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UNIVERSITY OF SOUTHAMPTON

FACULTY OF BUSINESS AND LAW

School of Management

**CRITICAL SUCCESS FACTORS IN THE IMPLEMENTATION OF
PERFORMANCE MANAGEMENT SYSTEMS IN UAE GOVERNMENT
ORGANISATIONS**

by

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Thesis for the degree of Doctor of Philosophy

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Abstract

The UAE government's vision is to provide excellent services to UAE citizens and residents. Accordingly, its strategy stresses the need to increase the efficiency of governmental bodies and upgrade their level of service based on customer needs. In order to do this, the government plans to develop, build and implement appropriate PMSs and attain a better understanding of the critical success factors (CSFs) for their effective implementation, in order to optimise resources and efficiency. Owing to the lack of literature on performance management in the UAE, the literature relating to developing countries is here used as a proxy. The literature review produced a list of the common CSFs that may have a major impact on PMS implementation success. The present study attempts to deal with the various challenges identified in the literature and to make a contribution in a number of areas.

This study undertook research on government organisations in UAE, with a view to identifying the most important CSFs that support the successful implementation of PMSs. The remit of the research was narrowed to an attempt to understand the causes of PMS failure and to avoid possible obstacles in implementing PMSs. However, the study was not limited to the identification of such CSFs, but also examined their relevance and criticality. Qualitative research took the form of case studies, involving interviews, observations and document reviews.

This study makes several contributions to the literature on CSFs that influence successful PMS implementation in the government sector, principally in UAE and other developing countries, by identifying which CSFs should be considered in pursuit of successful PMS implementation and evaluating the impact of CSFs and the complex relationship between them and the implementation of PMSs. This study further presents a theoretical model for CSFs for successful implementation of PMS. The findings and recommendations could serve as guidelines for practitioners in the field of PMS and are expected to help government and public organisations fully benefit from the implementation of PMS.

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DECLARATION OF AUTHORSHIP

I, Salem Jraib Alharthi.....declare that this thesis and the work presented in it are my own and have been generated by me as the result of my own original research.

CRITICAL SUCCESS FACTORS IN THE IMPLEMENTATION OF PERFORMANCE MANAGEMENT SYSTEMS IN UAE GOVERNMENT ORGANISATIONS

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission.

Signed:

Date:

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Definitions and Abbreviations

ADGAS	Abu Dhabi Gas Liquefaction Company
ADNOC	Abu Dhabi National Oil Company
ADWEA	Abu Dhabi Water & Electricity Authority
ASTRO	ADWEA Strategic Transformation Project
BI	Business Intelligence
BSC	Balanced Score Card
BSP	Balanced Scoreboard Procedure
CSF	Critical Success Factor
EFQM	The European Foundation for Quality Management
GDP	Gross Domestic Product Per Capita
HDI	Human Development Index
KPI	Key Performance Indicator
MBO	Management By Objective
PM	Performance Measurement
PMS	Performance Management System
PPR	The Performance Prism
PPS	The Performance Pyramid
ProMES	Productivity Measurement and Enhancement
QPS	Quality Proposal System
SPA	Supportive Performance Measures
UAE	United Arab Emirates

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Organisations in today's rapidly changing global market understand that they need to measure and evaluate their business performance in order to remain competitive (Sharma et al., 2005). In an increasingly aggressive competitive environment, greater focus on continuous improvement, the evolution of quality concepts and significant developments in information and communication technologies have created a favourable context for the implementation of performance management systems (PMS) in many different organisations (Taticchi et al., 2010).

Privatisation and greater demands from stakeholders and customers are also placing new expectations on organisations, for which performance management have become a cornerstone of success (Bourne et al., 2002). PMSs serve the organisation in controlling its strategy and achieving its goals and objectives by supporting decision making and providing data on how effectively and efficiently services are delivered (Malina and Selto, 2001). A recent study found evidence of superior financial performance in those branches of an organisation that adopted PMS (Davis and Albright, 2004). Moreover, PMS provides the basis for an organisation to assess how well it is progressing towards its predetermined objectives, to identify areas of strengths and weaknesses and to decide on future initiatives with the goal of further improving organisational performance.

Performance management is not a goal in itself, but rather a tool for more effective management practice (Kaplan and Norton, 2001). The results of performance management provide information on what happened in an organisation, not why it happened or what to do about it. Hence, the outcomes of performance management must enable the organisation to make the transition from measurement to management. It must also allow the organisation to anticipate the changes needed in strategic direction and to identify a methodology for effecting such changes. Organisations that do not integrate ongoing performance management and feedback into their management development programmes tend to experience lower than expected improvements in

performance and higher dissatisfaction and turnover of employees (Longenecker and Fink, 2001).

There are two main concepts in the literature in this field, namely performance measurement (PM) and the performance management system (PMS). Performance measurement provides the data that will be collected, analysed, reported and used to make sound business decisions. PM may be defined in different ways. For example, Neely et al. (1995) define it as “*the set of metrics used to quantify both the efficiency and the effectiveness of actions. PMS*”. Another definition says “*it is the process that helps an organisation to formulate, implement and change its strategy in order to satisfy stakeholders’ needs*” (Gammel and Vereecke, 2004). The evolution of performance measurement into performance management has occurred in the last two decades; hence, nowadays PM is part of PMS.

PMS is much talked about both in the academic and the business environment, and has been demonstrated to be of great benefit to the developed business sector in the United Arab Emirates (UAE). Also, it is in line with the new government strategy 2008-2012 in the UAE. A review of the current literature on PMS practices indicates that much has been published about PMS implementation in developed countries, but little attention has been paid to their implementation in developing countries (de Waal, 2007). Similarly, there is a lack of literature regarding the impact of successful PMS implementation on the performance of public organisations (Jamil et al., 2011). More importantly, most previous studies have focused on the impact of PMS practices in Europe, USA and the Far East (de Waal, 2007). In contrast, few, if any, authors have analysed PMS implementation in developing countries (de Waal and Coevert, 2007; Ohemeng, 2010).

1.2 BACKGROUND

One of the key principles in the UAE government strategy document (2008-2012) is the determination to enhance the level of government-provided services to UAE citizens and residents by unified efforts within a common framework. This is in line with major economic developments taking place in the UAE and involves implementing best practice in all government sectors to achieve prosperity. It also aims to promote the UAE's regional and international status. The government's vision is to achieve excellence in providing quality services, nurturing creative minds, building national talents, innovating solutions and adopting international best practices. Ultimately, the UAE government wishes its practice to be a benchmark that other countries will aspire to reach. The government's performance-oriented strategy invites employees to change their existing mind-set and replace it with a culture that encourages creativity, innovation, dedication and productivity (*Policy Agenda 2007-2008. The Emirate of Abu Dhabi*).

The main spurs to developing this strategy are the dimension and speed of change that have dominated the international arena during the past few years, coupled with the slow pace at which many governments have responded to this change. The UAE government strategy stresses the need to synergise organisational planning and set clear and transparent assessment indicators to help monitor performance in every organisation and thus to ensure the highest standards for delivery of services to citizens (*Policy Agenda 2007-2008 - The Emirate of Abu Dhabi*).

Hence, one of the main principles of the UAE government's strategy is "*to increase the efficiency of governmental bodies, and upgrade the level of services based on customer needs*". This principle will be underpinned by developing, building and implementing effective government PMSs.

However, the ability to execute a strategy is as important as the quality of the strategy itself (Kaplan and Norton, 2001). Therefore, there is a need to take real, solid and sustainable steps towards developing a PMS that supports the strategy initiatives and measures the effectiveness and efficiency of the organisation's processes. This system has in turn to be aligned with the government's strategy and objectives.

1.3 RESEARCH PROBLEM

While PMS appears to be largely accepted and used in leading organisations around the world, few studies have investigated the critical success factors (CSFs) that affect the success of PMS implementation (Yeoh and Koronios, 2010). The CSFs can be defined as *“the critical areas in which organisations must become accomplished to achieve their mission, by examination and categorisation of their impacts”* (Oakland, 1995). The literature suggests that there are numerous CSFs that can be identified as being crucial to the successful implementation of PMS. It is crucial for UAE organisations to have a better understanding of these, as this will enable them to optimise their resources and efforts appropriately (Yeoh and Koronios, 2010).

One of the issues found during the first stage of the literature review was that there is a problem in implementing PMS in many organisations worldwide. Thus, the remit of the present research has been narrowed to an attempt to understand the causes of PMS failure and to avoid possible obstacles in implementing PMS within UAE government organisations, focusing specifically on identifying the CSFs that would support the successful implementation of PMS.

There is a gap in the literature on PMS in the UAE in both private and public sectors. The literature regarding PMS in the UAE has been carefully examined, and none has been found that is comparable to this thesis. However, due to the lack of literature on performance management in the UAE, the literature focusing on developing countries is used as a proxy. Even in developing countries, however, very limited literature examines aspects of performance management (Aljifri, 2007; Jarrar et al., 2007; de Waal and Coevert, 2007; Ohemeng, 2010). Most of the PMS literature concentrates on the PMS in the private sector, while less emphasis is on the public sector (Ruzita et al., 2009; Amir et al., 2010; Jamil et al., 2011; and others). Interestingly, no literature was found on the CSFs that impact PMS success in UAE or in developing countries.

However, UAE government organisations are not very familiar with the field of PMSs and need to seek assistance in their development and successful implementation, while ensuring that they are integrated with their strategies, management structure and processes. PMS will replace any current traditional measurement tools that do not

reflect all dimensions of the organisation's performance. Nevertheless, to minimise the risk of PMS failure, this research will investigate the critical successful factors (CSFs) that may theoretically have a major impact on PMS implementation success.

1.4 THE AIM OF THE RESEARCH

Although extensive research has been carried out to investigate the success and failure of PMSs in various organisations around the world (Bourne et al. 2002, Kennerley and Neely, 2002, Richardson, 2004, Ariyachandra and Frolick, 2008, de Waal and Counet, 2009), there is a distinct lack of published research on issues related to PMS critical success factors (CSFs). According to Ariyachandra and Frolick (2008), to help ensure PMS success, there are several critical success factors (CSFs) that should be considered. A structured discussion on problems encountered when implementing and using a PMS in general seems to be missing in the literature (Bourne et al., 2002). More research into the problems cause PMS implementation to fail is required in order to heighten the chance on a successful PMS (de Waal and Counet, 2009).

The aim of this research is to identify the most important CSFs that support the implementation of a simple and objective PMS framework for UAE organisations and the success of PMSs themselves. Moreover, this research aims to develop a framework for the facilitation and implementation of organisation-wide change, such as a performance management system (PMS). The research will specifically focus on governmental and public organisations in UAE, which share similar characteristics, assessing the correlation between the strategy, processes and PMSs. The outcome of this study will assist UAE organisations to implement effective PMSs and thus to help these organisations to better manage their strategies and enhance the efficiency of their business. The findings of the research should be of considerable interest and value to senior policy makers and managers and other interested parties. The researcher further plans to convey these results and recommendations to senior managers in UAE government organisations to enable them to put them to effective use.

Limited research is available on the possible causes of success or failure of PMS implementation and on the impact of different success factors on PMS implementation (de Waal and Counet, 2009). Poor understanding of the impact of CSFs leads to neglect

of their value in designing the right model and consequently increases the risk of failure (Bourne and Neely, 2002). The design of the present study attempts to deal with the various challenges identified in the literature and to make a contribution in a number of areas, including identifying which CSFs should be considered when striving for successful PMS implementation in UAE government organisations. Case studies and a review of the literature on similar situations will support the study.

1.5 RESEARCH QUESTIONS

This study poses two key research questions. They are:

Q 1: What are the critical success factors (CSFs) for the implementation of performance management systems (PMS) in UAE government organisations?

Q 2: How critical are these CSFs to the success of PMS implementation in UAE government organisations?

Question 1 aims to explore the significant success factors that have a major impact on the successful implementation of PMS in UAE government organisations.

Question 2 aims to assess the level of impact of different CSFs on the successful implementation of PMS in UAE government organisations and thus provide a short list of the CSFs that have the highest impact on PMS success.

1.6 RESEARCH MOTIVATION

Research suggests that the success of PMS has a direct impact on the success of organisations using it (Davis and Albright, 2004; Ariyachandra and Frolick, 2008; Yeoh and Koronios, 2010; Goh Swee, 2012, de Waal and Kourtit, 2013). However, discussions of PMS in the public sector have ignored the conditions that can impact on its effectiveness (Goh Swee, 2012) and there has been relatively little empirical research into whether balanced score card (BSC) actually works (Neely, 2008). There are even less research into the success and failure of PMS initiatives (Bourne et al., 2002). There are many success stories about PMS (e.g. Kaplan and Norton, 2000, the Mobile case), but literature increasingly reports the difficulties of implementing PMS successfully, and it is claimed by some researchers that 70% of PMS initiatives fail to implement successfully (Atkinson, 2006).

PMS implementation has been examined by several researchers (for example; Bourne et al., 2000; Ariyachandra and Frolick, 2008; Ferreira and Otley, 2009; de Waal, 2013). Implementing a PMS is not a simple activity, requiring resources and appropriate infrastructure over a long period (Bourne et al. 2002). Moreover, investing in PMS is acknowledged to be costly and there is a high risk of failure in its implementation, partly because the analysis and evaluation of PMS implementation has some limitations (Bourne and Neely, 2002). Yet, a set of critical success factors (CSFs) for successful implementation does exist (Bourne et al. 2002)

As mentioned earlier, little attention has been paid to the success factors that can facilitate the implementation of an effective PMS (Cavalluzzo and Ittner, 2004). Also, of all the research reported in the literature, most relates to developed countries – Europe, the USA and the Far East – and hardly any to developing countries (Salaheldin, 2009). Similarly, there is a lack of literature regarding the impact of successful PMS implementation on the performance of public organisations (Jamil et al., 2011). According to Bourne and Neely (2002), implementing a new PMS gives rise to problems and challenges, such as the need for a highly developed information system (Bierbusse and Siesfeld, 1997), time and expense (Bierbusse and Siesfeld 1997; McCunn, 1998), the quality of organisational leadership, and resistance to change (Hacker and Brotherton, 1998; Meekings, 1995). Kaplan and Norton (1996b) observe that PMS must be linked to strategy and business objectives, as well as to individuals' goals and targets.

Researchers also indicated other issues that may cause PMS to fail, for instance, Kennerley et al. (2002) and Radnor and Lovell (2003) stressed failure to use the right indicators and avoid complexity in PMS design, and the need to cascade PMS adequately to all levels in the organisation. Richardson (2004) highlighted the importance of senior management involvement in PMS development and implementation. Similarly, Morisawa and Kurosaki (2003) raised a concern about poor utilisation of information systems in data collection and processing. Many researchers concluded that staff involvement and seeing the benefit of PMS are very important for success (Kaplan and Norton, 2000; Ariyachandra and Frolick, 2008; Bourne et al. (2003) emphasised the importance of motivation and linking performance to incentives.

