vision
2. Involved in the Task
3. Persistent in pursuing the Vision in spite of Setbacks & Difficulties

متطلبات القيادة هي :
(أ) فن التأثير
(ب) فن الاتصال

3. Leadership Styles

- Leadership style is the manner and approach of providing **direction**, **implementing plans**, and **motivating people**. There are 4 different styles of leadership
 1. Autocratic القيادة المتسلطة
 2. Democratic القيادة الجماعية (المشاركة)
 3. Consultative القيادة الاستشارية
 4. Delegative القيادة المتسلطة العادية
- A leader **matches the proper talent** to the requirement of the job.
- **Different leadership styles are required** for different projects.

Give Me a BrEak!

(4)

4. The most important action of a leader is service.

TRUE OR FALSE

Correct Answer: **True**.
Great leaders serve those they lead, getting them the tools, teaching them, modeling the way for them .

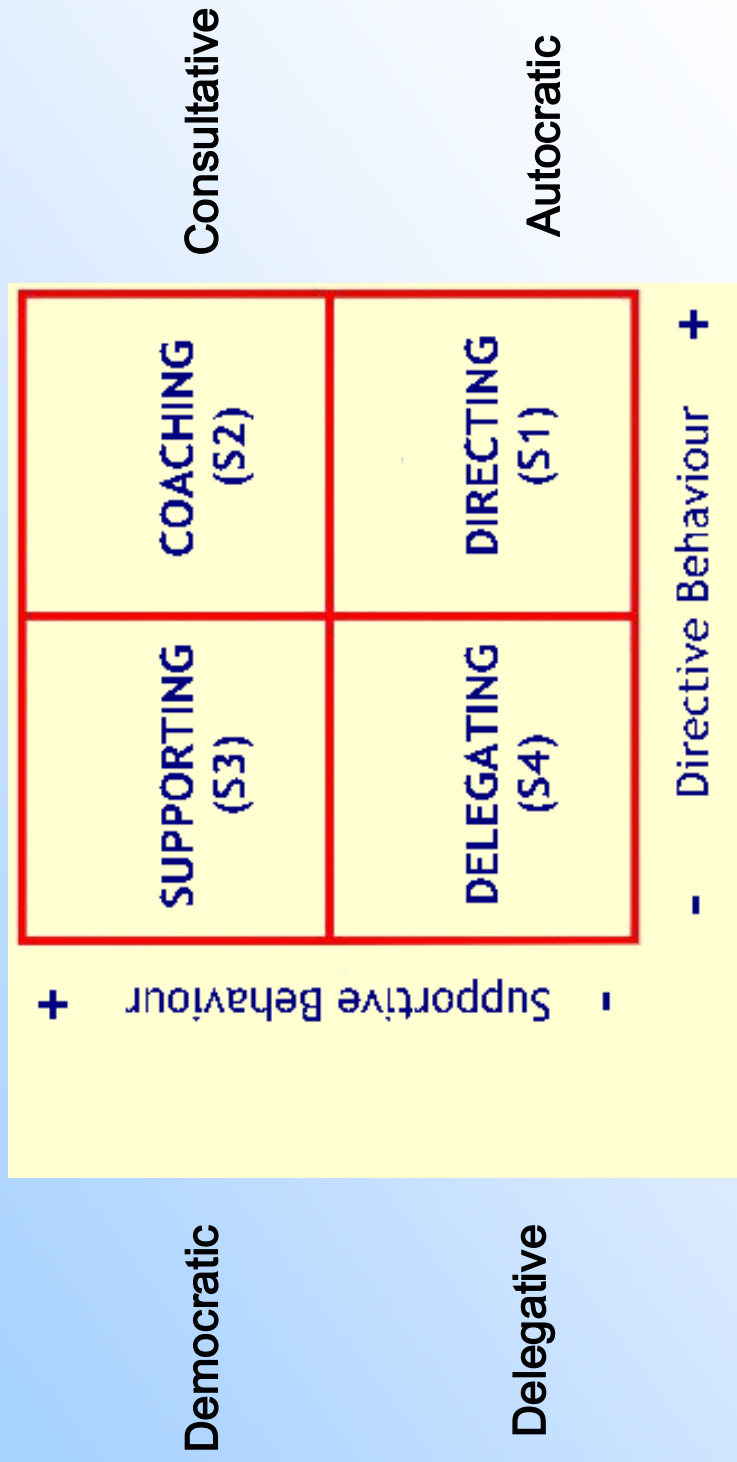
3. Leadership Styles

Power Styles

- **Authoritarian (Autocratic/Directive):** The leader tells his/her employees what he/she wants to be done, without getting the advice of their people.
القائد الموجه D: إخباري •
- **Participative (Democratic):** The leader includes one or more employees in the decision making process (determining what to do and how to do it). The leader maintains the final decision making authority.
القائد المساعد S: مشارك •
- **Consultative:** Tells team how problem solving will be approached
القائد الرئيسي C: استشاري •
- **Delegative:** The leader allows the employees to make the decision. The leader is still responsible for the decisions that are made.
القائد المفوض D: مفوض •

3. Leadership Styles

Situational Leadership Model



3. Leadership Styles

Leadership Forces

- A good leader uses ALL four styles, depending on what **forces** are involved between, the **Followers**, The **Leader** & The **Situation**
- Example of Forces that influence the style to be used:
 1. Time إدارة الوقت
 2. Relationships العلاقات بين الأفراد
 3. Information Owner المعلومات
 4. Skills المهارات
 5. Conflicts إدارة الصراع
 6. Stress Level مواجهة الضغوط
 7. Type of task نوع العمل
 8. Law or established procedures القوانين والنظم

Give Me a BrEak!
(5)

5. Great leaders build courage in their •
teammates by demonstrating:

- A. Power
- B. Confidence
- C. Trust
- D. Wealth

Correct Answer: **C) trust** -

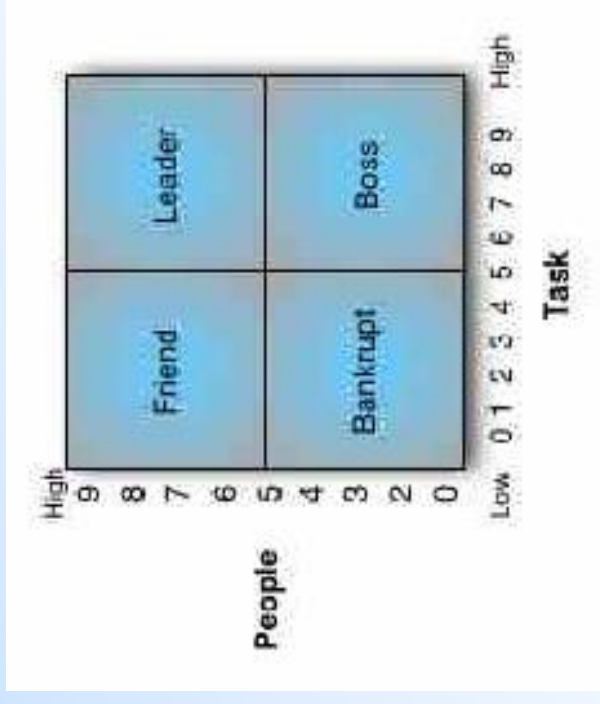
Trust comes from demonstrating trustworthiness and also by building and maintaining an atmosphere of trust.

Activity

Leadership Matrix

Objective: To determine the degree that a person likes working with tasks and people.

1. Complete the Questionnaire
2. Transfer Answers to the PEOPLE Table and TASK Table
3. Multiply the TOTAL of PEOPLE by 0.2 and TOTAL of TASK by 0.2 to get FINAL SCORE
4. Plot the FINAL SCORES on the Shown Graph
5. Draw Horizontal Line for PEOPLE Final Score
6. Draw Vertical Line for TASK Final Score
7. The area of Intersection is the Leadership Dimension



Questionnaire will be distributed.

4. Leadership & Team Management

- A team is a group of people coming together to collaborate to reach a shared goal or task.
- **Elements of a team**
 - A common team goal
 - Productive participation of all members
 - Communication
 - Trust
 - A sense of belonging
 - Diversity
 - Creativity & Risk Taking
 - Evaluation
 - Change compatibility
 - Participatory leadership

4. Leadership & Team Management

A Project Manager MUST

- Be enthusiastic
- Develop a Sense of Urgency
- Set Clear Rules
- Keep the team informed
- Reinforce works wonders

من عناصر القيادة هي :
- وجود مجموعة من الأفراد .
- الاتفاق على أهداف للمجموعة تسعى للوصول إليها .
- وجود قائد من المجموعة ذو تأثير وفكر إداري وقرار صائب وقادر على التأثير الإيجابي في سلوك المجموعة .

4. Leadership & Team Management

Team Players Styles

1. **Contributors:** Are task oriented members who enjoy providing the team with good technical information & data. They push the team to set high standards.
2. **Collaborators:** Are goal directed members who see the vision, mission, & goal of the team. They are flexible and open to new ideas, willing to work outside their defined roles.
3. **Communicators:** Are process oriented who are effective listeners and facilitators of involvement, conflict resolution, consensus building, feedback and the building of an informal relaxed climate.
4. **Challengers:** Are adventurers who question the goals, methods and ethics of the team. They are willing to disagree with the leader and higher authorities, and encourage the team to take well-conceived risks.

Give Me a BrEak!

(6)

6. Great leaders fail. What makes them great leaders is their reaction to failure. Poor leaders react to failure in which of the following ways?

- A. Push the responsibility for failure onto others
- B. Acknowledge the failure, consider their values and principles, then change
- C. Ask for help and guidance from everyone the failure affected
- D. Look for creative ways to succeed

Correct Answer: A) push responsibility to others -

Great leaders, being publicly and internally accountable, never push the responsibility of failure onto others, even when others fail. Great leaders know that, by doing this, they empower themselves to ask for, create and help institute solutions . .

4. Leadership & Team Management

Team Development

The Five team development phases are:

- Forming:** Transition from individual to member status.
مرحلة التكوين: تحديد مجموعة من الأشخاص ودراسة واقعهم من كافة النواحي
- Storming:** Team begin to realize that tasks ahead are different and more difficult than they imagined. They try to rely solely on their professional experience and resist collaborating with most of the other team members.
مرحلة التقييم: تقييم فيها المجموعة بناء على معايير محددة سابقاً، حيث يكشف فيها جوانب القصور والتميز والتفاوت في القدرات.
- Norming:** Enthusiasm is high, and the team is tempted to go beyond the original scope of the process. Emotional conflict is reduced as previously competitive relationships become more cooperative.
مرحلة التأهيل: يتضح مما سبق جوانب القصور والضعف في الشخصيات، وبناء عليه تحدد الاحتياجات التدريبية حسبما تقتضيه الحاجة العملية

4. Leadership & Team Management Team Development (Cont'd.)

- 4. Performing:** Team has settled its relationships and expectations. They can begin performing by diagnosis, solving problems and choosing and implementing changes.
مرحلة التكليف: بعد التدريب والتأهيل يختار مجموعة منهم في مواقع قيادية متفاوتة المستوى والأهمية لفترات معينة لنضع الجميع على محك التجربة.
- 5. Adjourning:** The team briefs and shares the improved process during their phase. More relationships formed within these teams continue long after the team disbands.
مرحلة التمكين: بعد أن تأخذ هذه العناصر فرصتها من حيث الممارسة والتجربة تتضح المعالم الأساسية للشخصية القيادية لكل واحد منهم ثم تفوض لهم المهام حسب قابليتهم لها ومناسبتها لهم.

4. Leadership & Team Management

Team Leadership

A Project Leader needs to:

- Challenge the Process:
 - Search the Opportunity
 - Experiment and teak risks
- Inspire a shared Vision:
 - Envision the Future
 - Enlist others
- Enable others to Act:
 - Foster Collaboration
 - Strengthen others
- Model the Way:
 - Set the Example
 - Plan Small Wins
- Encourage the Heart:
 - Recognize individual contribution
 - Celebrate accomplishments

من واجبات قائد المشاريع:

- تحويل أهداف المجموعة إلى نتائج وإنجازات.
- حفز الأفراد ودفعهم لتحقيق أهداف المؤسسة وأهدافهم الشخصية.
- قابلية التعامل مع المتغيرات والمؤثرات ذات المساس المباشر وغير المباشر بالمؤسسة والأفراد.
- استشراف المستقبل والتخطيط له فيما يتعلق بالمؤسسة وأهدافها وخططها وأفرادها.
- إعداد جيل جديد من قادة المستقبل.

Give Me a BrEak! (7)

7. To lead with courage, what is the most surprising element learned by budding leaders? •

- A. Knowledge
- B. Time
- C. Fear
- D. Money

Correct Answer: **C) fear** -

There is no courage without fear. And fear is individual. One person may walk across a tightrope without fear while another may tremble walking up stairs. Great leaders use the fear within as a measure of their courage and take the next step anyway.

4. Leadership & Team Management

Are you ready to be a leader?

- Are you comfortable in sharing leadership and decision making with your team members?

- هل تستخدم صلاحياتك وتطبق سلطتك؟
- هل يشعر أفرادك بالأمن والقوة إلى جانبك ؟
- هل تتميز بحيوية ونشاط دائمين وتضحية كبيرة ومواهب مميزة؟
- هل تتميز بالحضور في كل زمان ومكان؟
- ما هي قيمة الخدمة الاجتماعية عندك؟ وهل تعرف ما هي حاجات الناس من حولك؟
- هل لديك القدرة على التركيز الذهني؟
- هل لديك القدرة على حل المشكلات واتخاذ القرارات؟
- هل لديك ثقافة أفضية عريضة + امتداد عامودي متخصص؟ قادة الرأي.
- أيهما أولى عندك: كسب القلوب أم كسب المواقف؟
- هل تعترف بالخطأ وتراجع قصورك الذاتي دائماً؟

Give Me a BrEak!

(8)

8. You can be the best leader possible at work and yet a poor leader at home.

TRUE OR FALSE

Correct Answer: False.
Mahatma Gandhi said it best: "One cannot do right in one department of life whilst doing wrong in any other department. Life is one indivisible whole." .

5. Leadership & Motivation Definition

- The process, action, or intervention that serves as an **incentive**.
- Motivation gives team members **sense of pride** of community.
- Team members will **work hard to accomplish** something they believe in.
- Motivation is a combination of **desire & energy** directed at achieving a goal. It depends on:
 1. The Strength of certain needs
 2. The Perception that taking a certain action will help satisfy those needs.

People can be motivated by **beliefs, values, interests, fear, worthy causes** & other such forces.

مصادر قوة القيادة وتأثيرها:
1 - قوة الإكراه. 2 - قوة المكافأة. 3 - القوة الشرعية أو القانونية. 4 - القوة الفنية. 5 - قوة الإعجاب.

Give Me a BrEak! (9)

9. You take the leadership position of a company. How long until you are truly the leader?

- A. As soon as you sign the contract
- B. As soon as you have voted into the office
- C. In Three Months
- D. In twenty years, once you have established seniority in the corporation
- E. None of the above

Correct Answer: **E) none -**

Leadership is not a matter of time, or contracts, or even politics. It's a matter of sharing and serving people until they find you trustworthy and they trust you. You may temporarily get them to follow your orders, but leadership aimed at actualizing any mission which take more than one person to accomplish requires the deep foundation be laid.

5. Leadership & Motivation Types

- **Trust Building:** Teams who trust their leader will accept final decisions, irrespective of whether they are in complete agreement with it.
- **Enthusiasm:** Enthusiastic leaders are committed to their goals and express this commitment through optimism.
- **Empowerment:** The creation of an environment in which team members have a real influence over standards of quality and effectiveness within their areas of responsibility through involvement in problem solving, knowledge sharing and examining of project progress and problems.
- **Delegation:** Trust plays an integral part in the ability to delegate.
- **Rewarding:** Through providing the BEST act of delivering “Thank you”!

من فنون القيادة والتحفيز:

- فن إصدار الأوامر.
- فن التعاون مع الآخرين.
- فن المكافأة والتشجيع.

Key Messages

- Effective leaders establish a clear vision of where they are going and get others to buy into it.
- They do this by involving themselves in the task, so that they feel ownership for it.
- Leaders are made, they are not born

يقول وارن بلاك: "لم يولد أي إنسان قائداً، القيادة ليست ميرمجة في الجينات الرأئية ولا يوجد إنسان مركب داخلياً قائداً".

Key Messages

يرشدنا النبي صلى الله عليه وسلم إلى إمكانية اكتساب صفات القيادة بالممارسة والتعلم فيقول:
'ومن يستعفف يعفه الله، ومن يستغن يغنه الله، ومن يتصبر يصبره الله، وإنما العلم بالتعلم.'

صدق رسول الله صلى الله عليه وسلم

Project Management Dynamics

- Project Leadership -

Thank You for your participation.

With Best Regards,
Program Office Unit Team

Oman Telecommunications Company

(Omantel)

Enterprise Project Management

AGENDA

- Ø **Project Management Role**
- Ø **Organization Structures**
- Ø **The State of the Art Processes**
- Ø **The Assignment**
- Ø **Overview of Omantel's Project Processes**
- Ø **Project Management Maturity Matrix**
- Ø **Proposed Project Life Cycle**
- § **Conclusion**

1. Project Management Role

1.a What is a “Project”

- Organized effort aimed at completing a task
- Defined scope, schedule, cost, and quality targets
- Managed by a single, responsible organization
- Performed by one or more organizations

What is a “Program”

- Pooled set of projects categorized under one group such as GSM and FIXED

1.b What is Project Management

DEFINITION:

- A systematic business process for managing one or more projects
- A disciplined approach for managing schedules, resources and costs across a portfolio of projects using standard methods, tools, and systems

OBJECTIVES:

- To make sure the deal (cost and schedule) is do-able.
- Use integrated schedules to manage the on-time execution of the program to deliver what we committed to the customer.
- Deliver Financial Commitments to OmanTel

BENEFITS:

- Project Management provides the project manager with a studied, established, functional process and procedures for managing complex work efforts.
- Project Management provides the corporation with a standard set of reporting capabilities and common terminology.

1.c Need for Project Management Office(PMO)

- To establish and deploy a common set of project management processes, templates and procedures
- To help projects start-up more quickly and less efforts
- To build the methodology and update it continuously
- To improve project team communications by having common processes, deliverables, and terminology
- To setup common repository that prior project management deliverables can be reused by similar projects
- To provide training to build core project management competencies and common set of experiences
- To provide coaching services to keep projects from getting into trouble
- To track basic information on the status of ALL projects in the organization, and provide project visibility to upper management
- To track organization-wide metrics on the state of PM, project delivery and the value being provided to the business by project management in general
- To act as an overall advocate for project management to the organization

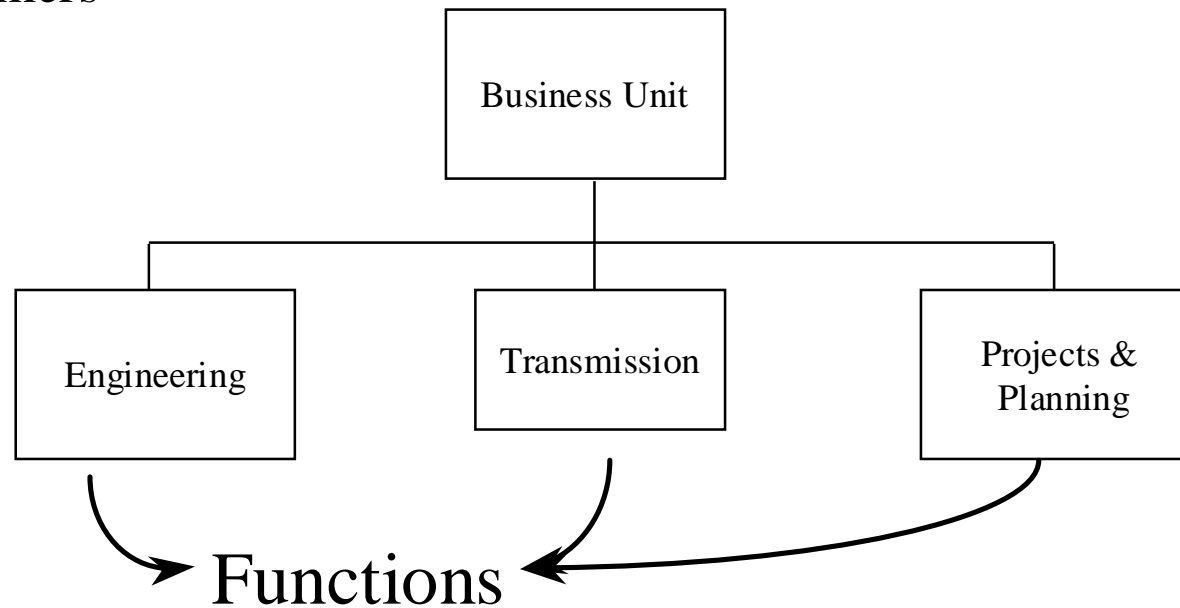
2. Organization Structures

Who is in charge of that?

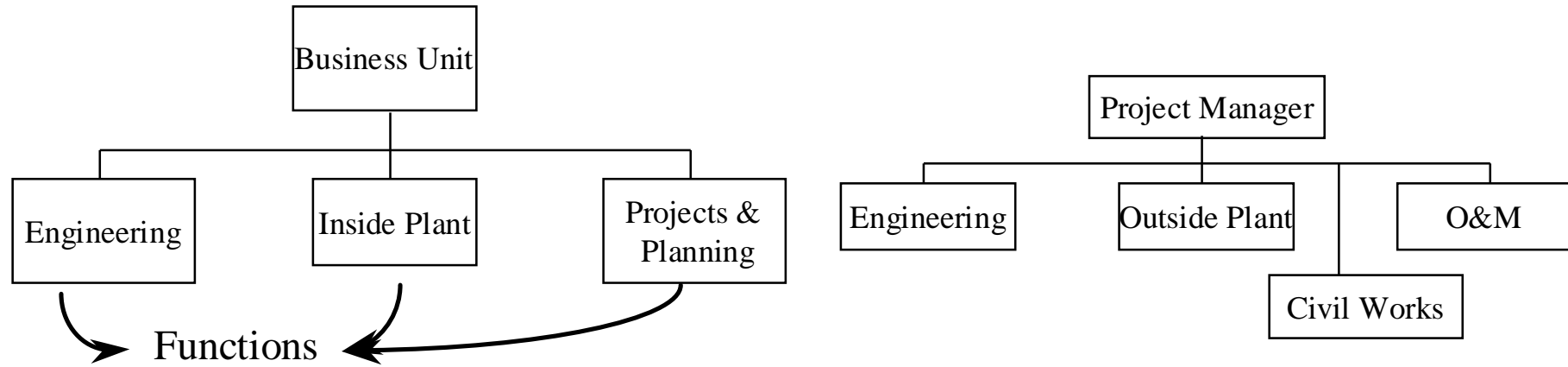
- **Functional**
 - Manages functional area
 - Supports multiple programs or projects
 - Measured on effective staff use, costs, quality
- **Matrix**
 - Combines both Functional and Project Organizational structures while managing projects
 - Produces more visibility on all project activities
 - Optimum structure for organization structure
- **Project**
 - Focused on the accomplishment of the project
 - Manages all functions necessary to meet objectives
 - Disbands at the end of the project

2.a Functional organization?

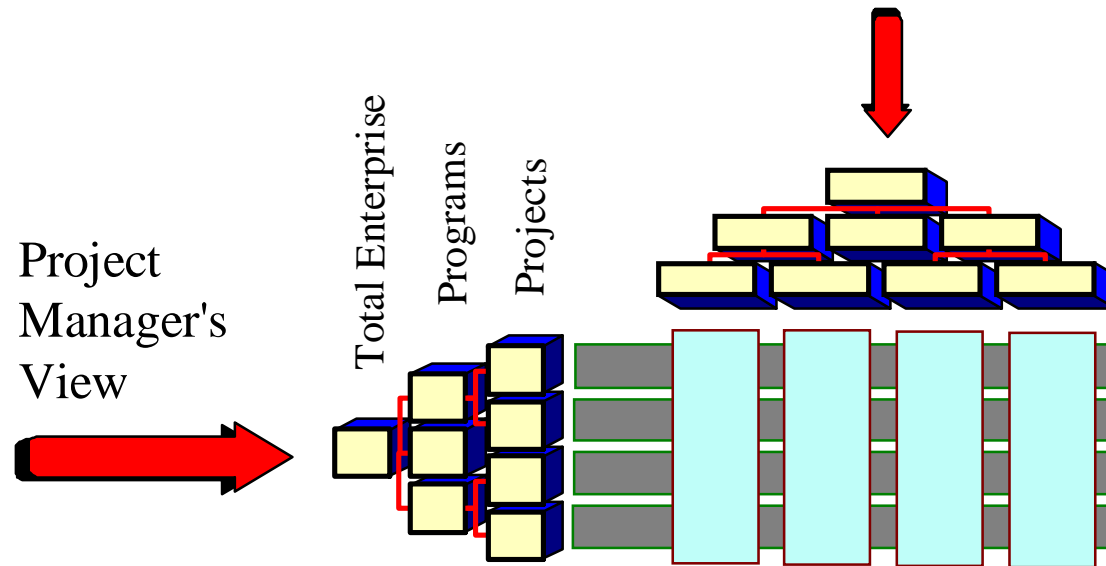
- Functional areas include engineering, Inside & Outside Plant, Civils, Contracts, etc.
- Primary responsibility is to develop and manage staff in support of various programs and projects
- Functional employees report to the functional manager
- These functions may support multiple projects or programs for external customers



2.b Matrix organization



Functional Manager's View

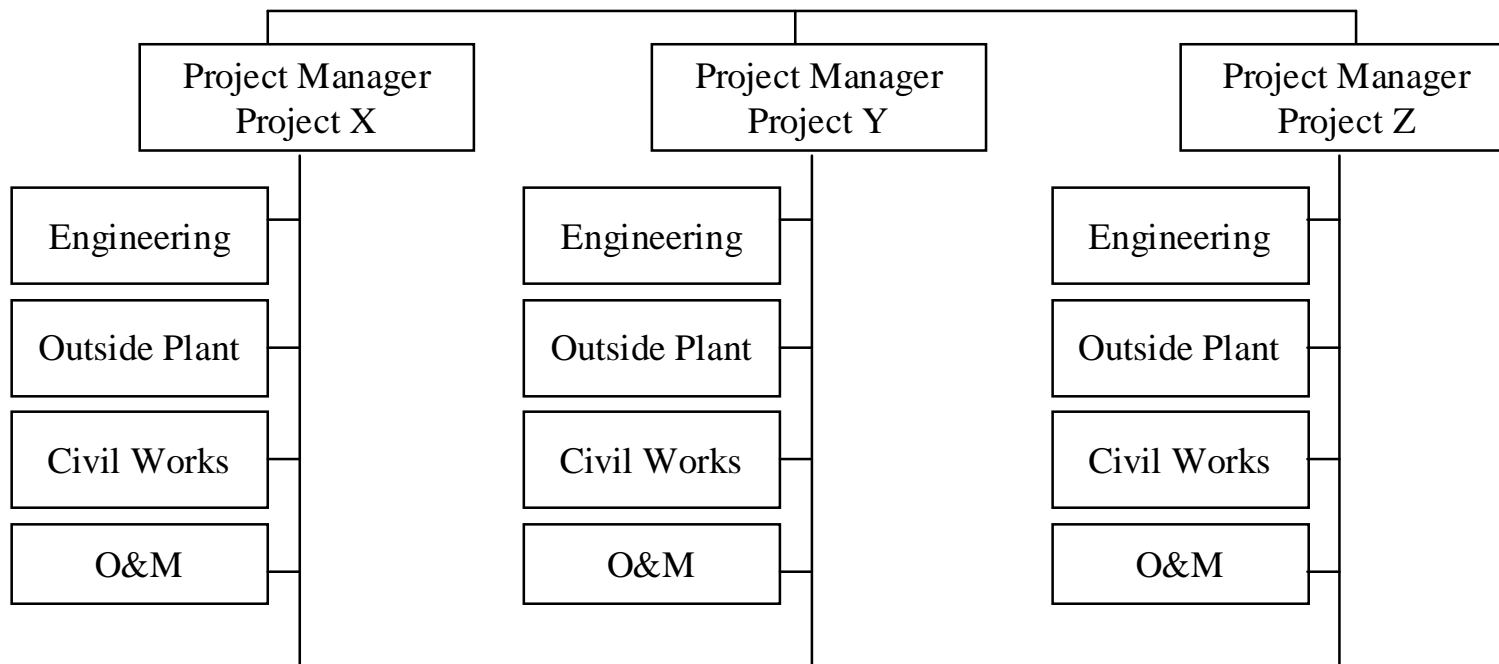


The matrix manager draws from a pool of resources owned by the functional manager.

This approach requires significant communication, cooperation - trust.

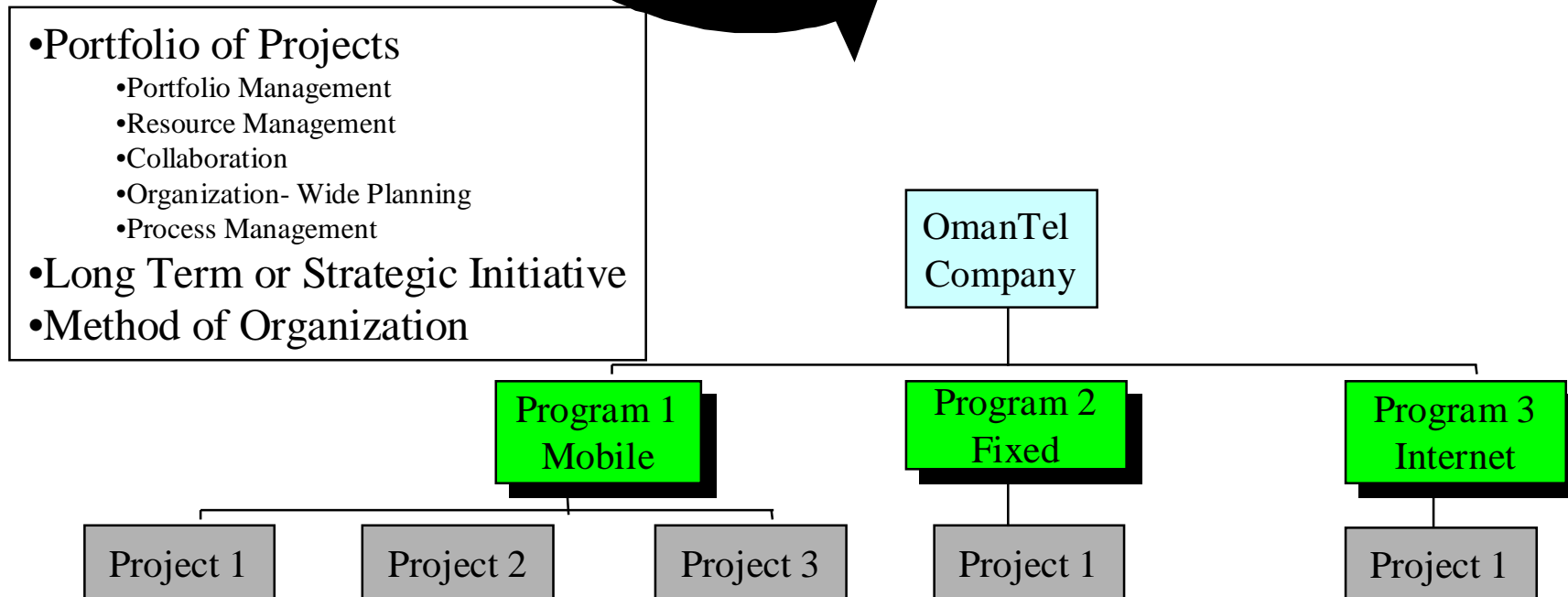
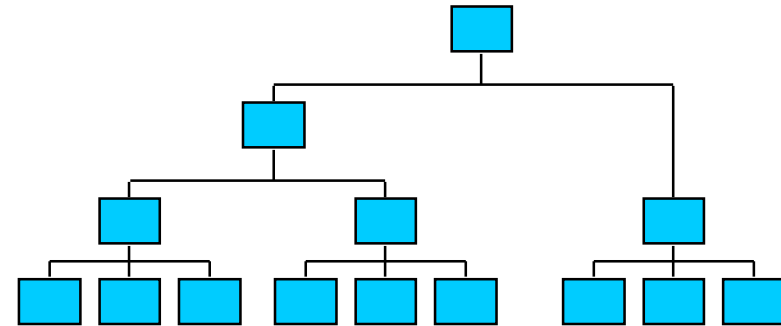
2.c Project organization

- Project organizations are basically self-contained units focused on the achievement of the project deliverables
- The Project manager hires functional support and the personnel directly report to the Project Manager
- The project organization lives only as long as the project

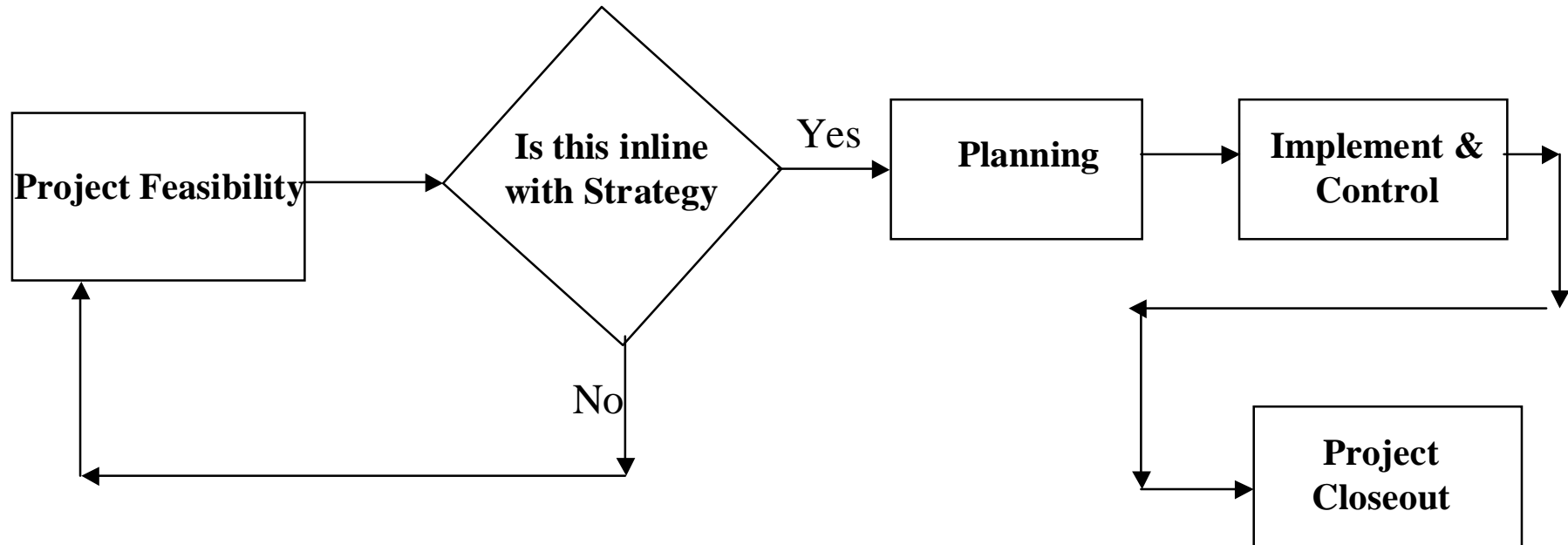


2.d Enterprise Project Management (EPM)

To bring order from the chaos.