1.7 HISTORY OF PMS IN THE UAE

UAE government organisations are striving to create the conditions that will enable them to perform better (Abu Dhabi Sustainability Index, 2011). Consequently, all organisations have begun to seek new tools to enhance business excellence. A well-known performance management systems (PMS) framework, the balanced scorecards (BSC) system, which was created by Kaplan and Norton (1992), has been introduced by the government for this purpose in 2008. The UAE government, recognising the value of PMS as a tool to support continuous improvement, formally established an office for performance management to monitor the implementation of PMS in different organisations and instructed several organisations to report their performance in BSC format. In response, all organisations have established a set of measures and key performance indicators (KPIs) to meet the government's requirements (*The Abu Dhabi Economic Vision 2030*). There is a gap in the literature on PMS in the UAE in both private and public sectors. Consequently, the literature focusing on developing countries is used here as a proxy. Even in developing countries, however, this literature is limited (Aljifri, 2007; Jarrar et al., 2007; Radnor and Barnes, 2007; Ohemeng, 2009), and most of it concentrates on PMS in the private sector (Amir et al., 2010; Jamil et al., 2011; Ruzita et al., 2009).

In order to acquire better knowledge about the history of PMS in UAE, the researcher visited 14 managers in different government organisations to collect information about this area. To ensure the accuracy of the information, visits focused on managers with deep knowledge of PMSs. For instance, one of the participants was the ex-Director of Government Performance Management in the General Secretariat of the Executive Council, which is the department that manages performance for the Abu Dhabi government. Others were managers with great experience in the oil industry field, which was the first sector in UAE to introduce PMS, and executive managers from a sewerage company and power and water utilities.

A simple interview questionnaire was developed for this purpose and the interviews were started in September 2012 and completed in November 2012. The findings revealed that performance management systems (PMSs) have a very short history in the UAE. The first experience with such systems was in the early 2000s, when organisations such as the Abu Dhabi National Oil Company (ADNOC) introduced the

balanced scorecards (BSC) model, developed by Drs Kaplan and Norton in 1992 (Manager 9). However, the use of the BSC was limited to measuring some technical and operational performance indicators for business units. Although key performance indicators (KPIs) were designed from the strategy to support decision-making processes, but the system did not enjoy success, owing to a lack of management support (Manager 6).

Previously, the focus had been to measure financial performance and (in some cases) operational performance. In the absence of performance monitoring and reporting, such processes were slow and control was weak; hence, management felt a need to establish a system that would support business improvement (Manager 8 and Manager 10).

Based on the feedback received from managers in this survey, it is obvious that in the past twenty-five years, many fashions and ideas have come to the fore to measure and manage performance in government organisations. According to (Manager 6); one of the first, management by objective (MBO) was used as far back as the mid-1980s. This system had no links. Every business unit would select its objectives and manage them in any way it liked; it was a kind of bottom-up system. Such an isolationist approach prevented it from enjoying big success, as it was not linked to any strategic or organisational objectives. The system continued in use for only a short time, around two years. In the late 1980s the concept of departmental performance analysis was introduced. This involved reports by middle managers and attempted to link business processes to objectives. The idea was simple: it was about breaking down processes to sub-processes, and then measuring them. Even so, it failed to deliver the expected results and was short-lived (Manager 7).

(Manager 5) stated that in the early 1990s, total quality management (TQM) was introduced, but this system also failed to gain traction, as it had no links to rewards. There followed another method called the quality proposal system (QPS), which was designed to collect ideas and suggestions to improve the business. Because it was linked to rewards and recognition, this initiative fulfilled its purpose and succeeded, but it did not work as a performance management system, as its scope did not extend to that area. More systems were introduced in the 1990s, such as process re-engineering and internal auditing (Manager 6). But none of those systems succeeded as performance management systems, since they had objectives for supporting business improvement

and were not geared for managing overall performance. In the early 2000s, descriptive reporting for performance was used in organisational reports, mostly concerning financial and operational factors. A few technical KPIs were established in private-contract agreements with external partners; these were regularly monitored but the style was still bottom-up (Manager 5 and Manager 7).

Further, (Manager 9) explained that in the first years of the 2000s, ADNOC and its affiliate companies adopted the BSC on a limited scale or for similar systems. For example, the Abu Dhabi Gas Liquefaction Company (ADGAS), one of the companies belonging to the ADNOC group, implemented a similar system to the BSC with the support of the consultant company McKinsey. The system had four dimensions: HSE, operations, financial performance and organisational performance. It was a good initiative that was particularly strong in linking to staff incentives. Among other systems dating from the early 2000s was e.OPS, which was used to report operational and technical performance. Since 2003, some private organisations under privatisation projects have occasionally reported KPIs in Excel sheets, but these were purely technical and financial (Manager 5).

In 2006, the Executive Council, which represented the government, created a Performance Department (*The Abu Dhabi Economic Vision 2030, Nov 2008*). At that time, and in contrast to the oil companies, no government entity had previously established any kind of PMS. In 2007, the Environmental Authority was the first entity to develop a BSC with consultant support. In 2007, the Executive Council began developing a government strategy, and one year later published the first ever report on a government strategy and a business plan (Manager 9). That report included important concepts and guidelines about linking strategy to KPIs and using the strategy to build a performance matrix. The project started with 16 entities. By the end of 2008, this had increased to 32 so as to develop the BSC and the KPIs. The Executive Council organised visits to Singapore, Australia, UK and other countries. As a result of these efforts, a new mixed system was developed consisting of two levels: outcome-based management for high-level reporting, and a BSC for operational reporting (Manager 9).

In 2007, the Abu Dhabi Water & Electricity Authority (ADWEA) published the first public report for its companies, which included a five-year business plan and statistics for financial and technical results (<http://www.adwea.ae>). However, while the report

presented some performance results, it was not a structured performance report. In 2009, the government announced its 2030 vision with clear milestones and requirements (<https://www.abudhabi.ae/>). At that stage, all government organisations were instructed to report their performances against a set of KPIs in BSC format. ADWEA hired the same consultant as had worked with the government (Manager 12). This enabled them to design a strategy and a BSC that aligned with the government's vision and strategy. At that point, ADWEA started to develop the first top-to-bottom PMS, one that aligned with their strategy and which outlined objectives and KPIs for each level. The design was also enhanced to horizontally align all the ADWEA organizations, and to vertically cascade objectives top-down (Manager 7).

Today, all Abu Dhabi government organisations (63 organisations: <http://www.government.ae/>) have their own BSC and KPIs and report their performance regularly to the Executive Council.

1.8 UAE CULTURE

On 2 December 1971, The United Arab Emirates (UAE) was established as a federation of seven Emirates – Abu Dhabi, Dubai, Sharjah, Ras Al-Khaimah, Ajman, Umm Al-Qaiwain and Fujairah – which makes it a relatively young country. Before the exploration for oil in early 1960s, the people led a simple life, living in mud houses, travelling on foot or on camels and earning a living by fishing or diving for pearls. The UAE shares significant aspects of its culture with neighbouring Arab countries and the larger Arab culture.

With the discovery of oil, the UAE has experienced a tremendously rapid urbanisation, accompanied by a rapid change in people's lifestyle. The UAE has a very rich culture made up of its customs and traditions, social norms, religious beliefs, language and many other elements that are vital to the human social environment. (<http://www.everyculture.com/>)

The UAE is situated on the Arabian Gulf and covers 83,600 sq km, of which 97% is land and 3% islands. It has borders with three countries: Oman, Qatar and Saudi Arabia.

The capital city is Abu Dhabi, and Abu Dhabi Emirate is the biggest emirate, representing 85% of the land.



The UAE's population was estimated at around 8.264 million in mid-2010, the second largest in the Gulf after Saudi Arabia (*National Bureau of Statistics, March 2011*). The Emiratis (native people) were estimated at 947,997 in mid-2010, representing around 11.5% of the total population. Expatriates represent 88.5% of the population, at nearly 7.316 million.

The UAE has a highly developed economy and is rapidly diversifying, according to a number of international socioeconomic indicators such as gross domestic product (GDP) per capita, energy consumption per capita and the Human Development Index (HDI). At \$270 billion, the GDP of the UAE in 2008 ranked second in the Arab countries after Saudi Arabia, third in the Middle East/North Africa (MENA) region, behind Saudi Arabia and Iran, and 38th in the world.

Local culture has a major impact on any social research and the researcher needs to understand the people's values and beliefs and their influence on behaviour. Hofstede (2001: 9) defined culture as "*the collective programming of the mind which distinguishes the members of one group or category of people from another*"; it is this early programming that causes people to react differently in similar situations. Understanding the cultural setting and cultural influences is crucial to ensure effective governance of data collection and successful data analysis. Thus, as a result of increasing globalisation and growing interdependencies among nations, the need for a

better understanding of cultural influences on leadership and organisational practices has never been greater (House et al., 2004).

There are many factors that influence UAE culture and make it dynamic, among them the great preponderance of expatriates in the workforce – a characteristic unique to UAE society. There is a diversity of people from all continents, which forms a multicultural society with all kinds of traditions, beliefs and ethnicities. This rich diversity shifts and reshapes UAE culture, a new culture based on respect and acceptance of other cultures' traits, and sufficient flexibility to integrate differences and trends. On the other hand, the UAE native community has a tendency to embrace original traditions and customs, despite integration with other cultures of different backgrounds. UAE society is very conservative and a stronghold of Arab-Islamic values and codes of behaviour, which drive all aspects of life, as illustrated by the lack of separation between civil and religious law (Richardson, 2002). The UAE has experienced a significant increase in living standards in the last four decades. With the discovery of substantial oil reserves and the wise strategy of investment in oil revenues combined with diversification of industries and international trading, the UAE has become one of the wealthiest countries in the world (Abdulla and Shaw, 1999).

Thanks to this and the low percentage of UAE nationals to the country population (<11.5% in 2011), UAE residents have significant financial security and are usually guaranteed various alternative employment opportunities. Almost all private sector companies depend fully on foreign labour pools, which results in making the majority of the population guest employees (Ali and Azim, 1999; Alnajjar, 1996).

Ali and Dietrich (1992) found potentially divergent and contradictory loyalties to the country and one's local, regional or tribal group among Arabs. They noted that Arab executives usually placed more value on organisational loyalty than on personal loyalty. In addition, Ali and Dietrich (1992) observed that, although UAE citizens have a high level of commitment to their organisation, they may be strongly committed to task performance, rather than willing to extend extra assistance to other workers, most of whom may be foreign workers (Shaw et al., 2003).

On the other hand, the UAE still depends on Western specialists in many organisations at managerial level, owing to the lack of knowledge in many key technical functions. Western managers have brought new managerial concepts and styles to the country, some of which succeeded while others did not. Minnis (1999) conducted some studies about cross-cultural issues and reported problems that can occur when Western concepts and innovations are uncritically transferred to foreign cultures. This is supported by Hofstede's 1980 and 1997 comparative studies of the problems occurring when Western business practices are imported into developing countries. Minnis concluded that practices must be filtered through the local culture if they are to be successfully adopted.

One of the strengths in UAE business culture is the diversity of skills and knowledge found in the workforce. This mix and variety of different experiences from all over the world create a useful basis for implementing new systems such as PMS. A final point is that some bureaucracies still exist; for instance, staff still commonly follow strict rules and conform to the chain of command, and a very centralised decision-making process is the norm (Scott Jackson, 2008)

1.9 STRUCTURE OF THE THESIS

This thesis is arranged as follows. Chapter 1 defines the background of this research, the research problem, aims and objectives, the motivations for this project, UAE culture and history of PMS in UAE. . Chapter 2 presents a critical review of the literature related to performance measurement and PMS. The methodology used in the research is described and evaluated in Chapter 3. The results and data collection and coding results are summarised in Chapter 4. Chapter 5 presents an analysis and discussion of the results and identifies the outcomes of the research. Conclusions and recommendations for further study are presented in Chapter 6. Additional information and raw data are to be found in the appendices.

CHAPTER 2

LITERATURE REVIEW

2.1 BACKGROUND

Measuring organisational success is a continuous challenge for both managers and researchers (Maltz et al., 2003). Consequently, the performance management system (PMS) has received considerable attention over the last three decades (Bourne et al., 2002; Kennerley and Neely, 2002; de Waal, 2007). There is evidence that PMS is now implemented in approximately 70% of medium to large firms in the USA and Europe, as well as in many government departments (de Waal and Kourtit, 2013). Much research has been published on PMS and its value in improving the performance of organisations. Previous research findings conclude that the success of PMS has a direct impact on the success of organisations using it (de Waal, 2003; Davis and Albright, 2004; Ariyachandra and Frolick, 2008; Goh Swee, 2012). Moreover, empirical studies tend to suggest that organisations implementing PMS perform better than those that are not using it (Ittner et al., 2003; de Waal et al., 2003; Neely, 2008). The use of PMS as a management control tool can reduce overhead costs by 25% and increase sales and profits (Lawson et al., 2003). Other studies suggest that using PMS creates intangible benefits and supports the decision-making performance of managers and employees (Sandt et al., 2001; de Waal, 2003). Dumond (1994) and Lawson et al. (2003) found that using PMS and linking it to incentives significantly increases employee satisfaction. de Waal and Kourtit (2013) suggested that many organisations implement performance management because it is considered to be a means to gain competitive advantage and to continuously react and adapt to external changes (Chau, 2008; Cocca and Alberti, 2010).

The study of organisational performance has been at the core of management research for many years (Maltz et al., 2003). PMS is a critical factor for the effective management of an organisation, which may be due to the fact that, without measuring something, it is difficult to improve it (Salaheldin, 2009). There has been an increasing volume of empirical work

on PMS in the public sector (Radnor and McGuire, 2004; Boyne and Chen, 2007; Hoque, 2008; Sanger, 2008). The scope and breadth of these studies are as impressive as they are geographically diverse, for example in the USA, UK, Australia and New Zealand, and focus on many different government organisations. They also cover a broad range of service delivery functions in areas such as health, municipality and education (Goh Swee, 2012). With this substantial body of literature on PMS in both the public and the private sectors, there have been some conflicts of interest in studying both sectors; most studies review PMS in the private sector, while fewer focus on the public sector, where it has been reported to be less straightforward. PMS has become the focus of central agencies in governments aiming to address issues of accountability and transparency (Goh Swee, 2012).

Many PMSs have been introduced within the last three decades (Keegan et al., 1989; Lynch and Cross, 1991; Fitzgerald et al., 1991; Kaplan and Norton, 1992; Bititci et al., 1997; Kanji, 1998; Neely et al., 2002; and others). The balanced scorecard (BSC) developed initially by Kaplan and Norton (1992) is cited by Harvard Business Review as one of the most important management tools of the last 75 years, and PMS is currently attracting a great deal of interest among industrialists and academics (Bourne et al., 2002). The BSC PMS approach, which is also used extensively by other researchers, has been shown to be an effective system that provides a full evaluation of performance by combining different perspectives and measures (Jiménez-Zarco et al., 2006). Many researchers such as Moriarty and Kennedy (2002) and Johnsen (2000) argued that performance measurement had been used in the public sector for decades. Also, Moriarty and Kennedy (2002) suggest that, because public sector service organisations operate without market competition, the implementation of performance measurement is often used as a substitute for market pressures. However, the need for public sector organisations to implement PMSs can be readily justified (Radnor and Lovell, 2003).

Despite the widespread use of performance measurement in the public sector worldwide, there has been increasing criticism of its effectiveness in fostering performance improvement (Radnor and McGuire, 2004; Sanger, 2008), and the debate on whether PMS

as a management tool fulfils its role of performance improvement in public sector organisations remains live (Kelman and Friedman, 2009; Radnor and McGuire, 2004). Earlier discussions of PMS in the public sector have ignored the conditions that can impact the effectiveness of PMS (Goh Swee, 2012). Nevertheless, according to Neely (2008), there is cautionary evidence from three Austrian academics who report that 8% of 174 companies studied decided not to implement the BSC approach because they could not see any advantages of the system, especially given the implementation effort required (Speckbacher et al., 2003). Despite all this debate, it is interesting that there has been relatively little empirical research into whether BSC is actually useful or not (Neely et al., 2005). However, there has been even less research into the success and failure of performance measurement initiatives (Bourne et al., 2002).

With the rapid globalisation of the UAE economy, government organisations are facing an increasingly challenging situation. Stakeholders' expectations are increasing and customer satisfaction is becoming more difficult to achieve. Thus, UAE government organisations are competing to create the conditions that will enable them to perform better. Notwithstanding the complexities in implementing PMS, there has been little empirical research about the critical success factors (CSFs) impacting the successful implementation of PMS (Ariyachandra and Frolick, 2008). Also, there has been very limited empirical research about PMS in UAE and in the Middle East generally. These gaps in the literature are reflected in the low level of contributions to international conferences and journals. The purpose of this study is to provide UAE government organisations with an understanding of those CSFs that influence successful implementation of PMS.

To sum up, PMS is an established concept that has received renewed attention in a variety of organisations (Taticchi et al., 2010). Historically, PM systems were developed as a means of monitoring and maintaining organisational control in order to ensure that an organisation pursues strategies that lead to the achievement of its overall goals and objectives (Neely et al., 2005). The development of a PM system in management has followed a path that has been influenced by a general push to improve the quality of services while meeting strict cost parameters (Bititci et al., 2000). The design of an

effective PMS, which includes the selection of appropriate measures and approaches for analysing results, is central to aligning an organisation's operations with its strategic direction (Kaplan and Norton, 2006).

2.2 PERFORMANCE MEASUREMENT AND MANAGEMENT

DEFINITIONS

Although there is no one agreed definition of PMS in the organisation performance literature, there are two interrelated terms that commonly occur, performance measurement (PM) and performance management system (PMS), which tend to be used interchangeably (Franco-Santos et al., 2007).

This section will provide different definitions of both terms and will explain the relationship between them. Neely et al. (1995) defined PM as “*the process of quantifying the efficiency and effectiveness of action*”. Rouse and Putterill (2003) defined PM as “*the comparison of results against expectations with the implied objective of learning to do better*”. Lebas (1995) and Amaratunga and Baldry (2002) believe that measurement is not an end in itself, but a tool for more effective management, as the results of PM indicate what happened, not why it happened or what to do about it. Bourne et al. (2003, p. 4) defined PM as “*the use of a multi-dimensional set of performance measures for the planning and management of a business*”.

The term PMS is commonly used to describe a range of managerial actions aimed to monitor, measure and adjust aspects of organisational performance through different management controls (Franco-Santos et al., 2007). Moreover, Bititci et al. (1997, p. 533) defined PMS as a “*process by which the company manages its performance in line with its corporate and functional strategies and objectives*”. From the strategic point of view, PMS is a system that not only allows an organisation to cascade down its business performance measures, but also provides it with the information necessary to challenge the content and validity of the strategy (Ittner et al., 2003).

The distinction between performance measurement and performance management systems become clearer when the literature (Otley, 1999; Ittner et al., 2003; Neely et al., 2005) starts discussing broadening the scope of PM to include the development of strategies or objectives and the taking of actions to improve performance, based on the insight provided by the performance measures (Neely et al., 2005). It could be argued that performance measurement is the act of measuring performance, whereas performance management aims to react to the “outcome” measure, using it in order to manage performance (Radnor and Lovell, 2003). Hence, in order for an organisation to make effective use of its performance measurement outcomes, it must be able to make the transition from measurement to management. Based on this, a performance management system can be defined as a collection of activities, including the setting of objectives or strategies, identification of action plans, decision making, execution of action plans and the assessment of achievement of objectives and strategies (Bititci et al., 2000).

2.3 THE EVOLUTION OF PERFORMANCE MANAGEMENT

Financial measures have long been used as the sole criteria to evaluate the performance of organisations. According to Lebas (1995), the traditional managerial accounting model of a firm is focused on product-costing and defines performance as income, that is, the difference between sales and costs. Bourne and Neely (2003) state that *“traditional accounting based performance measures have been characterised as being financially based, internally focused, backward-looking and more concerned with local departmental performance than with the overall health or performance of the business”*. Also, within purchasing, the traditional approach to performance measurement is an efficiency-based PMS, focused on minimising costs and maximising functional operating efficiency (Dumond, 1994).

In the early 1980s, however, several academics and practitioners realised that, owing to the increased complexity of organisations and the markets in which they compete, it was no

longer appropriate to use financial measures as the sole criteria for assessing success. Johnson and Kaplan (1987), for example, highlighted the failure of financial performance measures to reflect changes in the competitive circumstances and strategies of modern organisations. While profit remains the overriding goal, it is considered an insufficient performance measure, as measures should reflect what organisations have to manage in order to profit. Kaplan and Norton (1992) show that traditional financial measures fail to provide information on what customers want and how competitors are performing.

This is one of the reasons why a performance management revolution started in the early 1990s. Many researchers started to develop new PMSs, which were able to overcome the shortcomings of traditional PMSs. According to Neely (1999), *“there are seven main reasons for the ‘performance management revolution’:*

- 1. the changing nature of work, making traditional accounting systems with their emphasis on direct labour obsolete;*
- 2. increasing competition, driving a need for measures of quality of service, flexibility, customisation, innovation and rapid response;*
- 3. specific improvement initiatives that rely on performance measurement, such as Total Quality Management, Lean Production or World Class Manufacturing;*
- 4. the establishment of national and international quality awards;*
- 5. changing organisational roles for performance measurement from accounting staff to human resources managers;*
- 6. changing external demands on performance accountability, such as the demands from regulators in newly deregulated industries;*
- 7. the power of information technology, making the capture and analysis of data far easier, and opening up new opportunities for data review and subsequent action.”*

In summary, the literature review (Wilcox and Bourne, 2002; Radnor and McGuire, 2003, Neely, 2005) suggests that the evolution of performance measurement went through three main phases. Traditional performance measurement was developed from cost and management accounting (1850-1925). The second phase emerged in the 1980s, when this purely financial perspective on performance measures was felt to be inappropriate and the

concept of multi-dimensional performance measurement frameworks was developed. Many PMSs developed, such as Supportive Performance Measures (SPA) (Keegan et al., 1989); the Performance Pyramid (Lynch and Cross, 1991); and the BSC (Kaplan and Norton, 1992). The third phase started in the mid-1990s, when performance measurement literature started to be dominated by discussion around strategy maps and using these to show the link between key performance indicators (Wilcox and Bourne, 2002).

2.4 PERFORMANCE MEASUREMENT SYSTEMS IN PRACTICE

During the PMS revolution which started in early 1990s, many PMSs were developed to overcome the drawbacks of traditional PMSs. According to Frigo and Krumwiede (1999), survey data suggest that between 40% and 60% of companies significantly changed their PMSs between 1995 and 2000, with a view to helping them define a set of measures that reflected their objectives and assessed their performance accordingly. Such systems are usually multi-dimensional, explicitly balancing financial and non-financial measures. A wide range of criteria has also been developed, indicating the functions and elements of effective performance measures and measurement systems.

Various authors have suggested different PMS frameworks for measuring performance of an organisation. Table 2.1 lists the major PMS frameworks based on the literature survey.

Name of the model	Period of introduction
ROI, ROE, ROCE and derivatives	Before 1980s
The Gaps Model (Parasuraman, Zeithaml & Berry, 1985) SERVQUAL (Parasuraman et al., 1988). Activity based costing (ABC) – activity based management (ABM, 1988) The strategic measurement analysis and reporting technique (SMART, 1988) Supportive performance measures (SPA, 1989) Customer value analysis (CVA, 1990) The performance measurement questionnaire (PMQ, 1990) Productivity Measurement and Enhancement System (ProMES) (Pritchard, 1990)	1980-1990
The Performance Pyramid (PPS) (Lynch and Cross, 1991) The results and determinants framework (RDF, 1991) The balanced scorecard (BSC, 1992) The European Foundation for Quality Management (EFQM) (1992) The economic value added model (EVA, 1993) The service-profit chain (SPC, 1994) The return on quality approach (ROQ, 1995)	1991-1995
The Cambridge performance measurement framework (CPMF, 1996) The consistent performance measurement system (CPMS, 1996) The integrated performance measurement system (IPMS, 1997) The comparative business scorecard (CBS) The integrated performance measurement framework (IPMF, 1998) The business excellence model (BEM, 1999) A dynamic performance measurement system (DPMS, 2000)	1996-2000
The action-profit linkage model (APL, 2001) The manufacturing system design decomposition (MSDD, 2001) The performance prism (PPR, 2001) The performance planning value chain (PPVC, 2004) The capability economic value of the intangible and tangible assets model (CEVITA, 2004)	2001-2004
The performance, development and growth benchmarking system (PDGBS, 2006) The unused capacity decomposition framework (UCDF, 2007)	2006-2007

Table 2.1: List of major PMS models adopted from (Taticchi et al., 2010; Morgan, 2007).

Source: Kurien and Qureshi, 2011.

Some of the important performance measurement frameworks are discussed below as examples of PMSs.

- Supportive Performance Measures (SPA) (Keegan et al., 1989);
- Productivity Measurement and Enhancement System (ProMES) (Pritchard, 1990);
- The Performance Pyramid (PPS) (Lynch and Cross, 1991);
- The Balanced Scorecard (BSC) (Kaplan and Norton, 1992);
- The European Foundation for Quality Management (EFQM) (1992);
- The Performance Prism (PPR) (Neely et al., 2001).

2.4.1 Supportive Performance Measures (SPAs)

Keegan et al. (1989) presented supportive performance measures as a performance measurement system. This model is simple and easy to use for performance measurement (Neely, 2002). It includes financial as well as non-financial indicators. However, the model could have been developed further to incorporate certain elements of refined lead measures. Lead measures are measures that focus on analysing forward-looking, predictive and future performance comparisons (Anderson and McAdam, 2004). Further, the model does not make explicit links between different dimensions of business performance, which makes the measurement of performance of a system complex.

2.4.2 Productivity Measurement and Enhancement System (ProMES)

The productivity measurement and enhancement system (ProMES) was developed by Pritchard (1990). It is designed to be a practical method of measuring organisational productivity. Basically, ProMES is a formal, user friendly and step-by-step process that identifies organisational objectives, develops a measurement system to assess how well the unit is meeting those objectives and develops a feedback system that gives unit personnel and managers information on how well the unit is performing (Pritchard et al., 2002).

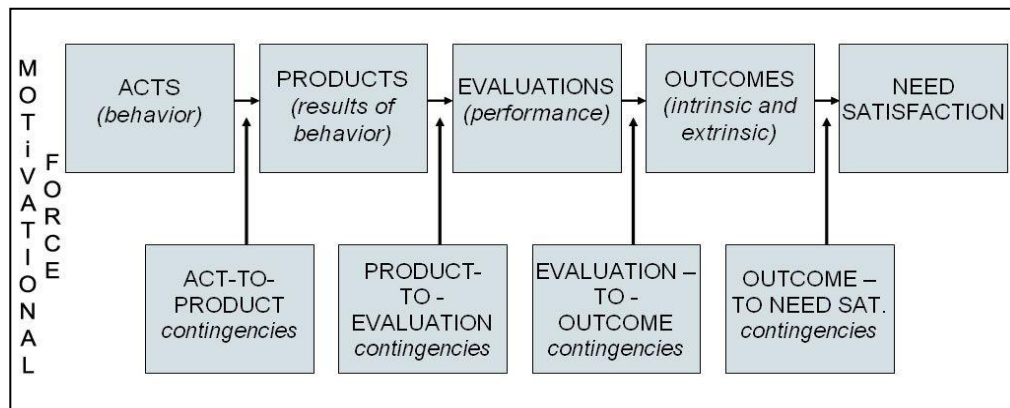


Figure 2.1: Schematic of ProMES (Pritchard, 1990).

ProMES is based on the theory of work behaviour. As shown in Figure 2.1, ProMES is built up around the concept of motivational force. The motivation is seen as a resource allocation process, where the resource is a person's time and energy, which is allocated across possible actions or tasks (Pritchard et al., 2002). The motivational force is defined as

the degree to which a person believes that changes in the amount of personal resources in the form of time and energy devoted to different tasks over time will lead to the desired outcomes (Pritchard et al., 2002).

Although ProMES is not as popular as the BSC, it has been reported that about 120 ProMES projects have been executed in organisations in nine countries (Pritchard et al., 2002). Some of the features of ProMES have met with great success, for instance, its bottom-up approach has helped people to become really involved in the design of the system, which increases its acceptance among users. Another interesting feature of ProMES is its use of contingencies where priorities for improvement can be set. The design of indicators with a non-linearity function assists in capturing better results and making a satisfactory contribution to the overall functioning of the organisation (Pritchard et al., 2002). At the same time, these contingencies make the system more difficult to develop and more effort has to be put into explaining the system.

2.4.3 Performance Pyramid System (PPS)

The performance pyramid system (PPS) was originally developed by Judson (1990) and later improved by Lynch and Cross (1991). The purpose of PPS is to link an organisation's strategy with its operations by translating objectives from the top down and information measures from the bottom up (Kurien and Qureshi, 2011). PPS monitors performance at different levels of the organisation. The performance pyramid, as shown in Figure 2.2, is structured in four levels of objectives in two groups, the left side of the pyramid referring to the organisation's external effectiveness and the right side to internal efficiency.

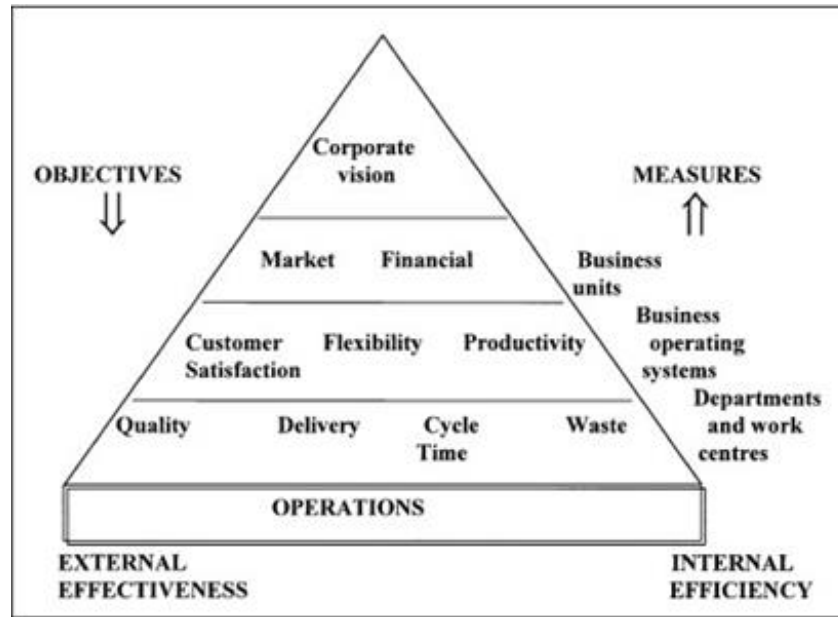


Figure 2.2: Schematic of PPS (Lynch and Cross, 1991).