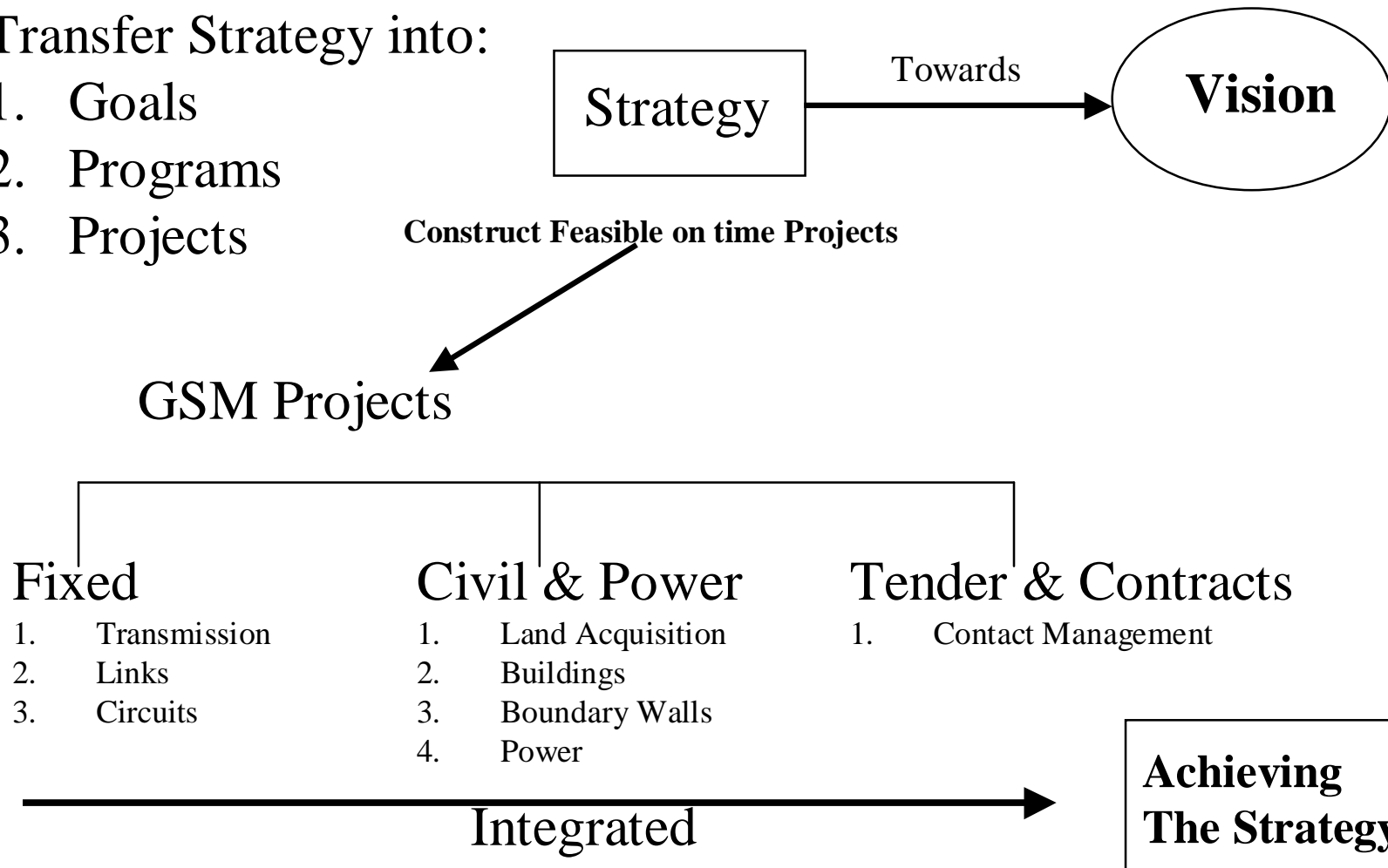


2.e EPM Processes



2.f Example of EPM

- Need Strategy to Achieve a Vision
- Transfer Strategy into:
 1. Goals
 2. Programs
 3. Projects



3. The State of the Art Processes

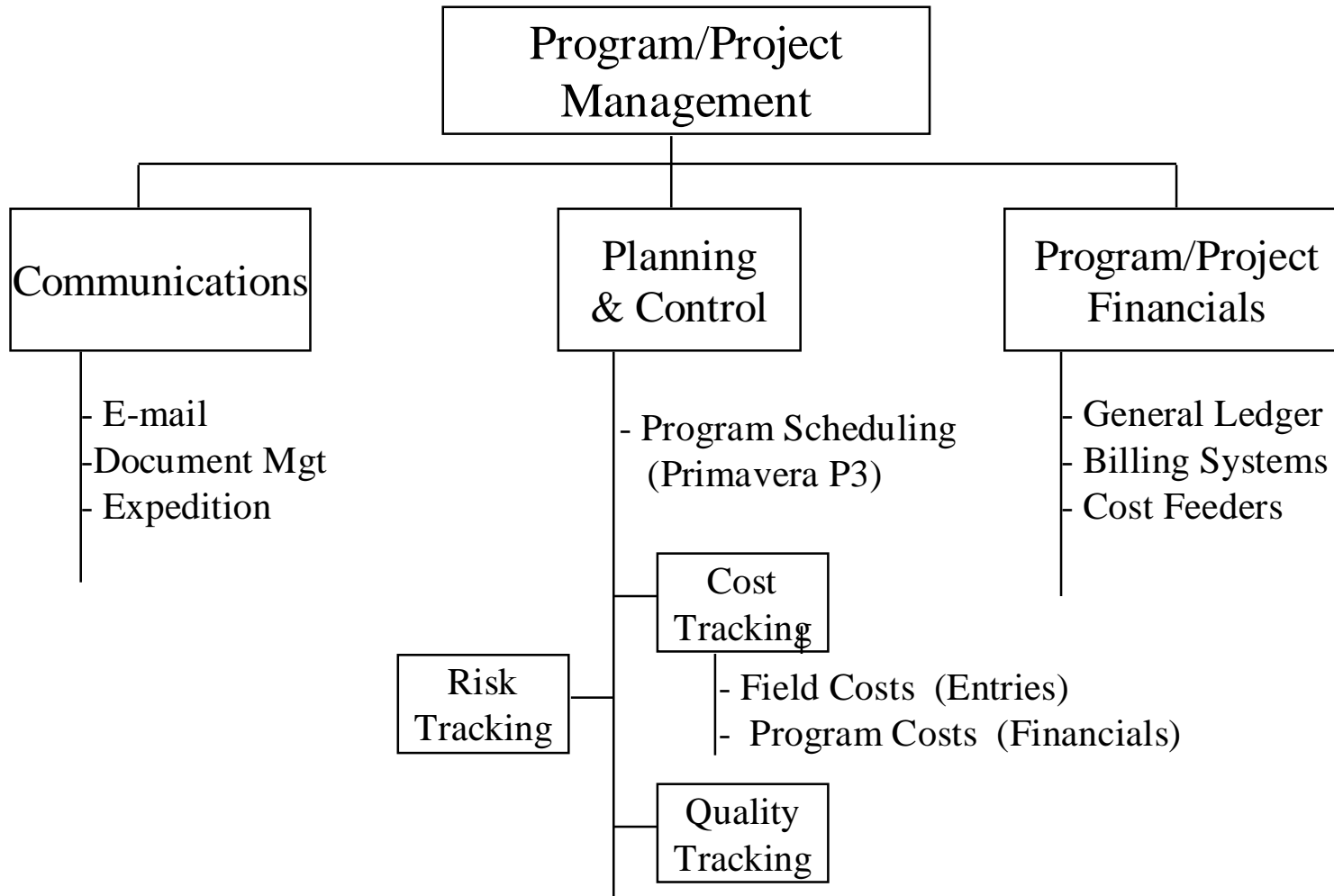
5.a Processes

1. Set of structured proven implementation instructions for carrying out projects.
2. Relies on a standard set of tools, Project Managers, Project Teams to determine the level of project management appropriate for a project and follow the necessary steps to ensure delivery on time, within budget and high quality.

Major objectives:

- Pursue a structured, consistent approach to managing projects for Omantel.
- Ensure Project Manager involvement from the opportunity analysis through the entire project.
- Plan the project comprehensively, and monitor and control project implementation.
- Ensure appropriate levels of communication with and involvement by other functional organizations.
- Document the project thoroughly, and ensure that appropriate documentation is retained for future use.
- Close out the project, ensuring an appropriate transition to Operations & Maintenance and establishment of follow-on responsibilities for Omantel.

Project Management Tools

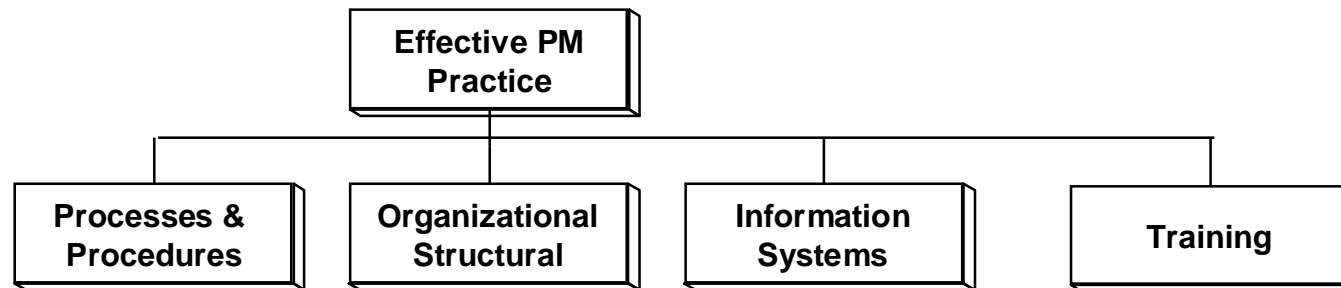


3.b Benefits of Project Management

1. Resolving problems more quickly
2. Not working in areas that are outside of the scope of the project
3. Resolving future risk before the problems occur
4. Communicating and managing expectations with end users, team members, contractors, and stakeholders more effectively
5. Building and delivering a higher quality product the first time.

3.c Effective Project Management System

- I Well-defined, effective processes and procedures
- I An organization that:
 - Understands the processes, and procedures
 - Understands its roles, responsibilities, and accountabilities
 - Has the skills to perform those roles effectively
 - Is supported by a program management “enhanced culture”
- I An information system to support planning and performance measurement
- I A well designed training courses that address all all aspects of project management tools and techniques.





4.a Omantel

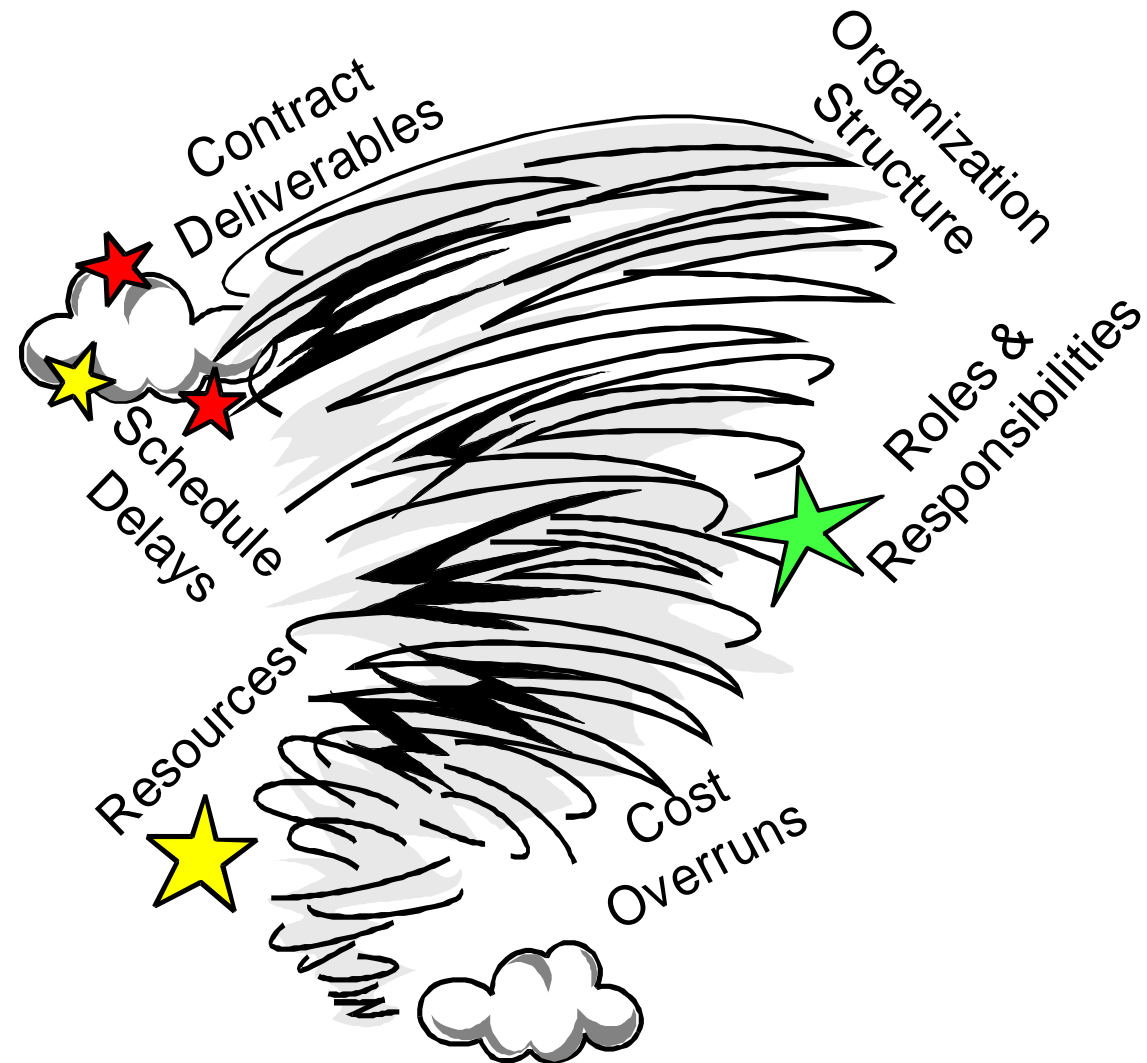
Existing Project Characteristics (AS IS)

- Poorly defined work Scope
- Roles, responsibilities and authorities are muddled
- Plans constantly change
- Initiation to Tendering Process
- No previous good planning
- Long Site Acquisition Process
- Missed scheduled targets
- Lack of coordination
- Cost overruns
- Management surprised by schedule and cost problems
- Funding is gone before objectives are met
- No stable baseline

5. Overview of Omantel's Project Processes

- No Specific standard and Repetitive Processes are in place.
- Missing crucial planning process, hence lack of clear scope.
- Projects are managed individually within one functional unit (Pooled Processes)
- Plans constantly change without real impact assessment
- Initiation to Tendering/Bidding Process is long

Overview of Omantel's Project Processes



5.a Project Management Mistakes

- Too much emphasis on IT
- Failure to fully implement Processes and Procedures
- Not enough & Inappropriate investment in training and education
- Unrealistic expectations
- Under and Over Estimation and Expectation
- Treat PM implementation as a “technical” project
- Lack of support
- No commitment to change
- Failure to get the functional participation and “buy-in”
- One man show project (no team work)

5.b Potential Benefits of Enterprise Project Management System

- Improved management of project milestones & Expectations
- More realistic up-front planning & scheduling
- More efficient use of staff and other resources
- Improved Long Processes
- Tackle Issues on time & deal with it
- Manage by knowledge not but surprises
- Better control of changes to scope, schedule, or budgets
- Early warning of cost and schedule problems
- Better coordination across functional departments
- Better communication among project team members
- More confidence in project status and control
- Clear roles and responsibilities
- Higher level of visibility for all management levels

6. Project Management Maturity Levels

Level 1: Initial Process

No Formal, consistent process to execute a project

Level 2: Structured Process and Standards

Consistent, basic approach to project execution is adopted

Level 3: Organizational Standards and Institutional Process

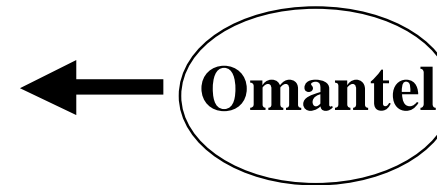
Consistent, comprehensive approach to project execution

Level 4: Managed Process

Multiple projects are integrated into the organization's business planning process.