Moreover, PPS is an interrelated system of performance variables, which are controlled at different organisational levels. Lynch and Cross (1991) use a pyramid-shaped “map” for understanding and defining the relevant objectives and measures for each level of the business organisation. The four levels of PPS embody the corporate vision, accountability of the business units, competitive dimensions for business operating systems and specific operational criteria. PPS separates measures that are of interest to external parties, such as customer satisfaction, quality and delivery, from measures that are primarily of interest within the business, such as productivity, cycle time and waste.

According to Ghalayini et al. (1996), the main strength of PPS is its attempt to integrate corporate objectives with operational performance indicators. Bond (1999) argues that direct personnel measures have not been considered in this approach or in the BSC approach. Kurien and Qureshi (2011) suggest that this approach does not provide any mechanism by which to identify key performance indicators, nor does it explicitly integrate the concept of continuous improvement. Similarly, Hudson et al. (2001) suggest that the main problem with PPS is its failure to specify the details relating to the form of measures of performance or the process for developing them, with no apparent scope for lead measures of performance.

2.4.4 The Balanced Scorecard (BSC)

The best-known performance measurement system is undoubtedly the balanced scorecard (BSC), developed by Kaplan and Norton (1992). According to Kaplan and Norton (1996b), BSC is a multi-dimensional framework for describing, implementing and managing strategy at all levels of an enterprise by linking, through a logical structure, objectives, initiatives and measures to an organisation's strategy.

The BSC was cited by Harvard Business Review as one of the most important management tools of the last 75 years, and it is currently attracting a great deal of interest among industrialists and academics (Bourne et al., 2002). The BSC performance management system approach, which is also used extensively by other researchers, has been shown to be an effective system that provides a full evaluation of performance by combining different perspectives and measures (Jiménez-Zarco et al., 2006). Malina and Selto (2001) conclude that BSC as designed and implemented is an effective device for controlling corporate strategy. Another study found evidence of superior financial performance in branches of an organisation that adopted the BSC approach (Davis and Albright, 2004). Evidence suggests that by 2001 the BSC had been adopted by 44% of organisations worldwide (57% in the UK, 46% in the US and 26% in Germany and Austria) (Neely, 2008).

Figure 2.3 shows the original structure for BSC. According to Kaplan (2008), BSC retains financial metrics as the ultimate outcome measures of company success, but supplements these with metrics from three additional perspectives: customer, internal process, and learning and growth. These four dimensions, providing an enterprise view of the organisation's overall performance, were proposed by Norton and Kaplan (1992) as the drivers for creating long-term shareholder value.

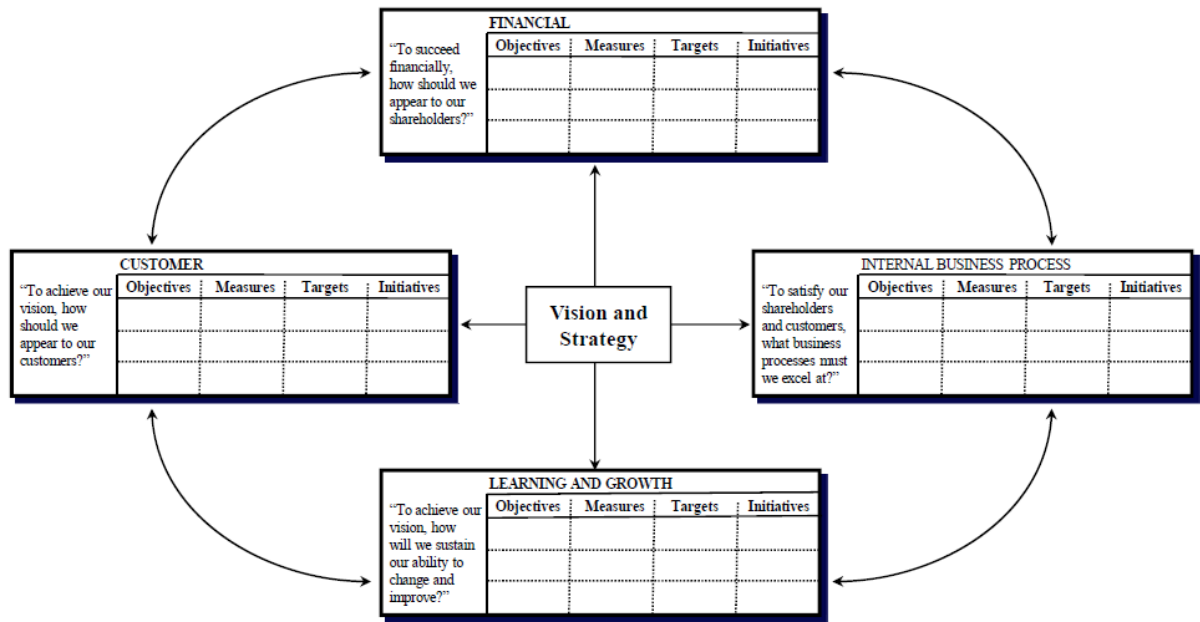


Figure 2.3: Balanced Scorecard PMS (adapted from Kaplan, 2008).

The four building blocks of BSC are:

- Financial perspective: typically related to profitability. It is measured, for example, by return on investment (ROI) and economic value added (EVA).
- Customer perspective: uses measures such as customer satisfaction and market share in targeted segments.
- Internal processes: focuses on the internal processes that have major impact on the organisation's success.
- Learning and growth: measures the infrastructure that the organisation has to build and manage to create long-term growth and improvement through people, systems and organisational procedures.

BSC is not a static list of measures, but rather a logical framework for implementing and aligning complex programs of change and, indeed, for managing strategy-focused organisations (Abran and Buglione, 2003). BSC is more like a strategic management tool, rather than a true complete PMS (Gomes et al., 2004). According to Kaplan and Norton (1996b), the scorecard translates the vision and strategy of a business unit into objectives and measures, which is then monitored through an internal performance measurement framework with a set of goals, drivers and indicators grouped into each of the four

perspectives (Abran and Buglione, 2003). Moreover, the BSC model is flexible to meet business requirements, for instance internal processes such as risk management are embedded in the system. The balanced scorecard was found to be an effective assessor of risk (Olson and Desheng, 2008) and has therefore been proposed in the context of risk management (Papalexandris et al., 2005).

However, Neely et al. (2000) argue that, although BSC is a valuable framework suggesting important areas in which performance measures might be useful, it provides little guidance on how the appropriate measures can be identified, introduced and ultimately used to manage business. They further conclude that BSC does not consider the competitor perspective at all. Kurien and Qureshi (2011) observe that BSC does not specify any mathematical logical relationships among the individual's scorecard criteria. It is thus difficult to make comparisons within and across firms (Soni and Kodali, 2010). Despite such criticisms, BSC still has the largest market penetration of all PMSs and tackles performance at several levels, from the organisational level to the small business unit, and even to the individual level (Abran and Buglione, 2003).

2.4.5 The European Foundation for Quality Management (EFQM)

There are common areas and interrelated functions between business excellence awards and other performance management systems. The literature (Tan, 2002; Taticchi, and Balachandran 2008, Edgeman et al., 2012) suggests that many organisations around the world are using business excellence models as a framework for PMS. Taticchi, and Balachandran (2008) argue that business excellence models should include performance measurement embedded in their functions. However, there are several international business excellence models, some of the most popular models being:

- the European Foundation for Quality Management (EFQM) Excellence Model
- the Malcolm Baldrige National Quality Award (MBNQA)
- the Australian Business Excellence Framework (ABEF), and
- the Deming Prize.

Business excellence models are also effective tools for internal and external benchmark processes. Moreover, business excellence models do not address any specific, structured and step-by-step processes of PMSs but work very well as tools to identify indicators, areas or pillars of performance management (Tan, 2002).

The European Quality Excellence Model was introduced by EFQM in 1992 to promote quality and as the framework for assessing organisations in European countries. It is now the most widely used organisational framework in Europe and has become the basis for the majority of national and regional quality awards (Michalska, 2008). This award evaluates organisations on nine criteria: policy and strategy, leadership, staff, management, processes, resources, external customer satisfaction, internal customer (employee) satisfaction, impact on society, and business. See Figure 2.4 for illustration.

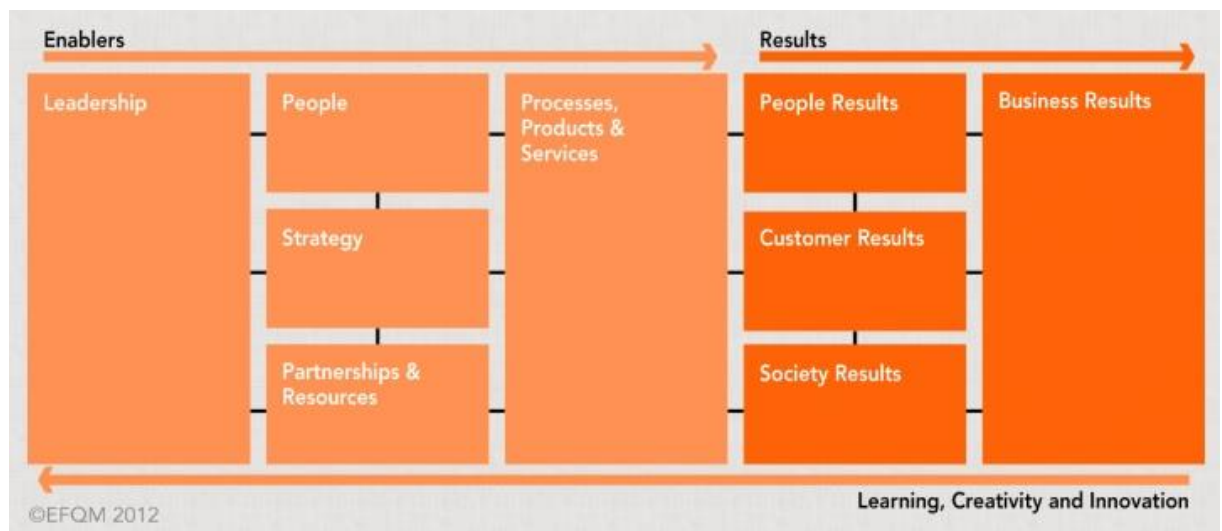


Figure 2.4: EFQM model in action (source: EFQM.org).

Another business excellence model is the Japanese Deming Prize, established in 1951 to recognise quality achievement in Japanese organisations. It was named after the leading thinker and innovator W. Edwards Deming, who helped Japan to overcome the economic crisis that occurred just after the war. The Union of Japanese Scientists and Engineers manages the award and it may be given in four categories: individual, operating organisations and companies, factories, and Japanese companies located outside Japan. There are many criteria by which this award is judged, including: quality assurance; new

product and technological development; process control; quality evaluation and audit; top management; daily management; policy management, human resource management; organisation structure and its operation; education and training; relationships to international standards such as ISO; activities covering the whole cycle; cross-functional management; environment and safety management; relationship with customers, suppliers and shareholders; supplier management; and continuously securing profit.

Similarly, the Malcolm Baldrige National Quality Award (MBNQA) was established in 1987 by the US Congress to recognise American organisations for superlative performance and quality in seven areas: 1) leadership, 2) strategic planning, 3) customer and market focus, 4) measurement, analysis and knowledge management, 5) work force focus, 6) process management, and 7) results (Prybutok et al., 2011). The award may be given each year in six categories: manufacturing, service, small business, health care, education and nonprofit organisations. The MBNQA model is updated yearly and the revised criteria are posted on the website of the National Institute for Standards and Technology (<http://www.nist.gov>), which manages the award. However, according to the award website (http://baldrige.nist.gov/Business_Criteria.htm), the core criteria have remained constant at the global level since its creation. Prybutok et al. (2011) observe that, because of its prominence as a quality assessment tool, the MBNQA has attracted the attention of researchers.

2.4.6 The Performance Prism (PPR)

The Performance Prism (PPR), developed by Neely and Adams (2000), is a PMS organised around five distinct but linked perspectives of performance (Kennerley and Neely, 2002):

- Stakeholder satisfaction: who are the stakeholders and what do they want and need?
- Strategies: what are the strategies we require to ensure the wants and needs of our stakeholders?
- Processes: what are the processes we have to put in place in order to allow our strategies to be delivered?
- Capabilities: the combination of people, practices, technology and infrastructure that together enable execution of the organisation's business processes.

- Stakeholder contributions: what do we want and need from stakeholders to maintain and develop those capabilities?

Neely et al. (2001) argue that the common belief that PMS should be strictly derived from strategy is incorrect. It is the wants and needs of stakeholders that must be considered first. Thus, PPR has a much more comprehensive view of different stakeholders (e.g. investors, customers, employees, regulators and suppliers) than other frameworks. The strength of this conceptual framework is that it first questions the company's existing strategy before starting the process of selecting measures (Neely et al., 2001).

The prism represents the five perspectives; see Figure 2.5: the top and bottom faces represent the stakeholders' satisfaction and contribution, respectively, and the three side faces represent strategies, processes and capabilities. These five distinct, but logically interlinked, perspectives on performance were identified by Neely and Adams (2000).

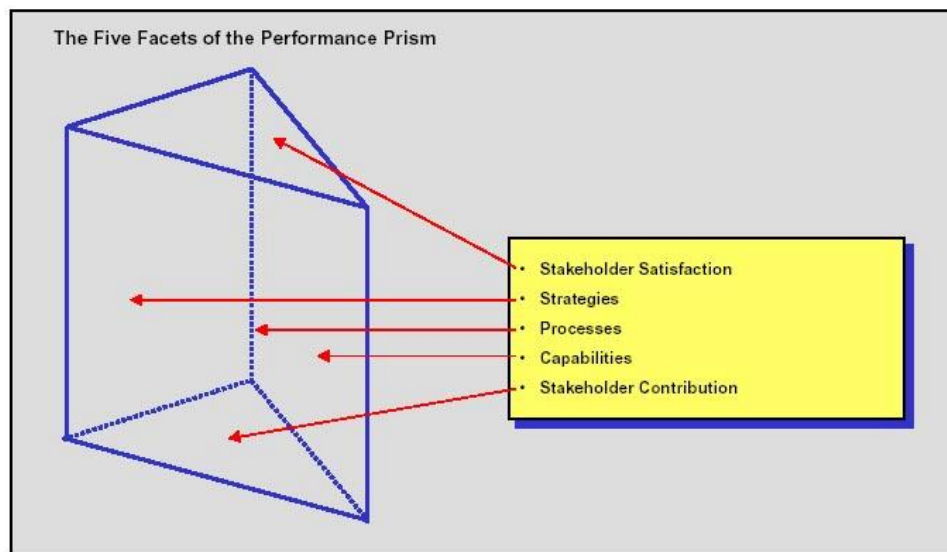


Figure 2.5: The Performance Prism (source: Neely and Adams, 2000).

PPR distinguishes itself from other PMSs by taking into account not only stakeholders such as customers and employees but also a wider spectrum of stakeholders, to include suppliers, regulators, local communities, pressure groups, media and others. Neely et al. (2001) argue that PPR's principal appeal lies in the logical interrelationships between the five perspectives; its comprehensiveness and adaptability, allowing different entry points; and the fact that stakeholders are considered in a wholly original and radical way.