Level 5: Optimizing Process

Project-centered organization with an established approach to continuous process improvement of project management.



Maturity Key Indicators

Project Management Office

Facilitate the improvement in project management maturity being the focal point for consistent application of processes and methodologies

Standard Operating Procedures

The application of the systematic structured processes and procedures which makes managing project consistent in the approach with different deliverable results.

Project Management Oversight

The amount of project management oversight and involvement that organization members have in the project management. No Management interest, then it is unlikely that improvement will occur

Continuous Professional Development

The continued refinement and renewal of the odd mixture of technical skills, management skills, and leadership skills.

Project Management Information System

The availability of the project centralized databases and the implementation of the project management tools for.

7. Proposed Project Life Cycle

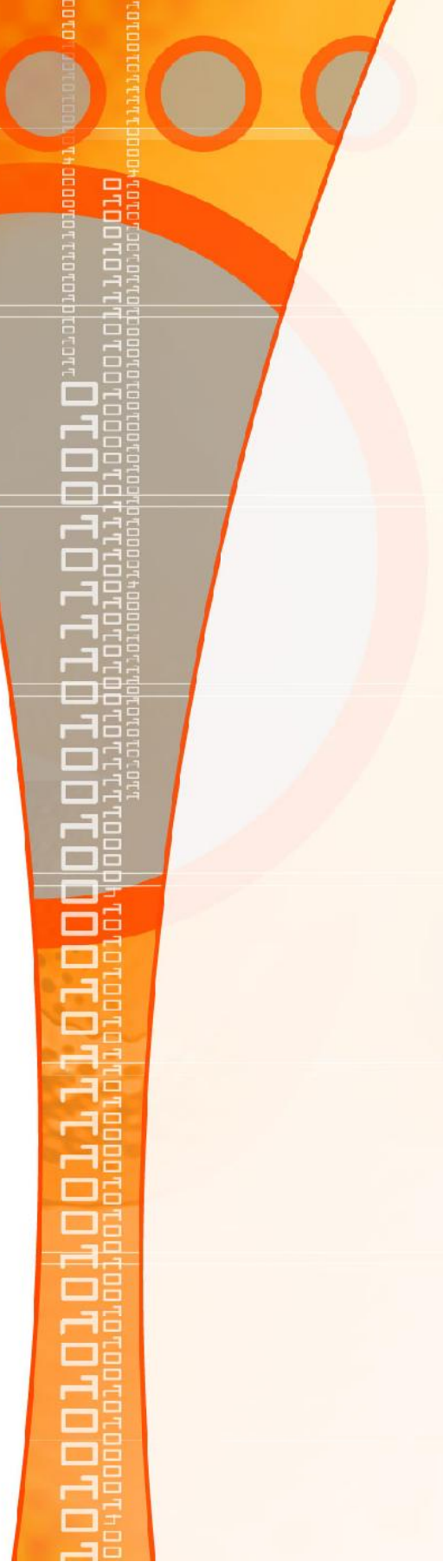
Phases	Processes
Strategic Alignment	Project Activities
Project Initiation	Project Activities
Design Development	Project Activities
Tendering	Project Activities
Executing & Controlling	Project Management
Close Out	Project Management
Internal Review	Project Management
Defects and Liabilities	Project Activities

7. Conclusion

1. Good project management requires an upfront investment of time and effort.
2. Omantel organization should be committed project management concept.
3. Need to Know How and Walk the Talk.
4. Project management is not about tools. It is a living dynamic daily structured practice
5. Project management is not a burden with more tools, forms, templates and procedures. It is about knowledge, professional practice, systematic successful procedures and it is all around successful results.
6. Project Management enables better control and should not be feared as a supervision from other team members.
7. Roles, Responsibilities, Authority and Delegation can be very effectively practiced in the project management community.
8. Omantel is progressing toward better project management and its performance can be measured by the Project Management Maturity Matrix.

'CONSTRUCTIVE' FEEDBACK

IT IS, QUITE LITERALLY, AN ART!



GIVING CONSTRUCTIVE FEEDBACK

Performance feedback can be given in 2 ways:

- 1. Constructive Feedback*
- 2. Praise & Criticism*

Do not fall into the trap of giving praise & criticism on employee performance!

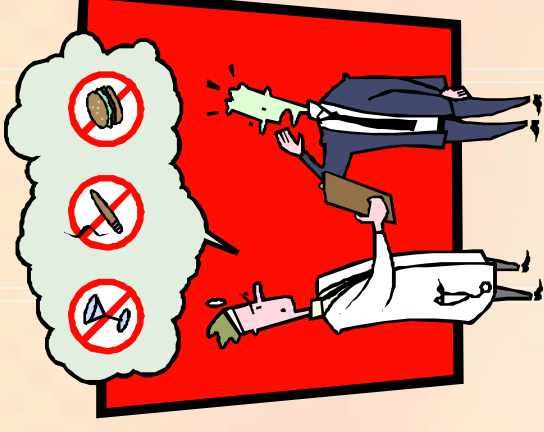
GIVING CONSTRUCTIVE FEEDBACK...

Constructive feedback is...

- *Information specific*
- *Issue focused*
- *Based on observations*

... and is of two types:

1. *Positive Feedback – effort well done!*
2. *Negative Feedback – effort needs improvement!*



GIVING CONSTRUCTIVE FEEDBACK...

Praise & Criticism are personal judgments about a performance effort/outcome



praise: favourable judgement

criticism: unfavourable judgement



GIVING CONSTRUCTIVE FEEDBACK...

Guidelines:

1. *Content*
2. *Manner*
3. *Timing*
4. *Frequency*



GIVING CONSTRUCTIVE FEEDBACK...

1. *Content* – What you say in the *constructive feedback*

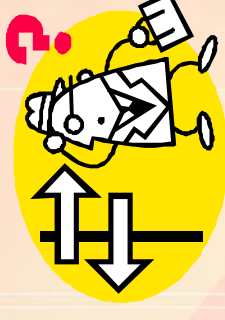
- In your *first sentence*, IDENTIFY THE TOPIC that the feedback will be about
- Provide SPECIFICS of what occurred



GIVING CONSTRUCTIVE FEEDBACK...

2. Manner – How you say or give the constructive feedback

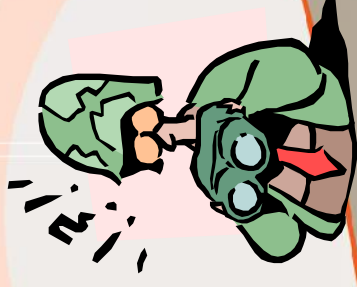
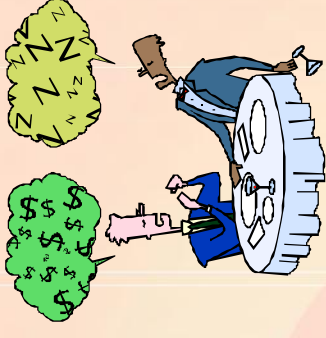
- Be direct when delivering your message
- Avoid “need to” phrases which send implied messages that something did not go well
- Be sincere & avoid giving mixed messages
- In positive feedback situations, express appreciation



GIVING CONSTRUCTIVE FEEDBACK...

2. Manner - ...continued...

- *In negative feedback situations, express concern*
- *Give feedback person-to-person, not through messengers of technology*
- *State observations, not interpretations*



GIVING CONSTRUCTIVE FEEDBACK...

3. *Timing – answer the question:*
When do you give an employee feedback for a performance effort worth acknowledging?

ASAP! (As Soon As Possible!)



When giving negative feedback, you may want to apply a different timeline: ASAR (As Soon As Ready/Reasonable – i.e. when you are ready)

GIVING CONSTRUCTIVE FEEDBACK...

4. *Frequency – answer the question:
How often should your employees receive
constructive feedback on their performance?*

*This guideline is the most important one
because it makes all other guidelines work!*



Be sure to keep notes on the performance feedback that you give. It helps you track what's happening in peoples performance rather than relying on your memory.

GIVING CONSTRUCTIVE FEEDBACK...



How to deliver Constructive Feedback in an
intellectually sensitive manner?!!

WARNING! Difficulty level: **HARD**



GIVING CONSTRUCTIVE FEEDBACK...

Here's how to get it done:

- 1. Understand that constructive feedback is not criticism*
- 2. Before you give any feedback, revisit your mental models*
- 3. What is it that you really need or want from this individual and why?*
- 4. Check your attitude*
- 5. Check your information*
- 6. Follow the THANCS™ Model for delivering constructive feedback*

GIVING CONSTRUCTIVE FEEDBACK...

The THANCS™ model

- Timely
- Helpful
- Appropriate
- Never labelling, demoralizing, accusing
- Collaborative & Culturally sensitive
- Specific



GIVING CONSTRUCTIVE FEEDBACK...

Q: Why do I need to give constructive feedback?

A: Constructive feedback provided skilfully opens the way to a relationship that is built on trust, honesty, and genuine concern, leading to personal learning & growth.

It supports individuals & departments by:

- *Supporting ongoing learning & performance improvement*
- *Supporting staff in personal & professional development*
- *Increasing self awareness*
- *Encouraging positive workplace environment*

GIVING CONSTRUCTIVE FEEDBACK...

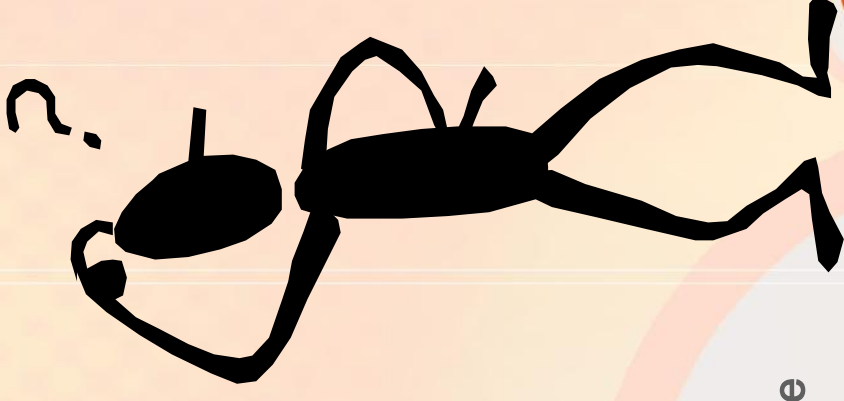


ANY QUESTIONS?

Yeah! Just one...

So what IS constructive feedback???

It is a communication that gives a staff member (even a friend) information about their performance with the aim of developing and/or enhancing that performance. The information provided is based on facts and must be a tangible thing that the staff (or friend) can do something about.



Thank you...



Merci



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Corporate Development Division



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Köszönettel



Project Communications Management

12th April 2005

**By:
Program Office Unit
Corporate Development Division
Omantel**

Project Management Dynamics – Project Communications Management

- 
- 1. Introduction**
 - 2. General Communication Skills**
 - 3. Project Management Communication Processes**
 - 1. Communication Planning**
 - 2. Information Distribution**
 - 3. Performance Reporting**
 - 4. Administrative Closure**

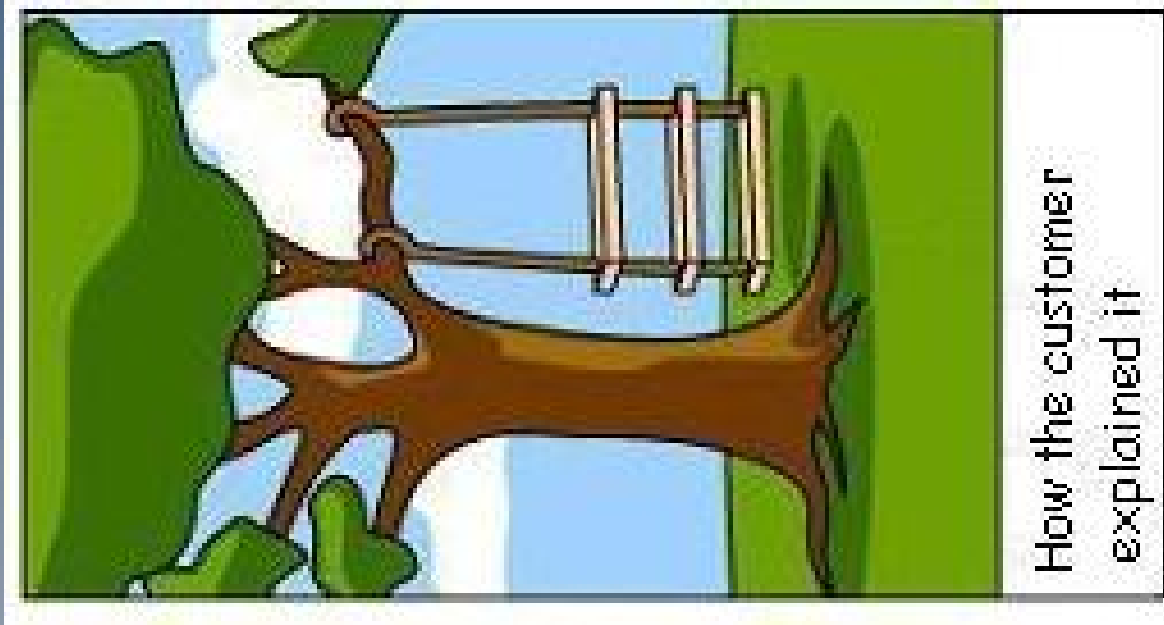
1. Introduction

Project Success

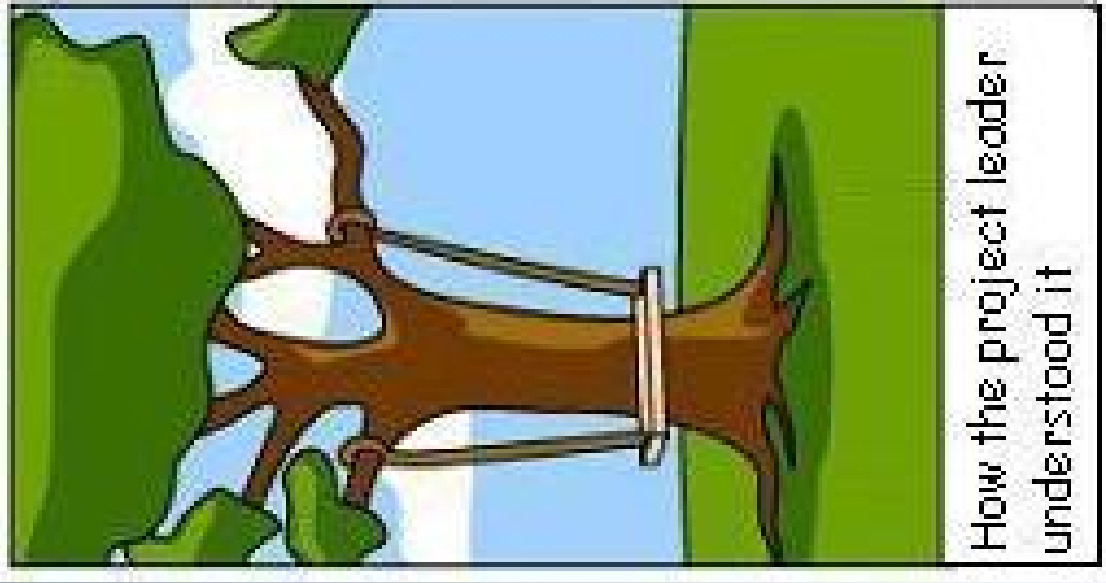
- **Deliver what the customer needs,**
 - **When the customer needs it**
 - **At a cost a customer can afford.**
- **Deliver what the customer wants,**
 - **When the customer wants it**
 - **At a cost that a customer is willing to pay.**

Project Success

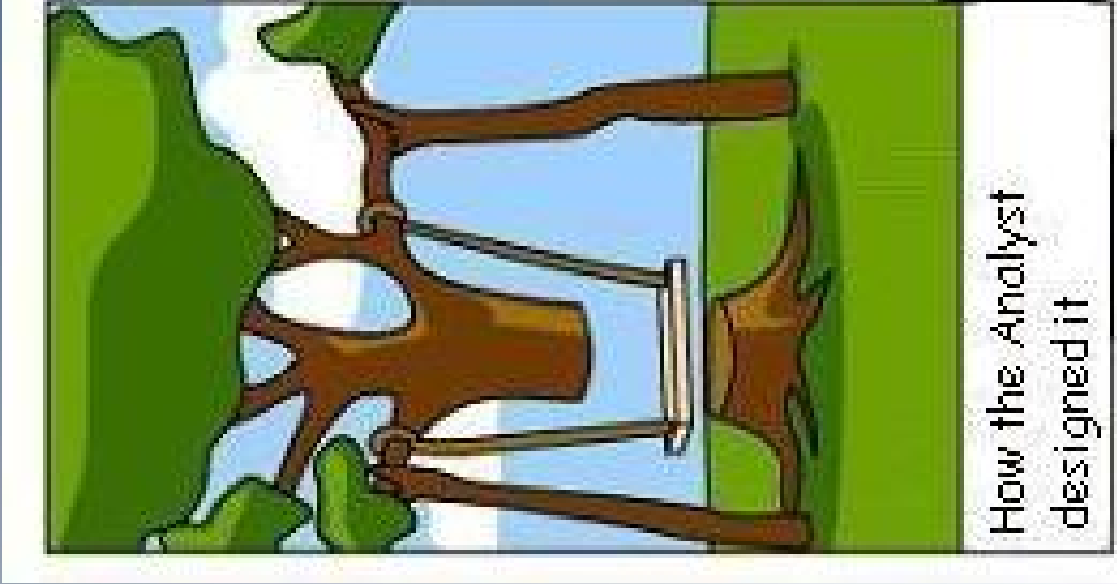
- **Good Communication contributes to the **SUCCESS** of a project!**
- **Poor Communication contributes to the **FAILURE** of a project!**



How the customer
explained it



How the project leader understood it

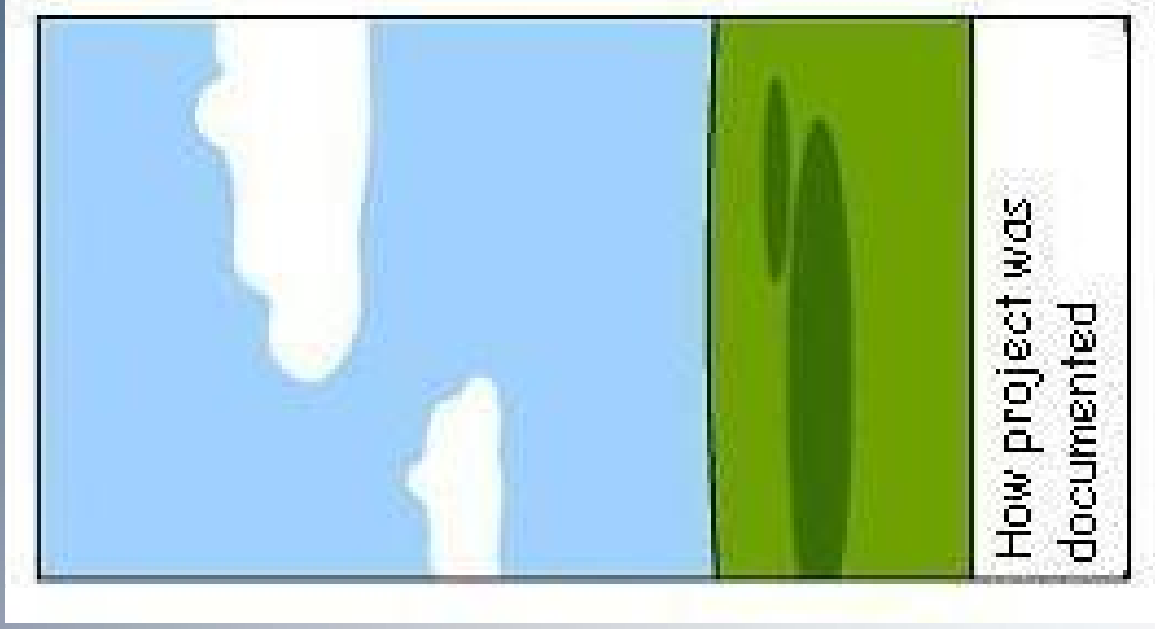




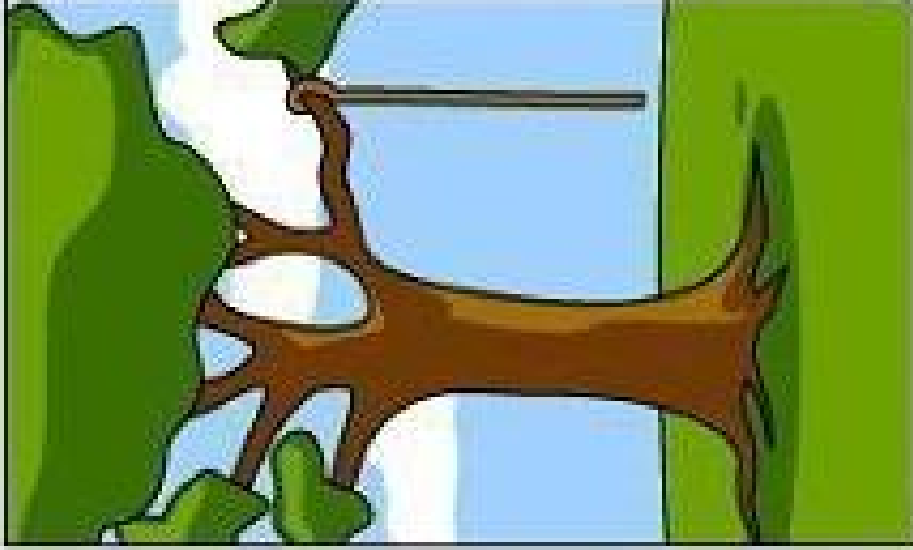
How the Programmer
wrote it



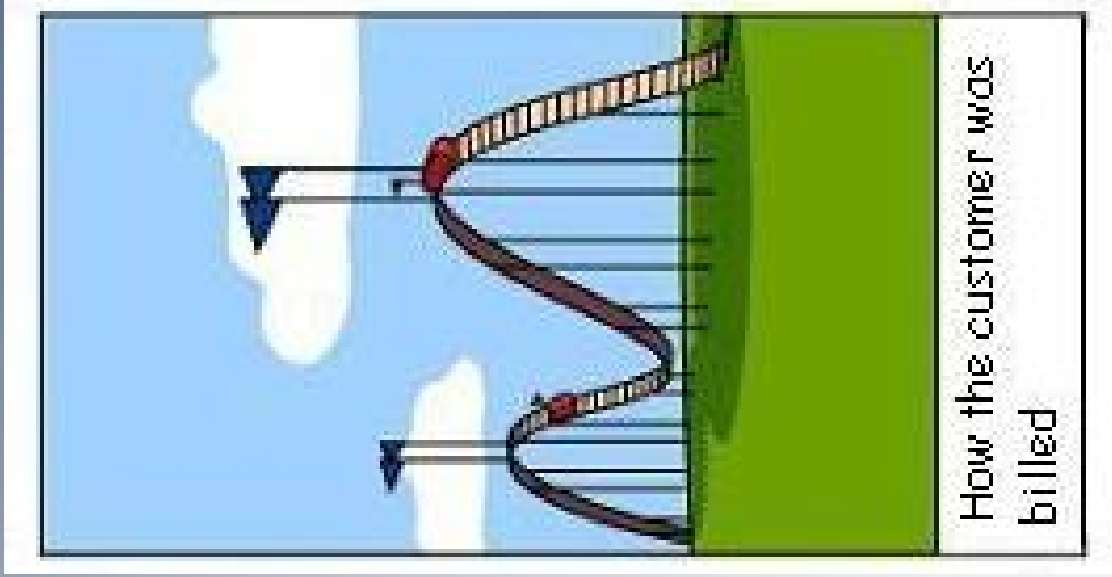
How the Business
Consultant described it



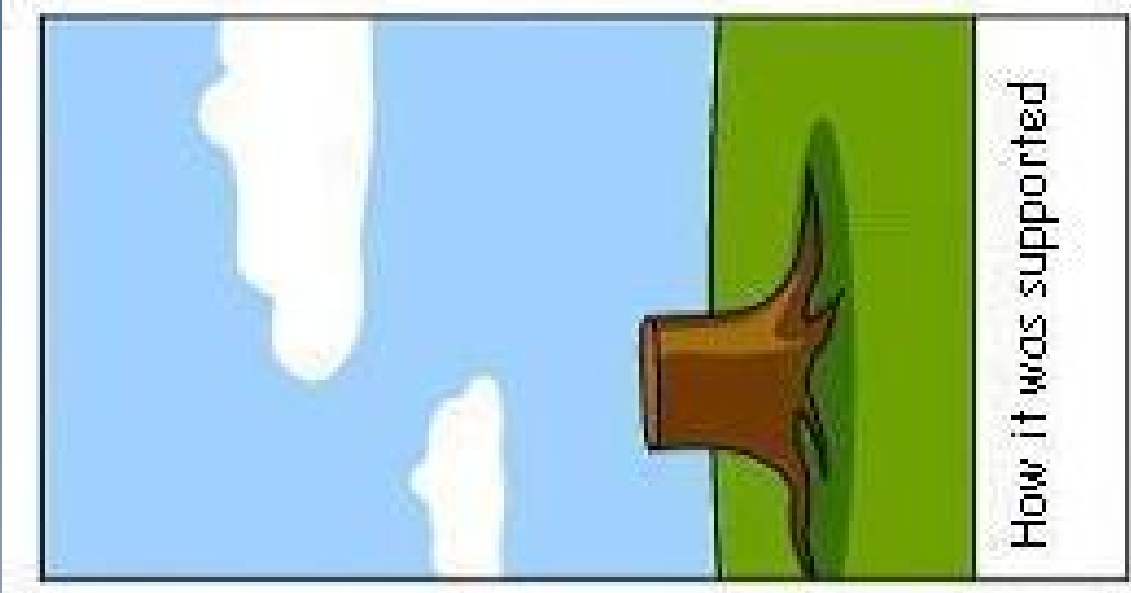
How project was
documented



What operations
installed



How the customer was
billed

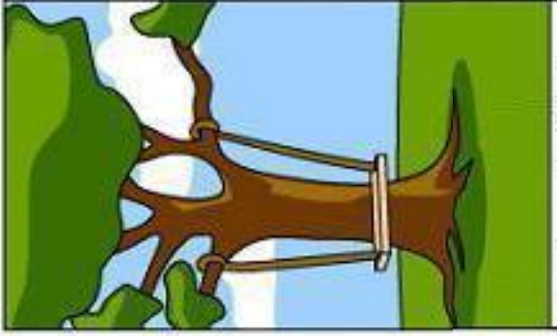




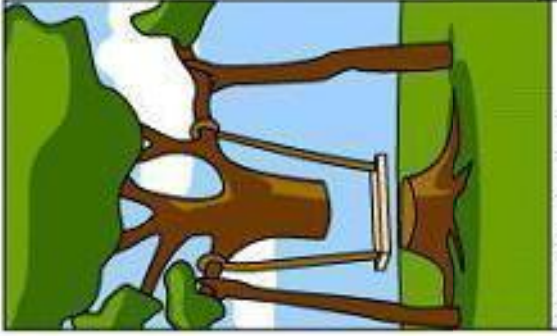
What the customer
really needed



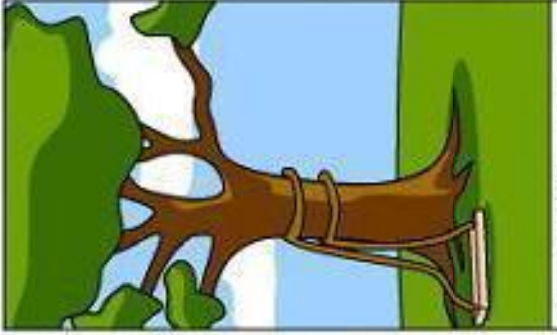
How the customer explained it



How the project leader understood it



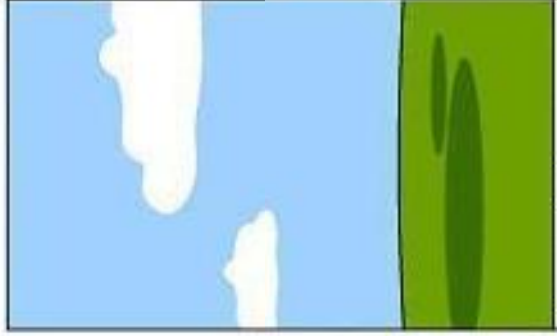
How the Analyst designed it



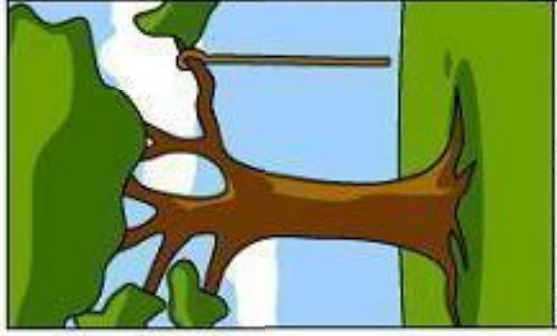
How the Programmer wrote it



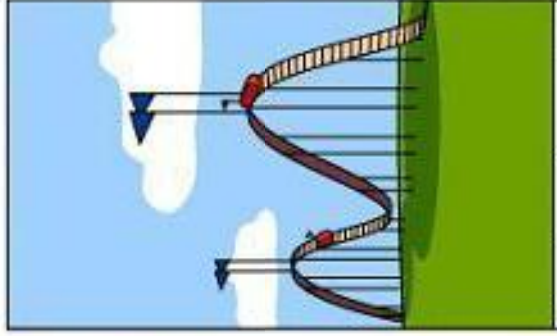
How the Business Consultant described it



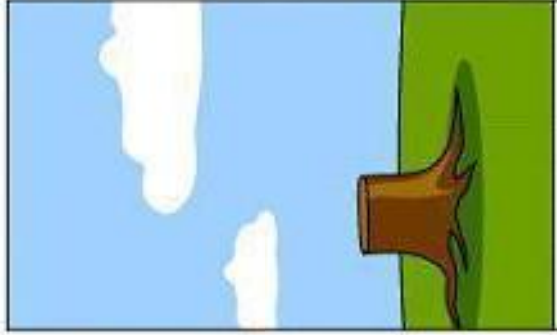
How project was documented



What operations installed



How the customer was billed



How it was supported



What the customer really needed

Project Success

YOU CHOOSE!

Project Management Dynamics – Project Communications Management

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**2. General
Communication Skills**

2. General Communication Skills

Communicating involves the exchange of information.

Sender: Responsible for making the information clear, unambiguous and complete



Message

Receiver: Responsible for making sure that the information is received in its entirety and understood correctly.

70 – 90 % of Project Manager's time is spend communicating

2. General Communications Skills

-Communication Dimensions-

- **Oral & Written**
 - **Listening & Speaking**
45% of PM time is spent on “LISTENING”,
30% on “SPEAKING”

Internal (within the organization) & **external** (to the customer, the media, the public, etc)

- **Formal** (reports briefings, etc) & **informal** (memos, ad hoc conversations, etc).

Vertical (up and down the organization) & **horizontal** (with peers and partner organization).

2. General Communication Skills

-Communications Styles-

- **Style 1: Action-value orientation**
Like action: doing, achieving, getting things done, improving & solving problems.
 - **Communication approach: focus on result & be as brief as possible.**
- **Style 2: Process-value orientation**
Like facts: organizing, structuring, setting up strategies & tactics.
 - **Communication approach: Be precise, state the facts, organize your presentations in logical order.**

2. General Communication Skills

-Communication Styles-

- **Style 3: People-value orientation**
Like to: focus on social processes, interactions, communication, teamwork & motivation.
 - **Communication approach: Allow time for small talk, stress relationship with people concerned, show how idea worked well in the past, indicate support from well-respected people.**
- **Style 4: Idea-value orientation**
 - Like: concepts, theories, exchange of ideas, innovation, creativity & novelty.
 - **Communication approach: Allow enough time for discussion, stress the uniqueness of the idea or topic at hand, do not get impatient when the person goes off on tangents, & emphasize the future value.**

2. General Communications Skills

It is imperative that a

Project Manager

communicates

effectively to

ALL levels

through ALL media



Project Management Dynamics – Project Communications Management

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3. Project Communications Management Processes

Nine Project Management Knowledge Areas

1. Project Integration Management
2. Project Scope Management
3. Project Time Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resources Management
7. Project **Communications** Management
8. Project Risk Management
9. Project Procurement Management



Project Communications Management

The general management skill of communicating is related to, and part of, **Project Communications Management.**



Project Communications Management

- Includes the **processes** required to ensure timely and appropriate **Generation, Collection, Dissemination, Storage & ultimate disposition** of project information.