2.5 PERFORMANCE MANAGEMENT SYSTEM IMPLEMENTATION

The implementation of a PMS is a challenge and a complex undertaking that requires considerable effort (Bourne and Neely, 2002). Yet there is a set of critical success factors (CSFs) for the successful implementation of PMS (Ariyachandra and Frolick, 2008). A growing literature has emerged that examines PMS implementation (Bourne et al., 2000; de Waal, 2003; Ariyachandra and Frolick, 2008; Ferreira and Otley, 2009; and others) but there is limited research on what might be the cause of success or failure of PMS implementation, as well as on the level of impact of different success factors on PMS success. Weak understanding of the impact of the CSFs leads to a neglect of their value in designing the right model and consequently increases the risk of failure. To respond to some of those concerns, this study undertakes research on the implementation of PMS in government organisations in UAE.

Despite the widespread use of performance measurement in the public sector worldwide, there has been increasing criticism of its effectiveness in fostering performance improvement (Radnor and McGuire, 2004; Sanger, 2008), and the question of whether PMS as a management tool fulfils its role of performance improvement in public sector organisations remains unanswered (Kelman and Friedman, 2009; Radnor and McGuire, 2004). Earlier discussions of PMS in the public sector have ignored the conditions that can impact the effectiveness of PMS (Goh Swee, 2012). However, more studies have addressed the issue of the conditions needed for performance measures to be adopted and implemented in public organisations (Julnes and Holzer, 2001; Hoque, 2008; Verbeeten, 2008).

There is now growing literature relating to the difficulties of implementing PMS successfully, and it is claimed by some researchers that 70% of PMS initiatives fail (McCunn, 1998). Nevertheless, according to Neely (2008), there is cautionary evidence from three Austrian academics, who report that 8% of 174 companies studied decided not to implement the BSC approach because they could not see any positive impact or advantages in the system, especially given the implementation effort required (Speckbacher et al., 2003). There has been relatively little empirical research into whether BSC works

(Neely, 2008), and even less research into the success and failure of performance measurement initiatives (Bourne et al., 2002).

While PMSs appear to be largely accepted and used in leading organisations around the world, few studies have investigated the CSFs that affect their successful implementation (Ariyachandra and Frolick, 2008). CSFs can be defined as the critical areas in which organisations must become accomplished to achieve their mission by an examination and categorisation of their impacts (Oakland, 1995). There are numerous CSFs that can be identified as being crucial to the successful implementation of PMS.

It is crucial for UAE organisations to have a better understanding of the CSFs influencing PMS success, as this will enable them to optimise their resources and efforts by focusing on those most likely to be helpful (Bourne et al. 2002). As previously stated, there has been very limited empirical research into PMS in UAE and the Middle East. There is a gap in the literature on PMS in the UAE in both private and public sectors. The literature regarding PMS in the UAE has been carefully examined, and none has been found that is comparable to this thesis. However, owing to the lack of literature on performance management in the UAE, the literature focusing on developing countries is used as a proxy. Even in developing countries, however, very little literature examines aspects of performance management (Aljifri, 2007; Jarrar et al., 2007; Radnor and Barnes, 2007; Ohemeng, 2009). Most of the PMS literature concentrates on PMS in the private sector; less emphasis is on the public sector (for example Amir et al., 2010; Jamil et al., 2011; Ruzita et al, 2009).

2.6 CRITICAL SUCCESS FACTORS

Critical success factors (CSFs) are factors that are essential for the success of any business; they vary according to the type of business. Identifying the CSFs of an organisation involves understanding its capabilities and strengths, which it can build upon to achieve its strategic goals and objectives. CSFs are often dynamic; they change with time, circumstances and the future goals of the organisation. They may exist for each level of the organisation's operations, such as processes, functions, staff learning and skills, techniques and technologies. Some people may confuse CSFs with key performance indicators (KPIs), from which they differ. CSFs are elements that are vital for the success of a strategy, while KPIs are measures that quantify objectives and enable the measurement of strategic performance.

The concept of CSFs was introduced for the first time by Daniel (1961) and later developed by Rockart (1979). Since then, the concept has become known in both academic as well as in business fields. Rockart (1979) attempted to develop a methodology to determine an organisation's CSFs, which he deemed crucial to its success. His theory, which was based on the previous work of Daniel (1961) and Anthony, Dearden and Vancil (1972), stated that every organisation will have its own CSFs depending on its structure, competitive strategy, industry position, geographical location, environment and time factors (Quesada and Sanchez, 2012).

According to Amberg et al., (2005), several definition for CSFs were published in last three decades, the most common ones are that developed by Pinto and Slevin (1987) defined CSFs as the factors which, if addressed, significantly improve project implementation chances. Also, Leidecker and Bruno (1984) defined CSFs as those characteristics, conditions or variables that, when properly sustained, maintained, or managed, can have a significant impact on the success of a firm competing in particular industry. Esteves (2004), however, argued that these definitions have limitation as they fail to address the comprehensive concept proposed by Rockart (1979), which seeks to identify an ideal match between environmental conditions and business characteristics for a particular company. Thus, Rockart's definition remains the best-known: *"the limited number of areas in which*

results, if they are satisfactory, will ensure successful competitive performance for the organization”.

Rockart’s original method focused on the individual feedback of managers as a technique to determine the CSFs. Boynton and Zmud (1984) disagreed with this theory, indicating three main weaknesses of the CSF method, namely that it is difficult to use, it introduces bias during the interview process, and the outcomes depend on the responses of the managers. Despite its limitations, however, there are strengths and opportunities in applying CSF, as it should eventually provide a better understanding of the situation under review. Boynton and Zmud (1984) acknowledge two of these key strengths: the CSF method generates user acceptance at the senior management level and it facilitates a structured, top-down analysis and/or planning process.

However, some studies were conducted in the field of PMS to identify the CSFs that may create the ideal situation for successful implementation of PMS. For instance, Kaplan and Norton (1992) described a procedure to define the performance measures and CSFs based on a company’s strategic objectives. Their procedure is called the balanced scoreboard procedure (BSP). The main advantage of the BSP is that it integrates CSF with strategic objectives simply. Kaplan and Norton (2002) later discussed the importance of linking the balanced scorecard to the organisation’s strategy as a key issue for success. They further indicated that their research on companies that used the balanced scorecard (BSC) revealed a consistent pattern of achieving successful alignment of their strategy to their business. They concluded that there are five common principles for strategy-focused organisations which support the successful implementation of the BSP management framework (Figure 2.6). These five principles are:

Principle 1: Translate the strategy to operational terms (strategy map, BSC)

Principle 2: Align the organisation to the strategy (barriers, common objectives)

Principle 3: Make the strategy everyone’s everyday job (communication, motivation, personal scorecards, incentives)

Principle 4: Make strategy a continuous process (link budget to strategy, analytics and information systems (IS) monitoring and reporting, management meetings)

Principle 5: Mobilise change through the executive leadership (ownership and active involvement, BSC is a change project not metrics, governance)

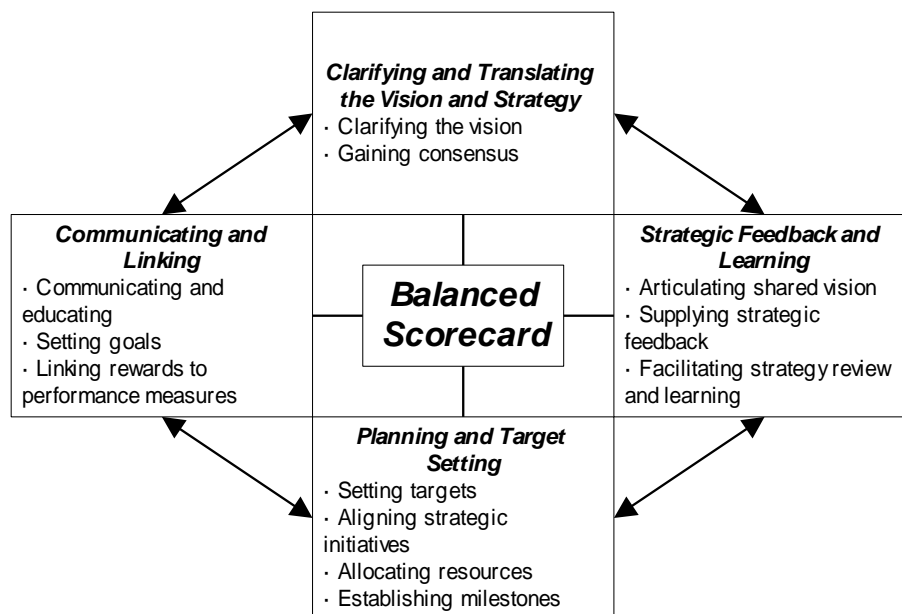


Figure 2.6: BSC implementation framework (source: Kaplan and Norton, 2002).

However, Kaplan and Norton (2002) concluded that having the scorecard is necessary but not sufficient to beat the odds against successful strategy implementation. The success of strategy can be achieved by having BSC as the central framework for a new performance management system. In their book, *The Strategy-Focused Organization*, the authors identified three classes of problems that prevent success:

Transitional issues: such as a break in the middle of project due to change of management or merger/acquisition issues.

Design failures: such as misalignment with strategy, measures that don't reflect the whole picture, absence of a link with operations/strategy.

Process failure: some of the most common causes of implementation failures are listed below:

1. lack of top management commitment and support
2. poor staff involvement
3. BSC implemented at top management, not cascaded down the organisation
4. projects that run for too long
5. BSC considered as a project and not an idea for change
6. inexperienced consultants
7. misuse of BSC

On the other hand, much research has been conducted in different parts of the world to understand CSFs in organisations and their impact on success. In some cases, it was specific research to find out the impact of CSFs on PMS implementation. For instance, in a questionnaire survey, conducted in June 2003 in Japan by the Nomura Research Institute Ltd. (NRI), about one-third of the 35 companies that responded to questions about the introduction of the BSC approach reported that they felt “*dissatisfied, as it left much to be desired*”. Therefore, unless appropriate measures are taken to correct these deficiencies, the concept may simply collapse under the weight of a growing number of failed cases and can be regarded as little more than a passing fad. The survey came with very important results about the major requirements for the successful introduction of the BSC. The most important CSFs suggested by the survey findings and analysis are:

1. commitment by top executives
2. clarifying the purpose behind introducing the BSC
3. securing awareness and understanding within the organisations in which the BSC will be introduced
4. compatibility with other systems and reforms
5. incentives provided through links with compensation
6. adequate preparatory period
7. data collection and analyses by utilising information systems

Similarly, in the UK, in the Bradford Health Action Zone, research by Radnor and Lovell (2003) took place to assess the use of a BSC system in National Health Service (NHS)

settings. The findings suggested many factors that may prevent the successful implementation of BSC, including:

1. non-clarity of PMS delivery and added value
2. resistance to change and suggestions for improving existing systems
3. BSC doesn't provide meaningful information, only an academic exercise
4. lack of flexibility to adapt in line with organisations' development
5. efforts don't equal the benefits; BSC will need more resources to implement
6. sophisticated; organisations are not ready for it yet
7. lack of top management and government support

Another study was conducted in the UK by Kennerley and Neely (2002) to investigate factors affecting the evolution of performance measures. They highlighted some barriers to PMS success (the order of these barriers does not reflect their importance):

1. the organisation's readiness for change
2. the availability of management time to reflect on measures
3. the lack of the necessary skills and human resources
4. the lack of flexibility of information systems to collect the required data
5. the acceptance of measurement throughout the organisation
6. culture – ad hoc measures, not integrated with the organisation's strategy and not used to manage business
7. lack of focus, too many measures
8. lack of proactive review process
9. lack of data analysis and use
10. people's resistance to measurement

CSFs were discussed in another piece of research conducted in the USA in the field of organisational change by Chrusciel and Field (2003), namely *From Critical Success Factors into Criteria for Performance Excellence*. Their research suggested a link between CSFs and organisation strategy to achieve success. They reviewed the most critical factors for success in an organisation and proposed the following as some of the most common CSFs for organisations:

1. **Top management support:** active and visible support from the management of the organisation, often in the form of a champion for the application
2. **User training:** clear demonstrations as to how to use an application is critical for success
3. **Planning and analysis:** critical evaluation of the gap between the current standing of the organisation and where it would like to be in the future. This can be achieved through the examination of all possible influencing variables
4. **Assessment:** evaluation of the effectiveness of change is essential
5. **Comprehensive communication:** critical communication of the change message to all levels throughout the organisation
6. **Organisational readiness to deal with change:** staff perceptions of organisational readiness to deal with change in terms of whether they will work to either undermine or facilitate a successful effort
7. **Perception of personal gain:** perception of how being associated with the change or process would provide any personal gain to an individual participant
8. **User involvement:** reality in which the ownership of the system is in the hands of the end-users.
9. **Information source:** reality in which data are current and readily available.

Ariyachandra and Frolick (2008) reviewed the CSF method and their focus was on using software to help implementing performance management in the organisation. The software developed is called Business Performance Management System (BPM); undoubtedly the software is a good tool that helps managing and reporting process of PM, but the successful implementation of the PM requires many other factors within the organisation.

However, Ariyachandra and Frolick (2008) tried to investigate further and identify the seeds of success. Thus, in their analysis to identify CSFs that help the successful implementation of BPM, they stated that the academic literature outlined many CSFs that an organisation should consider when going to implement BPM. They devised a table of CSFs that presents the result of a comprehensive assessment of the practitioner and academic literature to identify the most salient critical success factors for business

performance management. The researcher found that most of these CSFs are suitable and serving the purpose of successful implementation of PMS in general. Ariyachandra and Frolick highlighted that each of the factors described a unique criterion or strategy that would help successful implementation of BPM system:

1. Champion
2. Management of resistance
3. Management support
4. Sufficient resources
5. Team skills
6. User support
7. Effective communication
8. Clear link to business strategy
9. State of existing data management infrastructure
10. Evolutionary development methodology

The definitions of these important CSFs are summarised from the work of Ariyachandra and Frolick (2008):

1. Champion

The project champion actively supports and promotes the BPM project, often providing information, material resources and political support (Jensen and Sage, 2000). Usually a key person in the organisation supports the project, communicates with the staff, provides resources and material and manages political issues that might arise.

2. Management of resistance

Management of resistance is another factor that is critical for the success of a project. An effective PMS allows no one within the organisation to hide his/her performance or maintain silos of proprietary. Because a successful implementation of PMS can expose internal problems, it can be torpedoed by internal politics and resistance (Gruman, 2004). Various organisational groups may resist the implementation of true transparency and attempt to protect their own turfs of interest. Awareness of such resistance would enable the organisation to take corrective action early and deflect a major obstacle to implementation Ariyachandra and Frolick (2008).

3. Management support

Widespread support for the project from the upper management team is essential for the life of a BPM project (Griffin, 2004). Gaining consensus and buy-in from senior management early on in the effort can help establish legitimacy and visibility for the project. Leadership and strong support from the executive team can help subdue resistance and build a firm-wide shared vision. This commitment and support can sustain funding for the entirety of the project, as well as assist in the creation and communication of critical metrics of interest to assess performance management (Politano, 2007).

4. Sufficient resources

The right balance of sufficient resources is essential for the project's success.