Project Communications Management

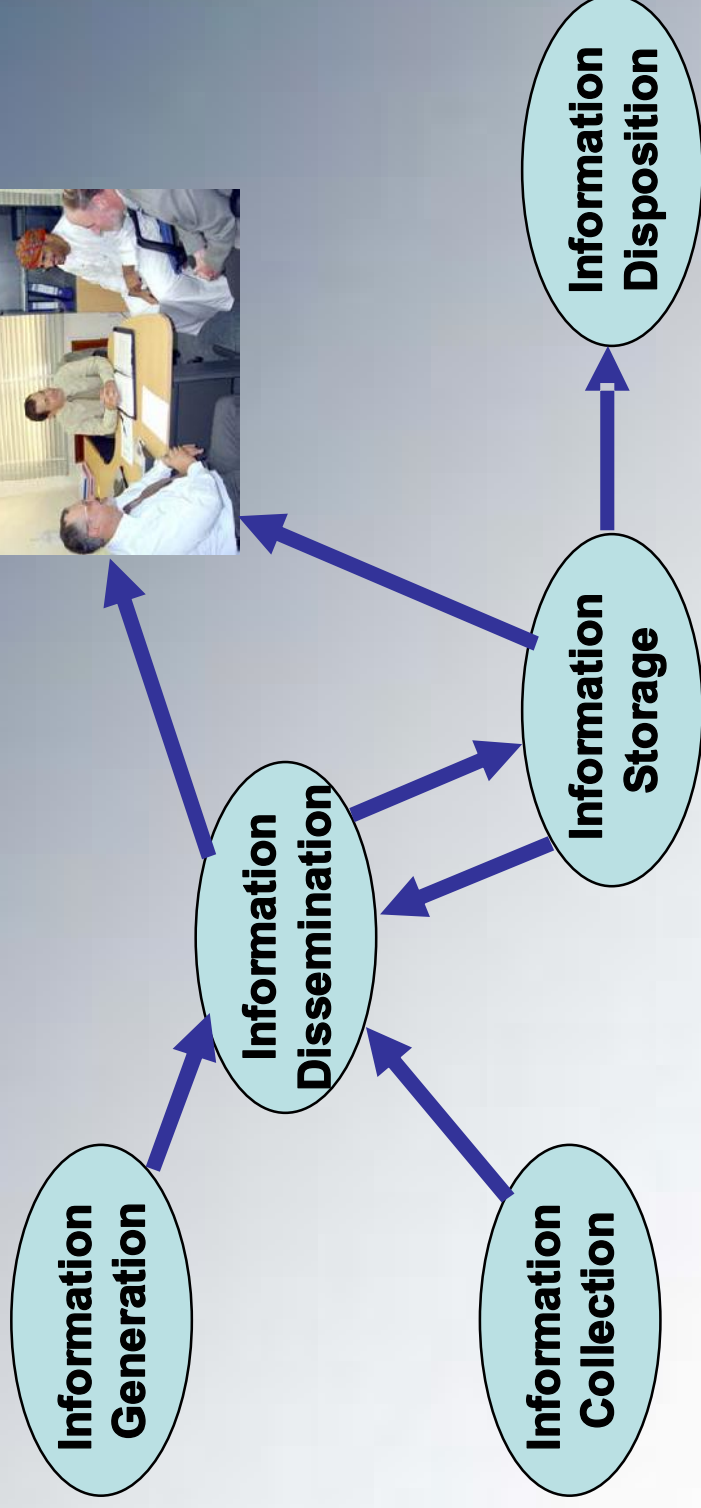
- Provides the **critical links** among **People, Ideas & Information** that are necessary for success.

Project Communications Management

- **Everyone involved in the project must:**
 - Be prepared to **send and receive** communications
 - **Understand** how the **communications**, in which they are involved as individuals, affect the project as a whole.

3. Communication Management Activities

Stakeholders





Project Management Dynamics – Project Communications Management

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3.1 Communications Planning

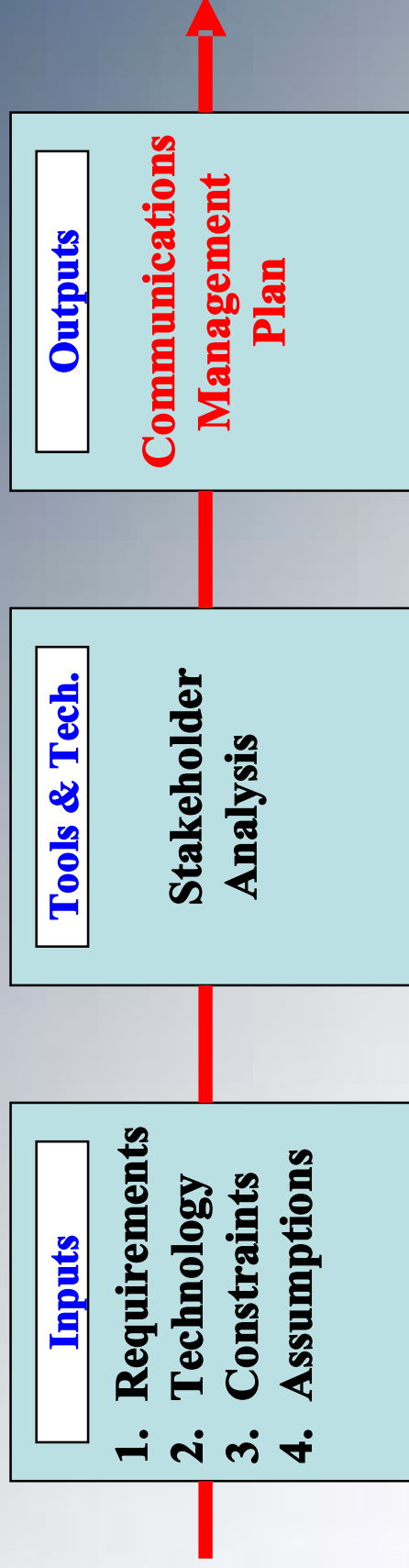
3.1 Communication Planning

Determining the information and communications needs for the stakeholders;

- Who need what information
- When they will need it and
- How it will be given to them



3.1 Communications Planning



Project Management Dynamics – Project Communications Management

1. **Introduction**
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 1. **Communications Planning**
 2. **Information Distribution**
 3. **Performance Reporting**
 4. **Administrative Closure**

3.2 Information Distribution

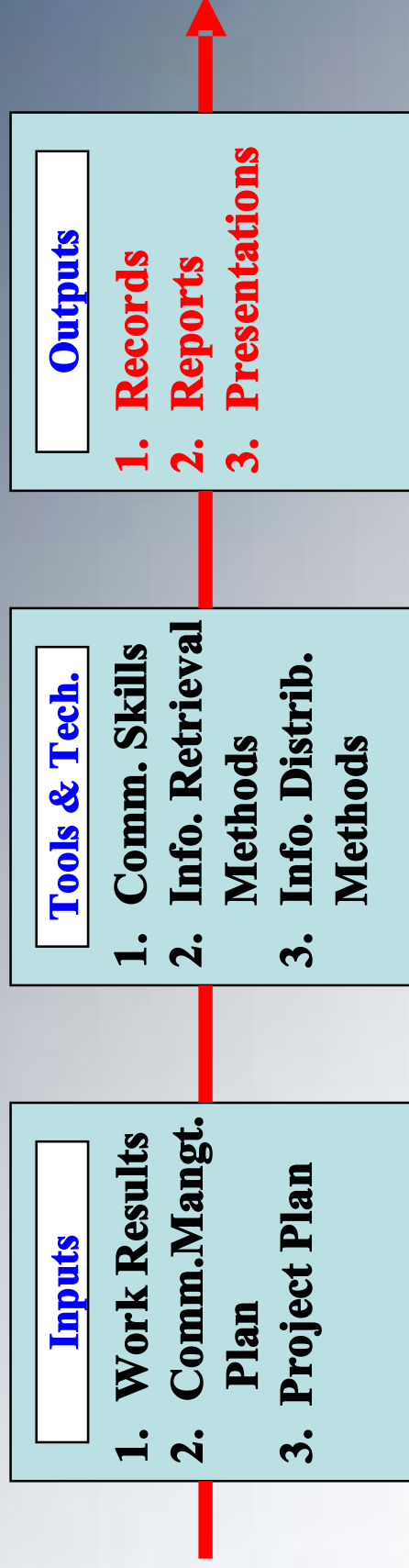
3.2 Information Distribution

Information distribution involves making **needed information available to project stakeholders in a timely manner**. It includes:

- **Implementing the communications management plan**
- **Responding to unexpected requests for information.**



3.2 Information Distribution





Project Management Dynamics – Project Communications Management

3.3 Performance Reporting

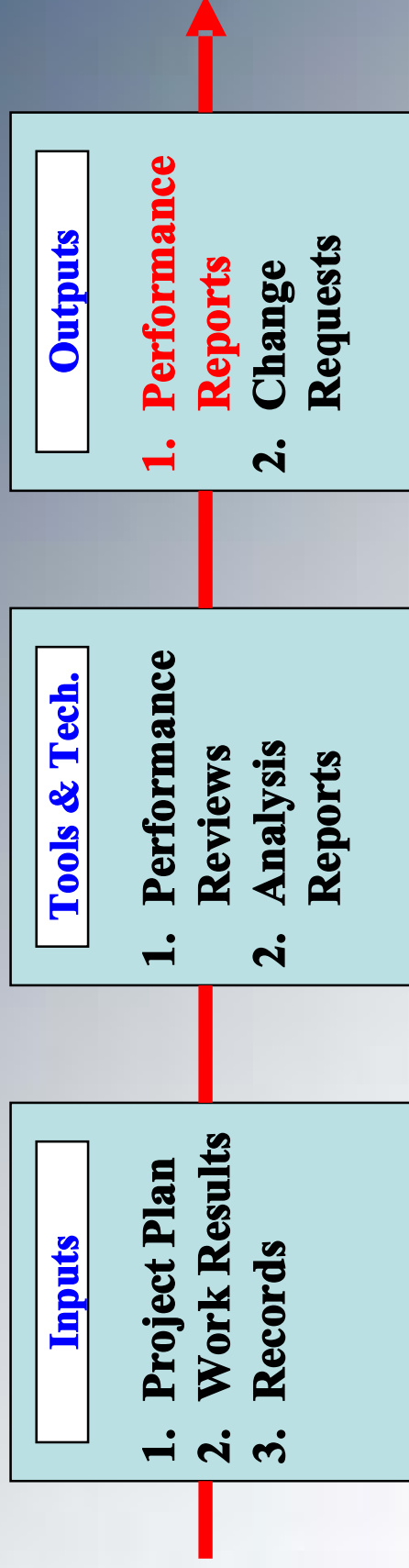
- 1. Introduction**
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- 3. Project Management Communication Processes**

3.3 Performance Reporting

Performance reporting involves **collecting** and **disseminating** performance information to provide **stakeholders** with information about **how resources** are being used to achieve **project objectives**.



3.3 Performance Reporting





**Project Management Dynamics –
Project Communications Management**

**3.4
Administrative Closure**

3.4 Administrative Closure

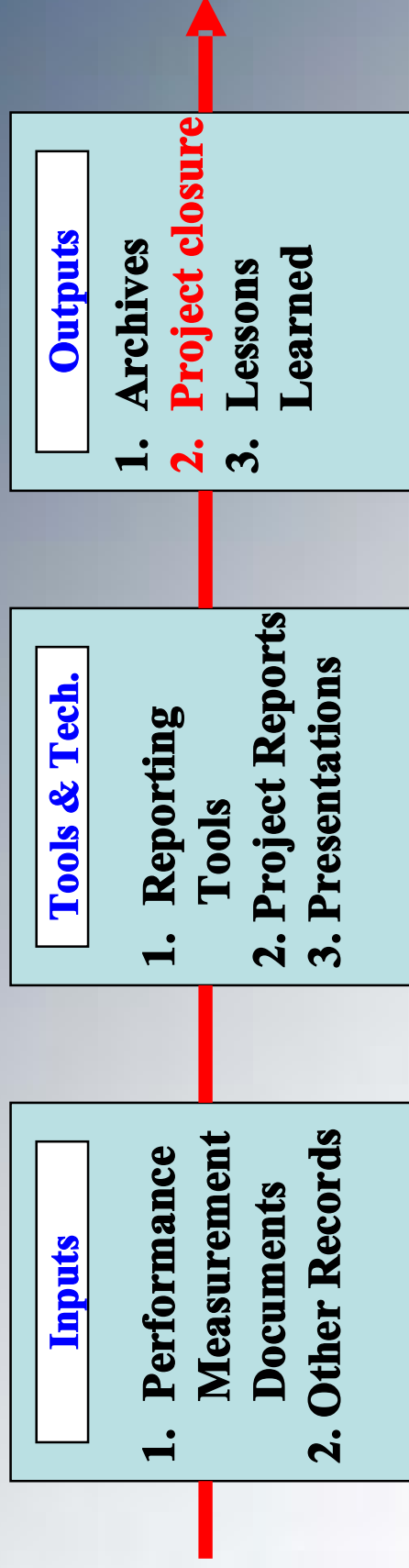
Administrative closure: consist of documenting project results to formalize acceptance of the product of the project by the sponsor or customer.

It includes:

- **Collecting project records;**
- **Ensuring that they reflect final specifications; analyzing project success, effectiveness**
- **and lessons learned;**
- **Archiving information for future use.**



3.4 Administrative Closure



Outputs from Administrative Closure

- 1. Project Archives:**
A complete set of **index records** should be prepared for archiving by the appropriate parties.
- 2. Project Closure:**
Confirmation that the project has met all **customer requirements** for the product of the project
- 3. Lessons Learned:**
The **causes of variances**
Reasoning behind the corrective action chosen should be documented in the project database to become the basis for knowledge management.

FINALLY

CELEBRATE!!!!

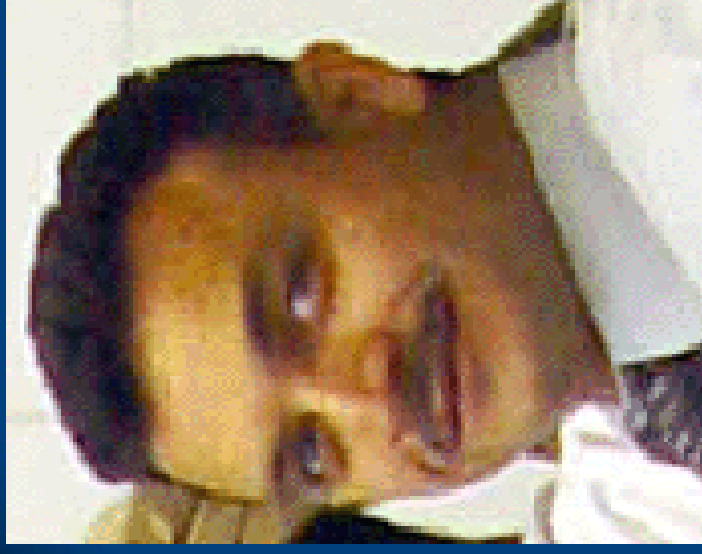
Key Messages

- **Effective communication is vital to project success.**
- **On large projects, more time may be spent communicating than on executing tasks**
- **Communication is the exchange of information and consist the (Sender, Receiver, Medium – Message).**
- **70-90% of Project Managers time is spend communicating.**

Key Messages (Continued)

- **Use Active Listening** to better understand the facts, feelings & ideas presented.
- **Asking good questions** is crucial to active listening.
- **Create Confidence** in your listeners.
- **Work to promote a free & open exchange of information.**
- **Prepare a Project Communication Plan.**

Any Questions?



Catch Me if you Can!!!!!!

**Project Management Dynamics –
Project Communications Management**

**Thank You for your
participation.**

**With Best Regards,
Program Office Unit Team**

الشركة العمانية للاتصالات
Oman Telecommunications Company
مذكرة داخلية
INTERNAL COMMUNICATION


From : Director, Project Management Office : من
To : The Executive President : إلى
CC.: Executive Vice President : نسخة إلى
Ref.: Omantel/PMO/ADMIN/ 87 /2003 : الإشارة:
Date : Wednesday, 19 February 2003 : التاريخ
Subject : Proposal for Project Mangers' Career Development Path : الموضوع

After Compliments,

Reference the above subject, please find attached the *Competency Framework for Project Managers* and how it relates to the Project Management Maturity and Capability in the organization. Also attached the *Career and Profession Development Path*.

We would also like to inform you that the PMO is in contact with some training institutes who can deliver the required courses for achieving the above target, which you will be updated with as soon as it is materialized. This is for your kind review and approval.