5. Team skills

Teams with both strong process skills and technical skills are required. While most organisations possess individuals with strong technical experience and skills, they often lack individuals with business-process analysis skills. In order to understand and assess the key business processes within the organisation and translate them into meaningful metrics, the project requires a team of individuals skilled in business-process analysis. Also, they should have skills in building strategy maps and developing key performance indicators Ariyachandra and Frolick (2008).

6. User support

Ariyachandra and Frolick (2008) stated that project success is also affected by the extent to which users are involved in the development of the system and engaged in specific responsibilities and tasks related to the project. User participation and support ensure that users' requirements are accurately captured and communicated to the development team (Guimaraes and Lu, 1992). It also enables users to be part of the development process and gain a better understanding of and appreciation for the system. This is equivalent to staff involvement and commitment.

7. Effective communication

Facilitation of communication between a business unit and other business units leads to a mutual understanding of the organisation's strategic direction and goals. Past empirical studies also suggest that greater communication leads to a convergence in understanding between the various business units. Communication ensures that business units are integrated effectively within the organisation. It also promotes greater alignment between these business units, leading to a more successful development and execution of an organisational strategy (Luftman, 2003).

8. Clear link to business strategy

To be successful, a BPM initiative must have a clear link to business strategy. The purpose of a BPM implementation is to effectively formulate, modify and execute a business strategy in a continuous cycle (Frolick and Ariyachandra, 2008). Often organisations may implement metrics that are convenient or easily accessible. Such metrics may not be tied to a business strategy. An organisation with such a BPM solution may not be monitoring its true performance, making effective decisions and actions or modifying strategy to its best advantage. Effective communication and clear links to a business strategy are two closely related critical factors that influence the successful implementation of a BPM initiative.

9. State of existing data management infrastructure

The nature of the existing data management infrastructure plays a crucial role in the successful deployment of a BPM initiative. In many organisations, performance data tend to exist in various Excel spreadsheets (Gruman, 2004). Typically, BPM deployment builds on existing data repositories, data integration efforts and departmental systems. Consolidation of these dispersed silos of data into an integrated data repository that is a trusted, audited source of truth is by far the most difficult undertaking in deploying a successful BPM. According to Ariyachandra and Frolick (2008), when considering the nature of the existing data management infrastructure, the development team must assess the state of organisational data, as well as the existing data management technology.

10. Evolutionary development methodology

The development methodology used for system implementation influences the effectiveness of the system (Wixom and Watson, 2001). An evolutionary development methodology, implemented at several stages, is widely acknowledged as a key factor for system success (Houdeshel and Watson, 1987). Typically, most organisations start with financial performance management, as most of the required financial data and metrics are readily available (Gruman, 2004). Iteratively, organisations may then move to operational performance data and other areas that are more easily quantifiable (Schiff, 2007). Implementing a BPM solution iteratively in stages enables an organisation to gain quick wins and greater legitimacy for the overall BPM project. Awareness of each critical factor presented above enables the BPM development team to more readily face the challenges and issues that arise during the project (Ariyachandra and Frolick, 2008).

Another piece of research conducted at the University of the Punjab, Pakistan, by Ahmed Z. et al, (2011) about the comparative significance of the four perspectives of the balanced scorecard concluded that the main reason for the failure of the BSC was frequent regulatory changes. Furthermore, the authors gave four necessary conditions for the successful implementation of the BSC, namely:

1. Prompt feedback of PMS results
2. Involvement of the employees in all activities related to BSC
3. BSC is effective during time of organisational changes
4. Build BSC using the right parameters.

On the other hand, Richardson (2004) has offered the following six elements for BSC success:

1. Develop your business strategy
2. Involve the senior leadership in the development of the BSC
3. Develop your BSC according to the vision of your organisation and describe the vision of your BSC
4. Implement the BSC everywhere in your organisation

5. Communicate the objectives of the BSC to everyone and educate all of your employees about it
6. Implement your BSC in such a way that it can be adjusted automatically in accordance with day-to-day changes.

Ho and McKay (2002) conducted a study of a bank that introduced BSC and after three and a half years replaced it with a compensation plan programme. The bank found four difficulties in the application of BSC:

1. Different interpretation of the BSC by different managers
2. Branch managers thought it to be ineffective because it created hurdles for the employees to get bonuses
3. BSC did not ensure good customer service
4. It required additional time from the management.

For better results on implementation of a PMS, Charan et al. (2008) suggested that top management should focus on improving the high driving power enablers such as:

1. Awareness about PMS
2. Commitment by the top management
3. Consistency with strategic goals
4. Funding for PMS implementation
5. Effective information systems
6. Employees' commitment
7. Appropriate performance metrics.

Other case studies were undertaken by Bourne et al. (2003) to identify the barriers to implementation of PMS. They identified four barriers:

1. Vision and strategy are not actionable
2. Strategy is not linked to department, team and individual goals
3. Strategy is not linked to resource allocation
4. Feedback is tactical and not strategic.

As a result of these findings, they suggested three important CSFs for the success of a PMS implementation, namely:

1. Developing information architecture with supporting technology
2. Aligning incentives with the new measurement system
3. The lead given by the CEO.

Research by Neely et al. (2000), Neely, (2005) concluded that the use of structured PM minimises or eliminates many of the implementation and maintenance problems highlighted in the literature; hence, the key factors for the successful implementation of PMS are:

1. The top management's full commitment to the PM
2. Availability of appropriate resources and the necessary level of human effort
3. Information technology (IT) support
4. The need for the PM system across subsidiary companies should be the same.

Moreover, the results of a case study conducted by Kennerley and Neely (2003) emphasise the importance of having a systematic process in place to manage continuous improvement in the PMS. They also argue that PMS success depends on good design that takes the following factors into account:

- Process: existence of a process for reviewing, modifying and deploying measures
- People: the availability of the required skills to use, reflect on and deploy measures
- Systems: the availability of flexible systems that enable the collection, analysis and reporting of appropriate data
- Culture: the existence of a strong measurement culture within the organisation.

Summary

As the objective of this study is identify the specific CSFs for the successful implementation of PMSs in UAE government organisations, the approach was to move from the general to the specific. This study progressed in two phases. The first phase depended on a literature review on PMS CSFs, the object of which was to develop a preliminary list of the most common CSFs for PMS successful implementation in general. The second phase was specific research in the form of field study, intended to identify the CSFs that have major impact on the successful implementation of PMS in UAE government organisations.

The outcome of phase one, the list of the most common CSFs found in the literature, was used in the field study, enabling the researcher to proceed with prior knowledge about the subject and to design the interviews. The case study approach was used to identify the specific CSFs relative to and important for the successful implementation of PMSs in UAE government organisations. It was expected that the outcome of the research would reflect the culture and environment within the organisations studied.

Many previous studies were critically reviewed in the literature: see Section 2.6 and Section 2.7. The criteria used to select the list of CSFs were the emphasis given to them in the literature reviewed and the frequency with which they were mentioned. The CSFs that were most discussed are summarised in Table 2.3 and Table 2.4. Figure 2.7 shows the frequency with which individual CSFs were discussed in literature. Based on the previous discussion, 13 CSFs were considered as potential CSFs for the field study investigation. More details about this list of CSFs are presented in the next section.

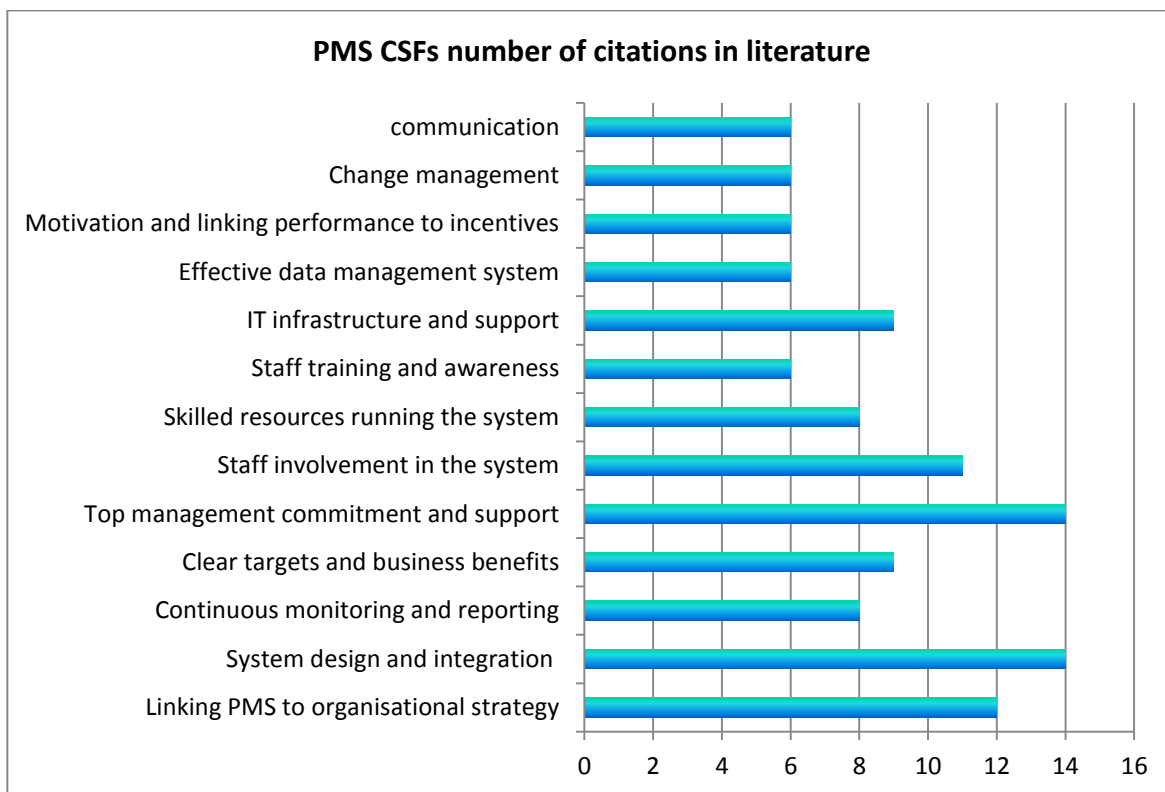


Figure 2.7: Frequency of CSF citations in literature review

2.7 CRITICAL SUCCESSFUL FACTORS FOR THE UAE CONTEXT

Based on the previous literature review, the researcher has developed a preliminary list of the CSFs most common discussed in the literature and most commonly deemed necessary for the successful implementation of PMS. A summary of the literature review is shown in Table 2.3 and Table 2.4. This list will be used in the present PhD research as the foundation for detailed investigation into case studies. The research will assess their impact and value to PMS implementation in UAE government organisations. Therefore, it is anticipated that the study will yield a short list of CSFs that are specific to UAE government organisations. Consideration of these CSFs may enable UAE organisations to better use their resources by focusing on the areas that are most likely to have a greater impact on PMS success. The researcher has classified the CSFs into four categories, as shown in Table 2.2.

CSF	Group
1. Linking PMS to organisational strategy 2. System design and integration 3. Continuous monitoring and reporting	PMS design and implementation
4. Clear targets and business benefits 5. Top management commitment and support 6. Staff involvement in the system 7. Skilled resources running the system 8. Staff training and awareness	People
9. IT infrastructure and support	Technology
10. Effective data management system 11. Motivation and linking performance to incentives 12. Change management 13. Role of effective communication	Processes

Table 2.2: CSFs identified before the field research, classified into four groups.

A brief but detailed description of these CSFs and the researcher's selection criteria follows.

1. Linking PMS to organisational strategy

According to Norton and Kaplan (2002), linking a performance management system (PMS) to an organisation's strategy is the most important factor in achieving successful implementation of the system. Moreover, Kaplan and Norton (2001) stated that employees should stick with strategy and use the PMS as a tool to ensure that all of the objectives and

measures inherent in it are derived from the organisation's vision and resultant strategy. Successful organisations achieve success through strong alignment of their strategy to their business (Ariyachandra and Frolick, 2008).

Research has shown that PMSs can be useful in implementing strategy and providing such alignment (Gimbert et al., 2010). Several scholars have proposed the introduction of a PMS as a means to implement strategy, promote organisational learning, align behaviours and support decision-making processes (Bourne et al., 2000; Kaplan and Norton, 2008; Neely, 1999). Richardson (2004) stated that it is essential to develop a balanced scorecard according to the vision of the organisation.

Not only is it vital to align all levels of the organisation to its overall strategy and objectives, but also all goals must be cascaded throughout the organisation. Moreover, linking people's goals to the organisational strategy creates commitment and understanding of how everyone's actions contribute to the organisation's business and success.

The Abu Dhabi Executive Council, the highest governing body in the country, set targets for all entities in the government to align their strategic efforts to the Abu Dhabi Vision 2030. To achieve this, ADWEA (Abu Dhabi Water & Electricity Authority) has set up a project with the aim of completely transforming their business into a more efficient, customer-focused, performance-oriented organisation while simultaneously enabling the delivery of the Abu Dhabi 2030 Vision. The ADWEA Board of Management took the decision to adopt the Balanced Scorecard (BSC), the same framework as is used by the Abu Dhabi Executive Council, as the best framework for performance management and executing strategy. BSC was viewed as a tool for achieving a balance between risk, cost and performance while meeting the needs of the wide range of stakeholders, both in the immediate and the long term. This project is called ADWEA Strategic Transformation (ASTRO). All organisations in this study joined ASTRO, which was launched in 2009 and has been instrumental in aligning the group's companies around the ADWEA strategy, although it was initially designed to establish specific priorities, key performance indicators and initiatives to measure an organisation's performance. The overall aim of the ASTRO project was to build and develop a strategy execution framework for the purpose of

boosting performance and enhancing alignment, interaction and collaboration with ADWEA and its group of companies. However, at a basic level, it facilitates the translation of the strategy into operational terms and allows the organisation to monitor its level of execution. (<http://www.adwea.ae/en/press/press-releases/business-planning-and-performance-organizes-15th-astro-training.aspx>.)

2. PMS design and integration

Successful PMS implementation largely depends on the appropriateness of its design (Rantanen et al., 2007). Therefore, a lack of focus and the use of too many measures in the design increase the probability that PMS will fail (Kennerley and Neely, 2002). One of the common problems in PMS implementation occurs when the system at the top does not cascade down (Kaplan and Norton, 2000). Similarly, Chrusciel and Field (2003) stated that one of the causes of failure in implementing PMS is using ad hoc measures not integrated with organisational strategy and not used to manage business. Thus, it is obvious that one of the causes of failure is creating complex systems, with large numbers of KPIs and measures. When the system becomes too big it starts to lack focus and becomes useless. The secret of success is to keep the PMS simple and straightforward so that it is relevant to strategic objectives.

Ariyachandra and Frolick (2008) emphasised the importance of having an evolutionary development methodology for the system, without which successful implementation would be impossible. de Waal (2002) also found that it is vital that managers agree on changes in the system to develop the right KPIs to serve the purpose. Pawar and Driva (1999) observed that, for any system to be successful, it must be user-friendly. Other studies have focused on staff understanding of the objective of the PMS: if staff failed to understand the purpose of the PMS and did not see meaningful results, they often felt distressed and frustrated (Radnor and McGuire, 2004).