Best Regards,


Rashid Bin Ali Al-Batushi
Director, Project Management Office

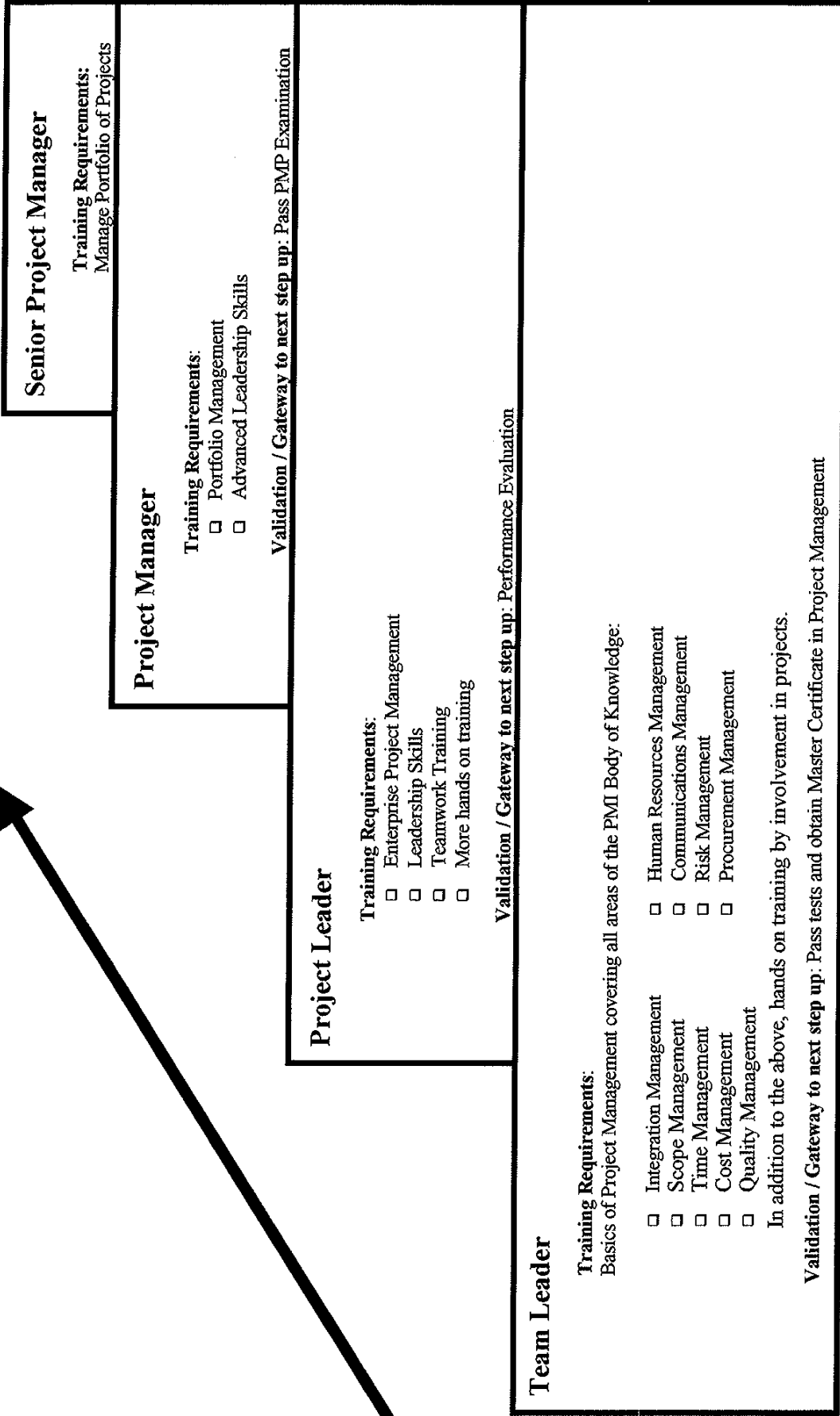
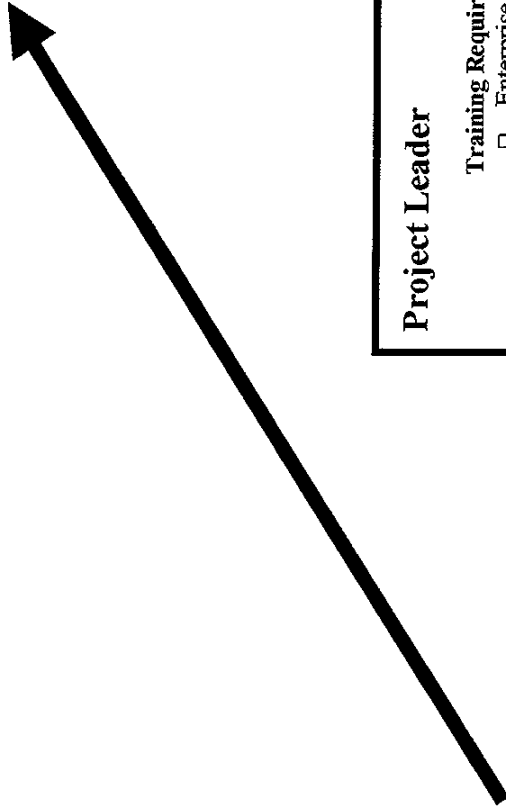


Approved.
21/02/03

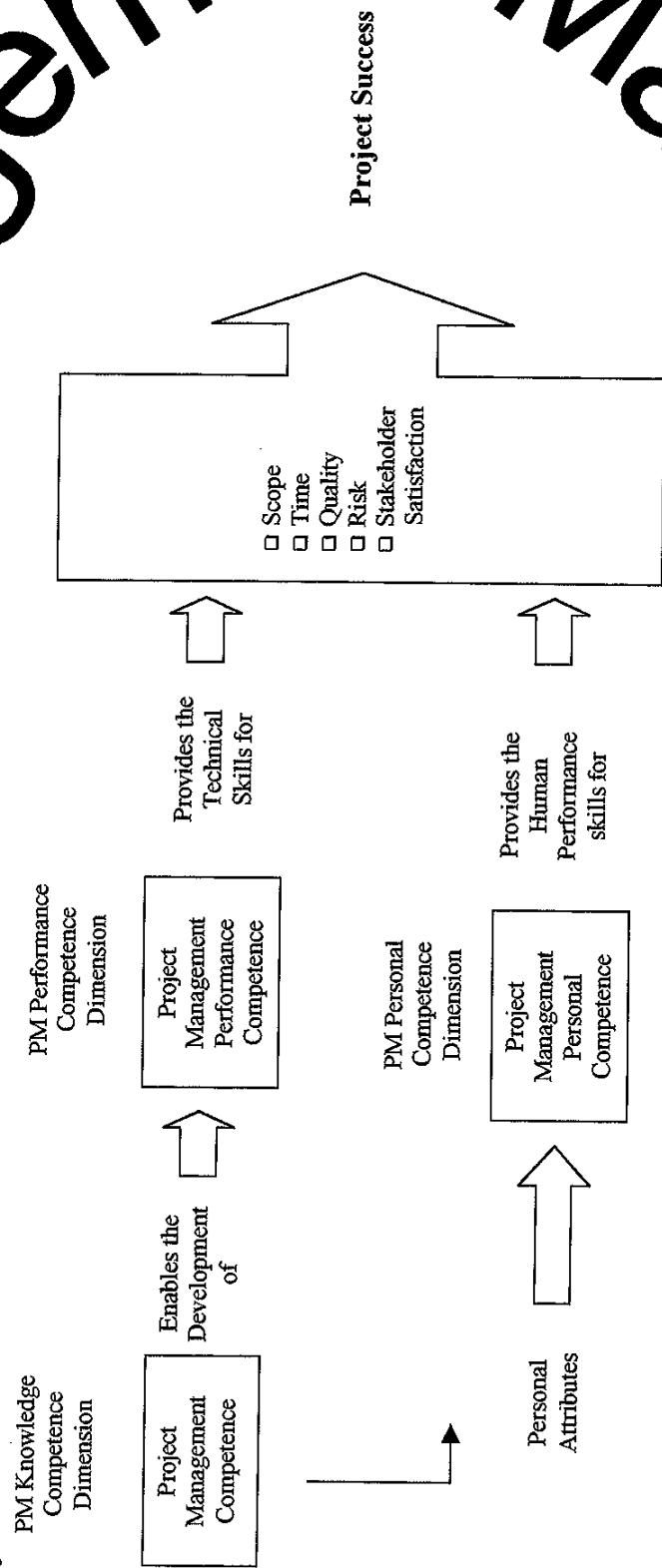
مستأففة
follow-up PLS.
21/02/03

Suggested Project Managers' Career & Professional Development Path

Newly Hired or Existing Staff



Organization Maturity and Capability



Management Concepts

and

Regis University

Ahmed Saleh Al-Humaidi

Certify that

*Has successfully completed the
Project Management Curriculum and is awarded a*

Masters Certificate in Project Management



William J. Husson

William J. Husson, Ph.D.



**MANAGEMENT
CONCEPTS**

Thomas F. D'Angar III

Management Concepts

and

Regis University

Certify that

Ahmed Mohd Al-Nasri

*Has successfully completed the
Project Management Curriculum and is awarded a*

Masters Certificate in Project Management



William F. Husson

William F. Husson Ph.D.



**MANAGEMENT
CONCEPTS**

Thomas F. D'Angelo III

Management Concepts

and

Regis University

Certify that
Asmahan Ahmed Al-Mazwi

*Has successfully completed the
Project Management Curriculum and is awarded a*

Masters Certificate in Project Management



William J. Husson

*William J. Husson, Ph. D.
Vice President and Academic Dean
School for Professional Studies
Regis University*



January 27, 2005

Completion Date



Thomas J. Doolan III

*Thomas J. Doolan III
President
Management Concepts*

Management Concepts

and

Regis University

Certify that
Fida Abdul Rasheed Al-Balushi

Has successfully completed the
Project Management Curriculum and is awarded a

Masters Certificate in Project Management

REGIS
UNIVERSITY
School for Professional Studies

William J. Husson

William J. Husson, Ph.D.
Vice President and Academic Dean
School for Professional Studies
Regis University



January 27, 2005

MANAGEMENT
CONCEPTS

Thomas F. Pungan III

Thomas F. Pungan III
President
Management Concepts

Completion Date

Oman Mobile
Telecommunications
Company (L.L.C)



الشركة العمانية
للاتصالات المتكاملة (ش.م.م)

No : OMT/MP&BD/NPO94/12004

Date: 15/5/2004

Corr: 2513/1425H

الرقم :

التاريخ :

الموافق :

M/S. SIEMENS AG,
P.O. BOX 1206, Seeb
POSTAL CODE 111
SULTANATE OF OMAN

PROVISIONAL ACCEPTANCE CERTIFICATE

Title of Project	Design, Supply, Installation, Integration, Testing and Commissioning of Equipment for GSM Expansion 2002 in the Sultanate of Oman.				
Contract Number	2001 129				
Finance Reference No.	PF/968				
P.A.C. Number	M 130/04				
System	Mobile Communications				
Site / Link Name	Various - Details attached				
Effective Date of P.A.C.	30.12.2003				
Value					
Item	Discipline	Material Value in R.O.		Labour Value in R.O.	
		FSOW	As-Built	FSOW	As-Built
1	Mobile Communication	5,383,755.566	5,316,512.543	1,878,022.469	1,854,543.125

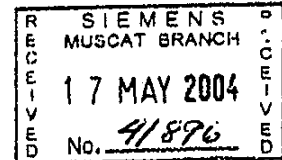
Consequent upon successful completion and testing of all the above-mentioned works pertaining to this PAC, under the referred contract, Omantel is pleased to inform you that the said works are hereby provisionally accepted. Siemens should clear all deficiencies under this contract before submitting for FAC.

Best Regards,

Bernhard Van Der Merwe
Network Division Head

CC : GMFU

MTQ/ASH/SSS



ORIG SHARIFA
CO. DR. NISH
NAME
PUBLER
VISA
M/E

Tel: +968 632856 - Fax: +968 684055/ C.R. No. :1/00076/4

Cable: OMANTEL Muscat-P.O.Box 789 Ruwi, Postal Code 112

هاتف: +968 632856 - فاكس: +968 684055 / ص.ت.: 1/00076/4

برقيا: عمان تل مسقط - ص.ب رقم: 789 - روي - الرمز البريدي 112

Oman Mobile
Telecommunications
Company (L.L.C)

الشركة العمانية
للاتصالات المتنقلة (ش.م.م)

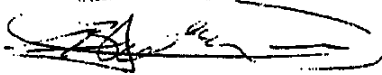
No : OMT/MP&BD/NPO/940/2004 : الرقم
Date: 15/5/2004 : التاريخ
Corr: 25/3/14254 : الموافق

M/S. SIEMENS AG,
P.O. BOX 1206, Seeb
POSTAL CODE 111
SULTANATE OF OMAN

PROVISIONAL ACCEPTANCE CERTIFICATE					
Title of Project		Design, Supply, Installation, Integration, Testing and Commissioning of Equipment for GSM Expansion 2002 in the Sultanate of Oman.			
Contract Number		VO 1 to 2001 129			
Finance Reference No.		PF/968A			
P.A.C. Number		M131/04			
System		Mobile Communications			
Site / Link Name		Various - Details attached			
Effective Date of P.A.C.		30.12.2003			
Value					
Item	Discipline	Material Value in R.O.		Labour Value in R.O.	
		FSOW	As-Built	FSOW	As-Built
1	Mobile Communication	1,189,555.799	1,055,839.330	483,028.877	444,079.393

Consequent upon successful completion and testing of all the above-mentioned works pertaining to this PAC, under the referred contract, Omantel is pleased to inform you that the said works are hereby provisionally accepted. Siemens should clear all deficiencies under this contract before submitting for FAC.

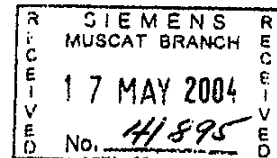
Best Regards,



Bernhard Van Der Merwe
Network Division Head

CC : GMFU

MTQ/ASH/SSS



ONG SAJCHA
ce. DAMASH
MARC
FUELLER
VISH
MIF

(1)

No : OMT/ND/PMS/49/2005

Date: 17/5/2005

Corr:

الرقم :

التاريخ :

الموافق :

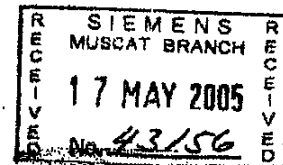
M/S. SIEMENS AG,
P.O. BOX 1206, Seeb
POSTAL CODE 111
SULTANATE OF OMAN

FINAL ACCEPTANCE CERTIFICATE	
Title of Project	Design, Supply, Installation, Integration, Testing and Commissioning of Equipment for GSM Expansion 2002 in the Sultanate of Oman.
Contract Number	2001 129
Finance Reference No.	PF/988
F.A.C. Number	M25/2005
System	Mobile Communications
Effective Date of F.A.C.	31.12.2004

Consequent upon successful completion and testing of all the above-mentioned works pertaining to this FAC, under the referred contract, Oman Mobile is pleased to inform you that the said works are hereby finally accepted.

Best Regards,


Bernhard Van Der ...
Network Division Head



ONE PLATE
ON HANDEL
M/F

CC : GMFU

SSS

(1)

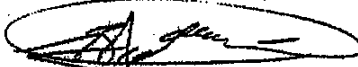
No : OMT/ND/PMS/ 48 /2005 : الرقم
Date: 17 / 5 / 2005 : التاريخ
Corr: : الموافق

M/S. SIEMENS AG,
P.O. BOX 1206, Seeb
POSTAL CODE 111
SULTANATE OF OMAN

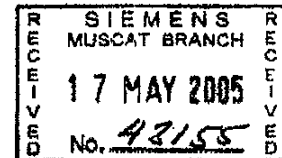
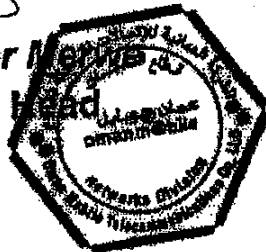
FINAL ACCEPTANCE CERTIFICATE	
Title of Project	Design, Supply, Installation, Integration, Testing and Commissioning of Equipment for GSM Expansion 2002 in the Sultanate of Oman.
Contract Number	VO 1 to 2001 129
Finance Reference No.	PF/988A
F.A.C. Number	M26/2005
System	Mobile Communications
Effective Date of F.A.C.	31.12.2004

Consequent upon successful completion and testing of all the above-mentioned works pertaining to this FAC, under the referred contract, Oman Mobile is pleased to inform you that the said works are hereby finally accepted.

Best Regards,



Bernhard Van Der Meer
Network Division Head



ORIG PLATE
cc HANSEL
M/F

CC : GMFU

SSS

No. OMTC/ND/PMS/ 804/ 2005

Date: 27th December, 2005.

M/s Motorola
C/o Tawoos Power & Telecommunications LLC
PO Box 1676, Ruwi
Sultanate of Oman

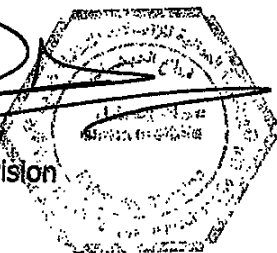
3

PROVISIONAL ACCEPTANCE CERTIFICATE					
TITLE OF THE CONTRACT		Supply and installation of equipments for Expansion of GSM Network in Batinah, Buraimi and Musandam Governorate in the Sultanate of Oman			
CONTRACT NUMBER		2001-138			
FINANCE REFERENCE		PF/969			
P.A.C NUMBER		M-158/2005			
SYSTEM		GSM Systems			
EFFECTIVE DATE OF PAC		29 th December, 2003			
		Materials		Installation	
S.No.	Site name	Contract value US\$	As built value US\$	Contract value US\$	As built value US\$
1.	As per details attached	14,005,439.00	13,669,358.89	5,869,939.00	5,585,208.86

Consequent upon successful completion of the works under the referred contract, Oman Mobile is pleased to inform that the above works are provisionally accepted effective from the date mentioned above.

Regards,


Sammy Al Ghassany
Head - Networks Division



Cc: Division Head, Finance, Omantel.
DPOU
Asset Management Section, Omantel.

 Osb/Am/rkp


03/1/06

No. OMTC/PMS/GSM/ FAC/ 117 /2006

Date: 28th February, 2006.

M/s Motorola
C/o Tawoos Power & Telecommunications LLC
PO Box: 1676, Ruwi
Postal Code 112
Sultanate of Oman

FINAL ACCEPTANCE CERTIFICATE	
TITLE OF THE CONTRACT	Supply and Installation of Equipments for Expansion of GSM Networks in Batinah, Buraimi and Musandam regions in the Sultanate of Oman.
Contract No.	2001-138
FAC Number	M-19/06
Finance Ref.	PF-969
SITE/ LINK NAME	GSM SITES
SYSTEM	GSM EXPANSION
EFFECTIVE DATE OF FAC	29th December, 2004.

Consequent upon successful completion of the works under the referred Contract, Oman Mobile is pleased to inform you that the works are hereby finally accepted with effective date as mentioned above.



DR. AMER AWADH AL RAWAS
MANAGING DIRECTOR

Cc: DH, FINANCE
DPOU,



OSB/M/rkp

Received original
N/A
11/03/06

4

No : OMT/MP&BD/NPO/299/2005

Date: 6/7/2005

Corr:

: الرقم

: التاريخ

: الموافق

M/S. SIEMENS AG,
P.O. BOX 1206, Seeb
POSTAL CODE 111
SULTANATE OF OMAN

PROVISIONAL ACCEPTANCE CERTIFICATE

Title of Project	Expansion of GSM Network (phase 3) in Dhakhliya, Dhairah and Sharqiya Regions and Connectivity to PSTN				
Contract Number	2003 192				
Finance Reference No.	PF/A 073				
P.A.C. Number	M 45/2005				
System	Mobile Communications				
Site / Link Name	Various - Details attached				
Effective Date of P.A.C.	28.02.2005				
Value					
Item	Discipline	Material Value in R.O.		Labour Value in R.O.	
		FSOW	As-Built	FSOW	As-Built
1	Mobile Communication	11,259,009.148	11,117,052.792	4,149,419.279	4,232,295.857

Consequent upon successful completion and testing of all the above-mentioned works pertaining to this PAC, under the referred contract, Omantel is pleased to inform you that the said works are hereby provisionally accepted. Siemens should clear all deficiencies under this contract before submitting for FAC.

Best Regards,


Bernhard Van Der Merwe
Network Division Head



CC : FU

SSS

Handwritten signature

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



Ref: No. omantel/POU/OMHQ/ PAC/ 1004 / 2005

Date: 1st November, 2005



To: **M/s Al Habib & Co.LLC**
PO Box 2663, PC-112, Muscat
Sultanate of Oman

PROVISIONAL ACCEPTANCE CERTIFICATE	
TITLE OF THE CONTRACT	CONSTRUCTION OF OMAN MOBILE HEAD OFFICE BUILDING- INTERNAL WORKS.
CONTRACT NUMBER	2005-003
FINANCE REFERENCE	PF/A-189
P.A.C NUMBER	HQOM/2005-02
SYSTEM	CIVIL CONSTRUCTION
SITE / LINK NAME	AL KHUWAIR
EFFECTIVE DATE OF PAC	08-04-2005

Consequent upon successful completion of the above works under the referred contract, Omantel is pleased to inform you that the works are hereby provisionally accepted with effective date as mentioned above.

You shall carry out necessary routine maintenance and attend defects and when called for until final acceptance.


Abdullah Badar Al Busaidi
Director- Program Office Unit



cc: Division Head- Corporate Development.
Division Head- Finance

RECEIVED
08 NOV 2005

BY: 

Oman Mobile
Communications
Company (L.L.C)

6

الشركة العمانية
للاتصالات المتنقلة (ش.م.م)

No : OMTC/MPBD/SP/ 1082/2004

Date : 19/06/2004

Corr.: 1/05/1425H

الرقم :

التاريخ :

الموافق :

To:

Ericsson,
Technical Office Oman
P. O. Box: 1945, Ruwi, Postal Code: 112,
Sultanate of Oman.

PROVISIONAL ACCEPTANCE CERTIFICATE	
TITLE OF PROJECT	CONTRACT NO 2003-111 Expansion of GSM Network in Muscat Governorate (phase 6)
CONTRACT NUMBER	2003 - 111
FINANCE REF	PF - A048-1 (Stage-1)
P. A. C. NUMBER	M/37/2004
SITE NAME	Stage-1
SYSTEM	GSM
EFFECTIVE DATE OF PAC	12 th February 2004

Consequent upon successful completion of the works under the referred contract, OMANTEL is pleased to inform that the above works are hereby provisionally accepted.

This Provisional Acceptance Certificate is issued with effect from the above mentioned date.

Best Regards,

BERNHARD VANDER MERWE,
DIVISION HEAD NETWORKS,
OMAN MOBILE COMMUNICATIONS COMPANY.

cc: GMFS

ERICSSON	
Reg. No.	002630
Date.	21 JUN 2004
Handled by.	M B G.
C.C.	M 57/N.

OMTC/GARY/M Contract No. 2003-111 (Stage-1)

مكتب المدير التنفيذي
Office of the Managing Director

No : OMTC/ND/PBD/RPO/ 1336 /2005

Date : 25 / 2 / 1426 AH

Corr.: 5 / 4 / 2005 AD

الرقم :

التاريخ :

الموافق :

To:

6

M/s Ericsson,
P. O. Box: 1945, Postal Code: 112,
Sultanate of Oman.

Final Acceptance Certificate

Title of Project						Supply , Installation of Equipment for Expansion of Existing GSM Network in The Sultanate of Oman, Muscat Governorate (Phase 6)					
Contract Number						2003 111, Stage 2					
Finance Ref:						PF / A048-2					
FAC Number						M 24 / 2005					
Sites and Value						Materials			Installation		
Sl no	Site name					Contracted Value US\$	As- Built Value US\$		Contracted Value US\$	As- Built Value US\$	
1	Various GSM systems (Details are attached as annexure to this document)					5,785,932.30	5,867,749.74		1,183,409.72	1,209,813.81	
System						GSM System					
Effective Date of FAC						3 rd March 2005					

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby finally accepted.

This Final Acceptance Certificate (FAC) is issued with effect from 3rd March 2005.

Regards,

Dr. Amer Awadh Al-Ra...
Managing Director



ERICSSON	
Reg. No.	001231
Date.	26 APR 2005
Handled by.	MRG
c.c.	MSZ/N

Cc: GM, Finance
DPMO

6

No : OMTC/ND/RPO/ 486 /2004

Date : 24 /07/ 1426 AH

Corr.: 29 /08/ 2005 AD

الرقم :

التاريخ :

الموافق :

ERICSSON

Reg. No. 003196

Date. 29 AUG 2005

Handled by. MBG

G.C. MS2/N

To:
M/s Ericsson,
P. O. Box: 1945, Postal Code: 112,
Sultanate of Oman

Provisional Acceptance Certificate

Title of Project						Supply , Installation of Equipment for Expansion of Existing GSM Network in The Sultanate of Oman, Muscat Governorate (Phase 6)					
Contract Number						2003 111, Stage 3					
Finance Ref:						PF / A048-3					
PAC Number						M 112 /2005					
Sites and Value											
Sl no		Site name		Materials			Installation				
				Contracted Value US\$			As- Built Value US\$				
				Contracted Value US\$			As- Built Value US\$				
1		Various GSM systems (Details are attached as annexure to this document)		11,836,347.23			11,736,901.82				
				3,750,620.59			3,640,070.01				
System						GSM System					
Effective Date of PAC						11 th May 2005					

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby provisionally accepted.

This Provisional Acceptance Certificate (PAC) is issued with effect from 11th May 2005.

Regards,

Bernhard Van der Merwe
Network Head Division



cc: G. M. Finance Unit

SAI/ZZ/2003 111 ST-3

No : OMT/CND/PMU 169/2005

Date : 5/5/1426 AH

Corr.: 12/6/2005 AD

: الرقم

: التاريخ

: الموافق

(6)

To:
M/s Ericsson,
P. O. Box: 1945, Postal Code: 112,
Sultanate of Oman.

Provisional Acceptance Certificate

Title of Project		Expansion of GSM Network in Muscat Governorate (Phase 6)			
Contract Number		2003 111, Stage 4			
Finance Ref:		PF / A048A-4			
PAC Number		M 60 / 2005			
Sites and Value		Materials		Installation	
Sl no	Site name	Contracted Value US\$	As- Built Value US\$	Contracted Value US\$	As- Built Value US\$
1	Various GSM systems (Details are attached as annexure to this document)	1,728,871.92	1,666,917.36	1,792,393.67	1,728,590.26
System		GSM System			
Effective Date of PAC		11 th February 2005			

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby provisionally accepted.

This Provisional Acceptance Certificate (PAC) is issued with effect from 11th February 2005.

Regards,



Bernhard Van der Merwe
Network Head Division



CC: G. M. Finance Unit

SAI / THR / ZZ / 2003 111 ST-4

ERICSSON	
Reg. No.	001907
Date.	14 JUN 2005
Handled by.	MBG
C.C.	MSZIN

عمان موبايل
oman mobile



No : OMTC/ND/PM/ 103 /2005

Date : 22/4/1426 AH

Corr: 30/5/2005 AD

: الرقم

: التاريخ

: الموافق

To:
M/s Ericsson,
P. O. Box: 1945, Postal Code: 112,
Sultanate of Oman.

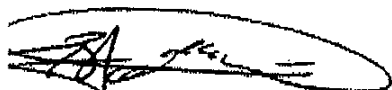
Provisional Acceptance Certificate

Title of Project						Implementation of E-GSM and Additional Requirement to Phase 6 (Supplementary to Contract 2003 111)					
Contract Number						2004 128, Stage 1					
Finance Ref:						PF / A120-1					
PAC Number						M 49 /2005					
Sites and Value						Materials			Installation		
Sl no	Site name	Contracted Value US\$	As-Built Value US\$	Contracted Value US\$	As-Built Value US\$						
1	Various GSM systems (Details are attached as annexure to this document)	3,746,953.98	3,697,390.69	441,478.06	434,023.56						
System						GSM System					
Effective Date of PAC						19 th January 2005					

Consequent upon successful completion of the works under the referred contract, OMAN MOBILE is pleased to inform that the above works are hereby provisionally accepted.

This Provisional Acceptance Certificate (PAC) is issued with effect from 19th January 2005.

Regards,


Bernhard Van der Merwe
Network Head Division



ERICSSON	
Reg. No.	001577
Date.	01 JUN 2005
Handled by.	MBG
C.C.	MSZ/N

CC: G. M. Finance Unit

SAI / THR / ZZ / 2004 128 ST-1

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



No. Omantel/POU/PAC/ITS//123/ 2005

Date: 7th December, 2005.

To: **M/s United Company for Computer Systems LLC (ITS Oman)**
PO Box 3296
Postal code 112, Ruwi
Sultanate of Oman.

TITLE OF THE CONTRACT	Supply, installation, integration, customization, configuration, testing and commissioning of Directory Assistance system BTS Application.
CONTRACT NUMBER	2005-117
FINANCE REFERENCE	PF- A-216
P.A.C NUMBER	BTS- 2005/3
SYSTEM	BTS Application
SITE / LINK NAME.	TCC, Ruwi
EFFECTIVE DATE OF PAC	19th July, 2005.

Consequent upon successful completion of the above works under the referred contract, Omantel is pleased to inform you that the works are hereby provisionally accepted with effective date as mentioned above.

You shall carry out necessary routine maintenance and attend defects as and when called for until final acceptance.


Abdullah Bader Al Busaidi
Director Program Office Unit

Cc: Head- Finance Division
Division Head, Corporate Development.

Attn: Mr. Mehmood Al Henazi

4 Pages

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



NO. : Omantel/POU/PAC/630 /2005
DATE : / /1426H
CORR. : 13 /06 /2005

الرقم :
التاريخ :
الموافق :

M/S. Sagh Trading & Contracting Est.
P.O. BOX: 07
PC: 411, Sur
SULTANATE OF OMAN.

PROVISIONAL ACCEPTANCE CERTIFICATE	
Title of Project	Construction of First Floor Over Al Suwaiq Telephone Exchange Building.
Contract No.	2004 058
P.A.C. Number	B10/05
Finance Ref.	A102
Site	Al Suwaiq Telephone Exchange Building
System	Civil Works.
Effective Date of PAC	31/08/2004

Insequent upon successful completion of the works under the referred Contract Number, Omantel is pleased to inform you that the works are hereby provisionally accepted with effective date as mentioned above.

You shall carry out necessary routine maintenance and attend all defects as and when called for, until final acceptance.

Regards,

Mullah Badar Al Busaidi
Director Programme Office Unit

PAISAL
14. 6 2005

RKG

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY

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عمانتل
Omantel
مكتب الرئيس التنفيذي
OFFICE OF THE EXECUTIVE
PRESIDENT

No. OMANTEL/EP/DHCD/2/1/FAC/ /2006

Date: 07th March, 2006.

To: M/s Sagh Trading & Contracting Est.
PO Box 7, Sur,
Postal code 411
Sultanate of Oman

FINAL ACCEPTANCE CERTIFICATE	
TITLE OF THE CONTRACT	Construction of first floor over Al Suwaiq Telephone Exchange Building
Contract No.	2004-058
FINANCE REFERENCE	A-102
F.A.C NUMBER	S-02/06
SYSTEM	Civil Construction
SITE / LINK NAME.	Al Suwaiq Telephone Exchange Building
EFFECTIVE DATE OF FAC	31 st August, 2005.

Consequent upon successful completion of the above works under the referred Contract, Omantel is pleased to inform you that the works are hereby finally accepted with effective date as mentioned above.

DR. MOHAMMED ALI AL WOHABI
EXECUTIVE PRESIDENT



الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



NO. : Omantel/POU/PAC/631 /2005
DATE : / /1426H
CORR. : 13 106 /2005

الرقم :
التاريخ :
الموافق :

M/S. Sagh Trading & Contracting Est.
P.O. BOX: 07
PC: 411, Sur
SULTANATE OF OMAN.


PROVISIONAL ACCEPTANCE CERTIFICATE

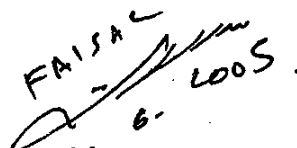
Title of Project	Construction of First Floor Over Ibra Telephone Exchange Building.
Contract No.	2004 137
P.A.C. Number	B11/05
Finance Ref.	A052
Site	Ibra Telephone Exchange Building
System	Civil Works.
Effective Date of PAC	08/02/2004

Insequent upon successful completion of the works under the referred Contract Number, Omantel is pleased to inform you that the works are hereby provisionally accepted with effective date as mentioned above.

You shall carry out necessary routine maintenance and attend all defects as and when called for, until final acceptance.

Regards,


Allah Badar Al Busaidi
Sector Programme Office Unit

FAISAL

12. 6. 2005.

RKG

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



No. OMANTEL/EP/DHCD/2/1/ FAC/ /2006

Date: 07th March, 2006.

To: M/s Sagh Trading & Contracting Est.
PO Box 7, Sur,
Postal code 411
Sultanate of Oman

FINAL ACCEPTANCE CERTIFICATE

TITLE OF THE CONTRACT	Construction of first floor over Ibra Telephone Exchange Building
Contract No.	2004-137
FINANCE REFERENCE	A-052
F.A.C NUMBER	S-01/06
SYSTEM	Civil Construction
SITE / LINK NAME.	Ibra Telephone Exchange Building
EFFECTIVE DATE OF FAC	08 th February, 2005

Consequent upon successful completion of the above works under the referred contract, Omantel is pleased to inform you that the works are hereby finally accepted with effective date as mentioned above.

DR. MOHAMMED ALI AL WOHAIBI
EXECUTIVE PRESIDENT



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الشركة العمانية للاتصالات
OMAN TELECOMMUNICATIONS COMPANY



No. Omantel/POU/PAC/ITS/741 / 2005

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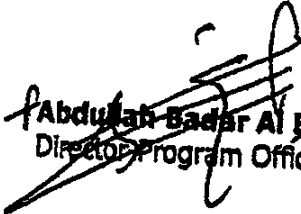
Date: 13th July, 2005

To: M/s United Company for Computer Systems LLC (ITS Oman)
PO Box 3296
Postal code 112, Ruwi
Sultanate of Oman.

PROVISIONAL ACCEPTANCE CERTIFICATE	
TITLE OF THE CONTRACT	Supply, installation, testing and commissioning of Hardware for D.Q system.
CONTRACT NUMBER	2005-118
FINANCE REFERENCE	PF- A-215
P.A.C NUMBER	HW-01/05
SYSTEM	HP Non stop S 7600 Platform Hardware.
SITE / LINK NAME.	TCC, Ruwi
EFFECTIVE DATE OF PAC	3 rd July, 2005

Consequent upon successful completion of the above works under the referred contract, Omantel is pleased to inform you that the works are hereby provisionally accepted with effective date as mentioned above.

You shall carry out necessary routine maintenance and attend defects as and when called for until final acceptance.


Abdulrahman Badar Al Busaidi
Director, Program Office Unit



Cc: Head- Finance Division
Division Head, Corporate Development.