Thus, in the design of an effective PMS, business objectives and outcomes must be clear and measurable. The measures should be selected to produce the actions that will in turn

deliver the results that the organisation is looking for. PMS also has to be a strategic system and not an operational day-to-day system. Moreover, it has to be flexible enough to change and capable of being modified at any time. It must be cascaded to all levels, and at the lower levels it can be designed to include some operational functions that serve strategic objectives. Thus, it should be a system that encourages innovation, creativity and empowerment. Again, the implementation stage should involve an adequate amount of training and education.

3. Continuous monitoring and reporting analysis

Continuous monitoring and reporting lend value to a PMS, improving profitability, productivity, return on investment and better customer satisfaction (Martinez and Kennerley, 2005). Moreover, performance monitoring and reporting are crucial for maintaining a culture of transparency and high performance in the organisation, providing a focus on the required outcome to support decision making process (de Waal, 2002).

In order to manage performance, the organisation usually builds key performance indicators (KPIs), which are used to monitor the progress of initiatives and give an indication about business performance. This process is called continuous monitoring and reporting of the PMS. It is one of the functions that keeps PMS alive and it motivates employees to get involved with the system. Monitoring and reporting depend on regular reporting, review of such reports by core teams before they are consolidated into the senior management report, review and monitoring by senior management, actions taken as a result of the review and ownership of the process. Continuous monitoring and reporting also provide the value for which PMS is built, such as improving profitability, productivity, return on assets and better customer satisfaction.

A proactive review process helps in detecting unexpected variation at an early stage (Kennerley and Neely, 2002). To achieve effective monitoring and reporting, it is essential to have a department in the business that looks after this function, specifically a quality control department (Kaplan and Norton, 2000). Managers too need to be involved in analysis of PMS results and in using the results to improve the business. Kaplan and

Norton (1992) consider that analytics and information system monitoring and reporting are the cornerstone of a PMS.

4. Clear targets and business benefits

A study by Locke and Latham (2002) stressed the importance of setting clear targets in order to support key functions that drive business performance and to assist employees to understand the purpose behind the organisation's business in order to enhance productivity and efficiency (de Waal, 2002). With regard to a PMS, all staff must understand the business objectives of the system (Kaplan and Norton, 1996b), which can be achieved by explaining the expected benefits on all levels. Target setting, either at organisation level or at staff level, is an important part of PMS development (Blasini and Leist, 2013).

Targets should be aligned with organisational strategy and objectives to be effective. According to Kaplan and Norton (1996a), it is vital that the organisation believes in PMS and all staff understand the business objectives of the system. If there is a perceived lack of benefit, PMS is unlikely to be implemented successfully (Bourne et al., 2002).

Additionally, lack of clarity and poor understanding of the value of a PMS are major causes of failure in its implementation (Radnor and Lovell, 2003). Therefore, targets must be simple and clear and communicated to staff at all levels. It is very important also for employees to understand the purpose of any change (de Waal, 2002). Balanced score cards (BSC) can only be introduced successfully if staff clearly understand their purpose (Morisawa and Kurosaki.2003).

5. Top management commitment and support

The success of a PMS or any other major project in the organisation largely depends on top management commitment and support (Richardson, 2004). Experience has repeatedly shown that the single most important condition for success is the ownership and active involvement of the executive team (Kaplan and Norton, 2001). Furthermore, top management must make the PMS a priority (Chrusciel and Field, 2003). The dedication of top management and the benefits that are perceived to flow from a performance

measurement system are the two main factors in its successful implementation (Bourne et al., 2002). There is rapidly growing literature on the importance of involving the senior leadership in the process of developing large projects such as the Balanced Scorecard (Richardson, 2004).

Previous studies confirmed that one of the common problems in business improvement projects is the limited involvement of senior management (Kennerley and Neely, 2002), which is also one of the main reasons for PMS failure (Kaplan and Norton, 2000). Weak involvement and engagement on the part of top management during implementation cause the project to face difficulties at all stages. Another issue highlighted in previous studies was the importance of the availability of management time to review the results (Kennerley and Neely, 2002).

In addition, according to Radnor and McGuire (2004), one of the challenges facing a PMS is a lack of clarity of vision and leadership by senior management to position the PMS effectively within the department's overall performance improvement agenda. Much of the literature stresses the importance of gaining consensus and buy-in from senior management early on, in the effort to establish legitimacy and visibility for the project (Ariyachandra and Frolick, 2008). Active and visible championing of the system on the part of the leadership is essential (Chrusciel and Field, 2003). Top management has a major role to play in setting up and participating in project committees and in formulating and establishing policies and objectives. In addition, their responsibility extends to communicating the system's objectives and goals to the organisation, ensuring that the system aligned with organisation strategy, overseeing implementation at all levels of the organisation and evaluating progress in light of results achieved, while providing all necessary support, training and resources. Management commitment needs to be demonstrated at all levels within the organisation in order to promote the culture of performance management (Morisawa and Kurosaki, 2003).

6. Staff involvement in the system

Staff involvement in PMS development and implementation is considered a critical factor in driving continuous improvement and high performance. According to Radnor, and McGuire (2004), staff involvement brings many benefits to the organisation: it increases employee productivity for all levels of employees, including the low-skilled (Jones and Kauhanen, 2010), it improves organisational decision-making capability (Apostolou, 2000), it creates a positive work attitude (Yadav, and Dabhade, 2013) and it leads to employee empowerment, job satisfaction, creativity, commitment, and motivation, as well as intent to stay (Apostolou, 2000; Zhang and Bartol, 2010).

Involving staff in strategic initiatives such as PMS development and implementation improves the chances of their success (Sadikoglu and Zehir, 2010; Olsen et al., 2007), and lack of staff involvement is one of the reasons for PMS failure (Kaplan, 2000). Indeed, without such involvement and input, employees may feel disengaged and frustrated, whereas participation provides staff with a sense of belonging and empowerment (Ongori, 2009). The involvement in decision making may take different forms, for instance, staff may take part in decision making for operational issues related to their daily work and their own department's functions, while senior management take the strategic decisions that set the direction for the organisation.

Among the many benefits to the organisation of staff involvement (Jones and Kauhanen, 2010), it increases employee productivity, including the productivity of low-skilled employees who do routine tasks, job satisfaction, creativity, commitment and motivation (Apostolou, 2000), and it puts ownership of the system in the hands of the end-users –staff in this case- (Chrusciel and Field (2003). When we speak of staff, we include managers, who need to understand the meaning of KPIs to ensure successful performance management (de Waal, 2002). Staff involvement requires proper awareness and training (Morisawa and Kurosaki.2003), without which employees will see barriers in using the system, and will try to avoid doing so.

7. Staff skills and competencies

In today's organisations, skilled staff are the human assets and the essence of its competitive advantage (Maltz et al, 2003). Pulakos and O'Leary (2011) anticipate that human resource competencies will increasingly become the focus of strategic intervention and must change substantially to respond to business challenges. In addition, there are personal characteristics and attributes that impact on productivity and performance, such as beliefs, motives, values, traits, habits and social roles, as well as the environment that enables a person to deliver.

According to Kennerley and Neely (2002), the lack of necessary skills and human resources has a negative impact on the success of PMS implementation. The spectrum of competencies required to run PMS encompasses knowledge, expertise, skills, intelligence and aptitude, as well as personal and behavioural skills. Radnor and Lovell (2003), in a study of nine managers, found that deficient human resources can cause PMS to fail. By the same token, sufficient resources and team skills are essential for success (Ariyachandra and Frolick, 2008).

When managing a project such as PMS, it is fundamental to determine how much work is required for the given tasks. A PMS is a strategic project, so it needs huge amounts of effort and time to be developed and implemented (Bourne et al., 2002). Therefore, using the professional expertise of external consultants to initiate a new programme such as a PMS is often the right decision, especially when existing teams lack such skills. Although a good consultant can add a significant amount of value to the project, the wrong consultant, one who is inexperienced or insufficiently dedicated, can cause the whole project to fail (Kaplan, 2000).

8. Staff training and awareness

In order for staff to effectively maximise every opportunity for business success, they need to be aware of any changes, either internal or external, to the organisation that could influence performance (Kennerley and Neely, 2002; Kaplan and Norton, 1992). People's appreciation and acceptance of the system or, conversely, resistance to its use, are strongly linked to their level of awareness and understanding of the benefits of the system (Radnor

and Lovell, 2003). Hence, continuous training and awareness building are fundamental for the introduction of new systems such as PMS. Specifically, training on to how to use a new application is critical for its successful utilisation (Chrusciel and Field 2002).

There needs to be an effective strategy for staff development and training if a system is to succeed (Morisawa and Kurosaki, 2003). This strategy should aim at helping staff to improve their skills so as to contribute to overall performance improvement. Moreover, staff training enhances capacity, job loyalty, job satisfaction, motivation and productivity (Sageer et al., 2012). An adequate preparatory period is needed to introduce PMS to an organisation (Morisawa and Kurosaki, 2003), and the organisation must pay careful attention to the quality of training provided. Good quality training will yield heavy dividends for the employer in increased productivity, knowledge, loyalty and contribution (Phillips, 2003).

9. IT infrastructure and support

Information technology (IT) plays an increasingly vital role in the delivery of business processes (Melville et al., 2004). In spite of enormous investments in enterprise initiatives, many organisations still have difficulty in finding the information they need to support decision making (Poon and Wagner, 2001). In many cases, simple spreadsheets are still used to perform key business activities such as planning, budgeting and forecasting. This means that leaders are not easily able to gather, analyse and act on information to deliver high-value strategic insights. Therefore, with the growing importance of information management, information technology has become a crucial enabler (Melville et al., 2004).

Previous studies reported that performance management success depended on strong IT and business alignment and effective IT infrastructure development (Ariyachandra and Frolick, 2008). IT support is a key factor in integrating different systems in an organisation. One of the main reasons for the success or failure of a PMS is the degree of development of an organisation's information system (Bierbusse and Siesfeld, 1997), which assists in linking strategy, objectives, processes, activities and measures. Intelligent business software

supports the alignment and centralisation of the database and provides advanced analytical and business intelligence capabilities. Information systems are needed to support data collection and analysis (Morisawa and Kurosaki, 2003) and in turn to enable decision making and performance management.

Moreover, information systems need to be flexible in order to collect the required data (Kennerley and Neely, 2002), and ease of data accessibility is essential (Bourne et al., 2002). IT helps the business to improve performance and achieve greater success by allowing the organisation to capture, manage, preserve, store and deliver the right information to the right people at the right time, which is the most important outcome of information management. When the balanced scorecard is used, it must be implemented in such a way that it can be adjusted automatically in accordance with day-to-day changes (Richardson, 2004). Poor utilisation of powerful IT applications results in a huge waste of investment. Several studies have emphasised the use of specific IT governance mechanisms that can help organisations manage their performance (Balogun and Hailey, 2004; Neely et al., 2008; Micheli et al., 2011).

10. Effective data management

Data or processed information are at the heart of every organisation. It is increasingly becoming crucial to store and document data in ways that are easy for retrieval and convenient for interpretation. Effective data management, which includes easy input, storage, interpretation and retrieval of data, benefits any organisation as well as enhancing prospects for the long-term preservation and re-use of the data (Borer et al., 2009). Furthermore, the data management infrastructure and high quality data contribute critically to the successful deployment of a performance management system (Gruman, 2004), which enables informed decisions to be made and actions to be taken, because it quantifies the efficiency and effectiveness of past actions through the acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data (Neely, 1998).

An essential prerequisite for decision making is accurate, complete, consistent, relevant and reliable data, received on time. Information quality is one of the most important success factors for applying PM (Blasini and Leist, 2013). The organisation has to secure appropriate policies and practices in relation to data quality, collect the right data and build a proper database that supports the organisation's strategy and objectives. Moreover, the organisation should have the right tools and applications to support data management (i.e. information technology and software packages), and use the data for analysis and for comprehensible reporting.

Many issues affect the value of data, such as its availability when needed. PMS may fail as a result of the lack of necessary information (Dias-Sardinha and Reijnders, 2005). Equally, previous studies have emphasised the importance of single information sources yielding current and readily available data (Chrusciel and Field, 2003). Further, managers must be able to trust performance information (de Waal, 2002).

11. Motivation and linking performance to incentives

Motivation is the driving force behind people's actions (Silver, 2013). Motivated employees are more creative and productive than unmotivated employees; they enjoy their work more and experience less stress. Staff motivation is a key element in business success (Al-Mashari and Zairi, 1999). By communicating strategy in terms of clear objectives and tasks, every employee gains an understanding of how his/her actions support the "big picture". A PMS will not be successfully implemented and utilised unless staff are motivated to adopt it.

Bourne et al. (2002) found that if staff do not see the benefit of proceeding with a performance measurement system, its success is greatly at risk. Drake et al. (2007) cited a prominent model put forth by Spreitzer (1995), which suggested that two major components positively affect employees' feelings of empowerment: performance feedback and performance-based reward systems. Motivating employees requires linking employee

incentives and compensation to performance in order to create commitment (Blasini and Leist, 2013; Morisawa and Kurosaki, 2003).

12. Change management

The Arab culture has certain unique characteristics that impact directly on a business, as discussed in this section. Arabs often resist change and reject initiatives that are not Arab-originated (El Araby et al., 2006). “High Power Distance” and “High Uncertainty Avoidance” are typical traits (Hofstede et al., 2003), which are possible obstacles to successful implementation of a PMS. Power distance is defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally. Uncertainty Avoidance is the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these. Thus, there is a need to utilise change management techniques to overcome this problem, introducing new ways of doing things and new ways of seeing themselves, their roles and their interactions with others inside and outside the organisation (Sinclair, 1994). Change management helps organisations to overcome problems and change from an undesirable state into a desirable one (Ragsdell, 2000).

As the change in the organisation affects everyone from top management to individuals in the lowest grades, it is the responsibility of top management to try to understand all impacts of the change on the staff and solve all problems that may occur as a result of the change (Sinclair, 1994). Change management has an important role in supporting PMS; thus, Kaplan and Norton (2000) pointed out that it is essential for staff to consider PMS as an idea for change and not a project.

Acceptance of measurement throughout the organisation and the organisation’s readiness for change have been identified as CSFs for PMS implementation (Kennerley and Neely, 2002). Research by Bourne et al. (2002) found that the personal consequences of applying performance measurement are a common reason for its failure. This means that if

employees see PMS as a threat to themselves, they resist it. Therefore, tackling the roots of resistance and managing it properly will have a great impact on the change management process (Ariyachandra and Frolick, 2008).

13. Role of effective communication

Communication is one of the most critical factors for successfully implementing a PMS (Chrusciel and Field, 2003). Neely et al. (2005) observe that the factor “communication” is one of the most cited in the literature about PMS. They note (pp. 1228-1263) that “*the effectiveness of performance management heavily depends on the communication strategy to facilitate buy-in from the people in the organisation*”. Moreover, effective communication ensures better awareness and understanding, which reduces resistance to change and fear of a new system, creating a strong culture favourable to PMS implementation and building a positive momentum for it (Malina and Selto, 2001).

Multiple communication vehicles are available, such as workshops, presentations, training sessions, intranet, brochures, newsletters, emails, posters, handbooks, letters from the chairman, videos and question and answer sessions, all of which convey and explain the benefits of using a performance management system. Moreover, facilitation of communication between business units leads to a mutual understanding of the organisation’s strategic direction and goals and a convergence in understanding between the units. Communication ensures that business units are integrated effectively within the organisation and promotes greater alignment between them, leading to more successful development and execution of an organisational strategy (Luftman, 2003).

2.8 POTENTIAL CSF FRAMEWORK FOR SUCCESSFUL PMS IMPLEMENTATION

In addition to this research objective to identify the CSFs that vital for successful PMS implementation in UAE government organisations. This research aims to develop a framework for the facilitation and implementation of organisation-wide change, such as a performance management system (PMS). Business intelligence (BI) systems are one type of system capable of affecting the performance of an organisation as a whole. BI refers to technologies, tools and practices for collecting, integrating, analysing and presenting large volumes of information to enable better decision making (Dayal et al., 2009). BI applications are used to support management in measuring company performance and making appropriate decisions (Daniels et al., 2004). Many leading organisations use BI as one of the principal tools to support decision-making and improved business performance. Although BI functions are limited to data management and analysis, using these functions effectively requires organisations to supply data and support. Similar to PMS, it is a prerequisite for BI that all business functions and elements within the entire organisation provide sufficient support to meet the new requirements.

Because BI systems are the technologies, applications, and processes for gathering, storing, accessing and analysing data to help users to make better decisions (Davenport et al., 2010; Wixom and Watson, 2010), BI systems support decision- making, information analysis, knowledge management, and human/computer interaction within the organisation (O'Brien and Marakas, 2007). According to Wells (2008), BI is the capability of an organization to manage and solve problems, innovate and think in abstract ways in order to increase organizational knowledge, and provide the information needed to support decision-making processes and the achievement of business goals.

PMS success and IT project success are closely related. IT applications are usually both the enablers and facilitators of changes identified during PMS projects (Attaran, 2004; Hung, 2006; Groznik et al., 2008; Trkman et al., 2007). Successful implementation of a BI system is not a conventional application based on an IT project; rather, it shares similar characteristics with other infrastructural projects, such as the implementation of an

enterprise resourcing planning system (Adamala and Cidrin, 2011). Therefore, there are many common characteristics between BI and PMS, such as their use in the context of change projects and their interaction with various organisational elements, such as processes, technology, people and infrastructure. Also, both systems depend heavily on data management and data quality to provide the bases for decision-making. Moreover, both types of system require organisation-wide change management and cooperation among various departments.

In summary, there are clear similarities between BI and PMS implementation; for instance, both systems are change projects aimed at improving business performance and supporting decision-making. Moreover, both are dependent on data and other information to produce results. Additionally, neither are simple activities entailing the mere purchase of a combination of software and hardware; rather, they are complex undertakings requiring appropriate infrastructure and resources over a lengthy period of time (Bourne et al., 2002, Radnor and Lovell, 2003, Yeoh and Koronios, 2010).

2.8.1 Usages of Frameworks

Application of frameworks for managing organisation-wide changes is not a new phenomenon. Several models of the critical success factors (CSFs) needed for successful implementation of BI systems within the organisation have been proposed in the literature (Delone and McLean, 1992; 2003; Hwang and Xu, 2008; Wixom and Watson, 2001 and Yeoh and Koronios, 2010). This study attempts to develop a framework based on critical success factors that will enable successful implementation of PMS in UAE government organisations. In doing so, this study examines existing frameworks available for business intelligence and their suitability for use in PMS implementation. This study intends to modify BI-based frameworks to develop new frameworks for CSF-based PMS. The proposed theoretical framework based on CSF will assist organisations in implementing the PMS in a more systematic manner and with less risk of failure during execution. The proposed framework will identify and highlight the CSFs that exert the greatest influence over the successful implementation of a PMS. As there is a lack in the literature of PMS success models, this study investigates possible models for the success of IT projects,

especially BI projects. This study finds that BI implementation is useful in this context in two ways. First, it studied the impact on organisations of various factors resulting from changes related to BI implementation. Second, the study resulted in the development of a framework based on CSFs for BI implementation. An analysis of several successful frameworks for BI implementation was used as a basis for the development of a framework for managing organisation-wide change resulting from PMS implementation in UAE. The following section will briefly examine the characteristics of each model.

2.8.2 The Delone and Mclean (1992, 2003) Framework

The Delone and McLean (1992, 2003) framework is one of the most frequently cited frameworks in journals and articles in the field of information system success. Their original framework (Delone and McLean, 1992) has been widely used in the academic world and has been reviewed and updated as a result of the feedback and subsequent research, resulting in an improved framework (Delone and McLean, 2003). The proposed framework consists of two parts: the success targets (system use, user satisfaction and net benefits) and the critical success factors encompassed (information quality, system quality and service quality). The relations between the success targets and success factors are shown in the model in Figure 2.8

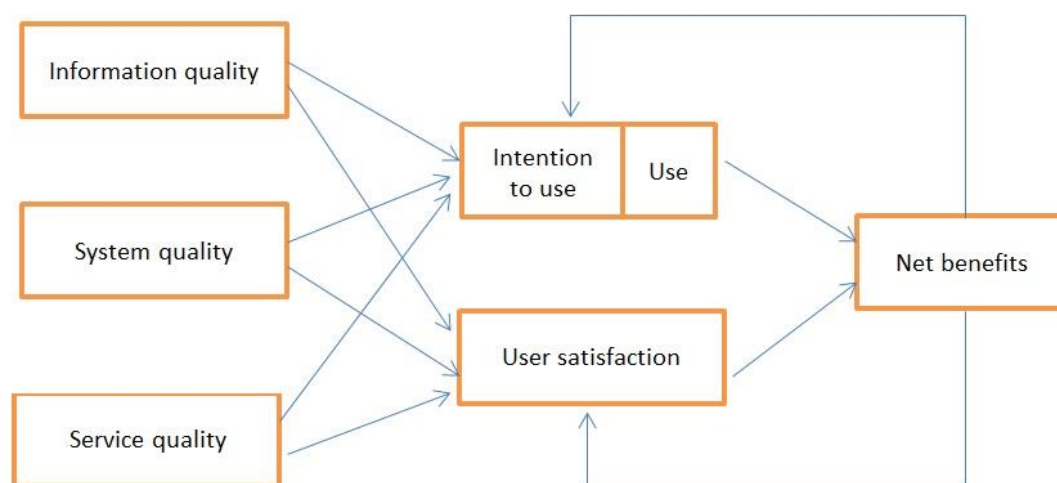


Figure 2.8: The Delone & McLean model for IS success (Delone & McLean, 2003)

According to Adamala and Cidrin (2011), one major drawback of this framework is its concentration on technology. They asserted that the findings of their research indicate that the success of BI initiatives relies on numerous factors that are dependent on factors within the management domain rather than dependent on technological factors. Therefore, this weakness indicates that further improvement on the model is necessary for it to be successful with more complex systems and applications. Another gap identified by Adamala and Cidrin (2011) in Delone and McLean's framework is its failure to propose any specific measurement methods. Moreover, the model does not provide definitions of the variables used, leaving that to the users. However, although this model has some drawbacks, its value lies in its attempt to discern a relationship between critical success factors and success targets.

2.8.3 The Hwang & Xu, (2008) Framework

Hwang and Xu (2008) developed the model shown in Figure 2.9. Hwang and Xu (2008) were very reliant in the development of their model on the model of IS success developed by Delone and McLean (1992; 2003). However, it is clear that they tried to expand the previous model and cover more factors rather than focusing exclusively on technical factors. Their primary success factors are three groups, namely operational factors, economic factors and technical factors. The outcome of both operational and economic factors influences the system quality, while the system quality is the main contributor to information quality, in line with contributions from the various technical factors. Individual benefits from the system strongly depend upon the information quality, while the organisation's benefits are achieved if the system succeeds in satisfying its original requirements.

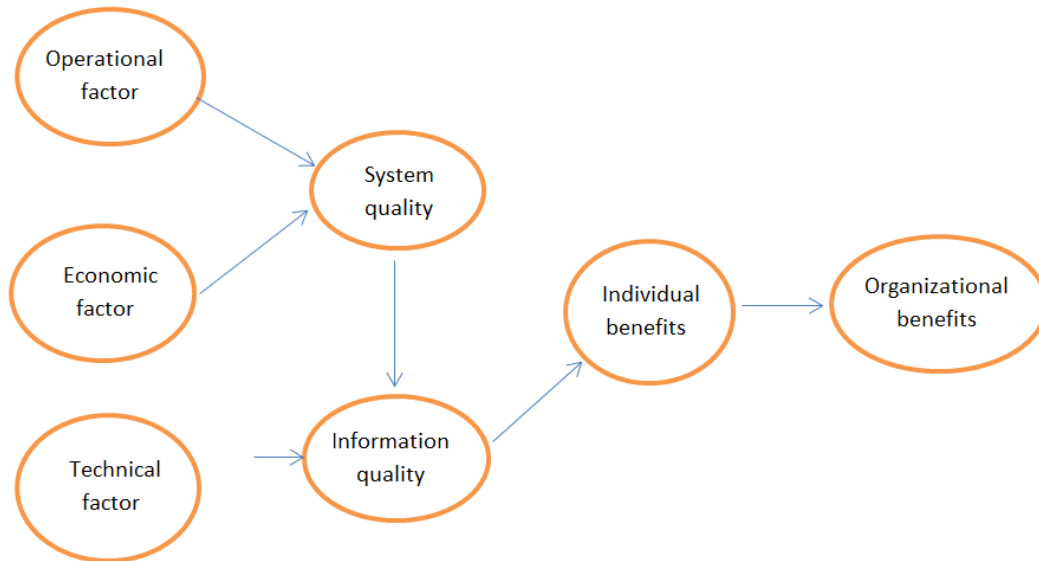


Figure 2.9: The Hwang & Xu model for data warehouse success (2008)

According to Adamala and Cidrin (2011), as a result of the way the model was constructed, it is difficult to compare whether technical or non-technical factors play a major role in IS success. One of the drawbacks of the Hwang and Xu model is its lack of any objective method for the measurement of CSFs.

2.8.4 The Wixom & Watson (2001) Framework

Wixom and Watson (2001) developed a more complex framework for managing BI implementation-related change. Their model consists of three main stages, or implementation factors, which lead to implementation success and thus to system success. Figure 2.10 shows the statistical model using partial least squares regression.

Wixom and Watson (2001) also rely on the IS success model created by Delone and McLean (1992), which defines system success using a structure of proxy variables, such as data and system quality and benefits; this model encompasses technical and non-technical factors influencing data warehouse implementation success (Adamala and Cidrin, 2011). However, the design of the Wixom and Watson model does not provide criteria for measuring the impact of technical vs. non-technical factors. Thus, it is not possible to use the model to assess the criticality of different CSFs.

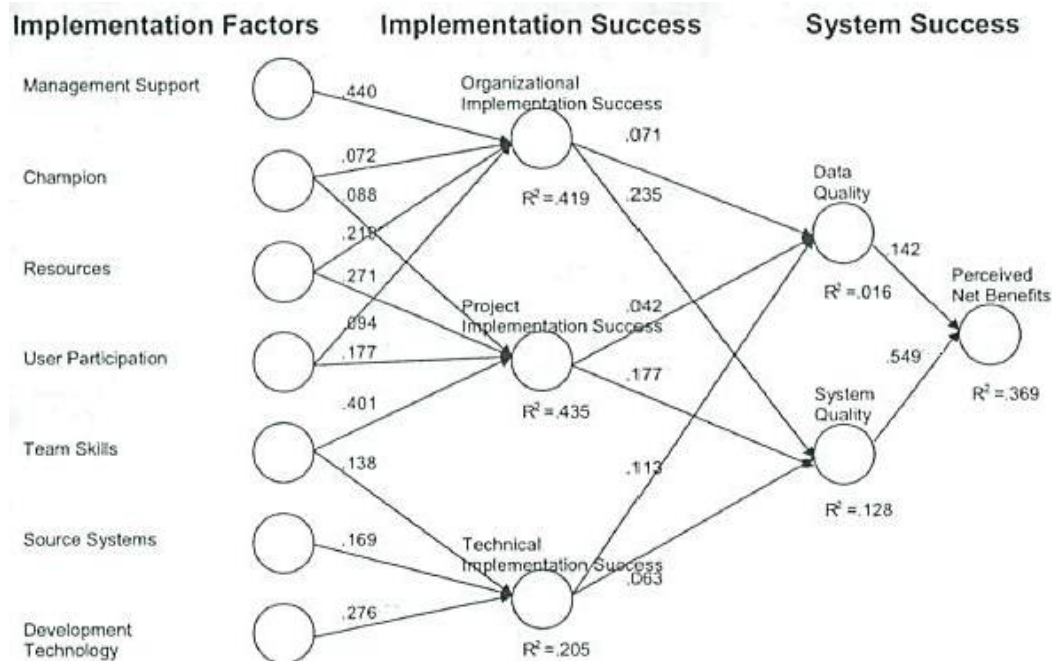


Figure 2.10: The Wixom & Watson statistical model of DW success (Wixom & Watson, 2001)

This model grouped critical success factors into three categories; namely, organization (vision and business case-related factors and management and championship-related factors), process (team-related factors, project management- and methodology-related factors and change management-related factors) and technology (data-related factors and infrastructure-related factors). In addition, these models highlighted other external performance factors, such as business infrastructure performance, which includes system quality, information quality and system use, and process performance, which encompasses project management, budgets and time schedules.

Some authors classify CSFs for BI in the dimensions of technical (Wixom and Watson, 2001), personal, educational, and business (Olszak and Ziemba, 2012). Others have proposed different categories, such as organization, environment, and project planning (Hwang, 2004). Yeoh and Koronios (2010) used the dimensions proposed by Wixom and Watson (2001), which classify BI CSFs into three dimensions: organisation, process and technology.

2.8.5 The Yeoh and Koronios (2010) Model

Yeoh and Koronios (2010) conducted a study that attempted to develop a framework for business intelligence (BI) systems implementation. Their framework is based on identification of critical success factors and assessing their relationship as it relates to managing change related to BI implementation. The motivation of the empirical research conducted by Yeoh and Koronios (2010) was to shed more light on the CSFs influencing the implementation of BI systems. They believe that the understanding of these CSFs enables BI stakeholders to optimise their scarce resources and efforts by focusing on the significant factors that are most likely to aid successful system implementation (Yeoh and Koronios, 2010). Their research utilized a two-stage qualitative approach, starting with the Delphi method, to conduct three rounds of studies. Next, the researchers examined the framework and the associated CSFs through a series of case studies. The empirical findings of their study substantiate the construct and applicability of the framework and indicate that organisations addressing the CSFs in the implementation of BI are more likely to achieve favourable results.

However, Yeoh and Koronios (2010) also proposed a framework for BI implementation of CSFs (Figure 2.11), and their model used some of the CSFs proposed by Delone and McLean (1992). In addition, they used the grouping suggested by Wixom and Watson (2001) to divide CSFs into three broad categories, namely, organization (vision and business factors, management and championship factors), process (team, project management change management and methodology factors) and technology (data and infrastructure factors). The contribution of the study conducted by Wixom and Watson (2001) is its new way of explaining how the implementation of success factors can be grouped together into organizational, project and technical success. The grouping assists with efforts to more clearly communicate the kinds of effects that implementation of CSFs can have. This approach contributed to better understanding and to tying the implementation of CSFs to system success, clarifying the ultimate benefits from the use of a system.

The framework of Yeoh and Koronios (2010) consists of the following success factors across all dimensions with the most important points highlighted below:

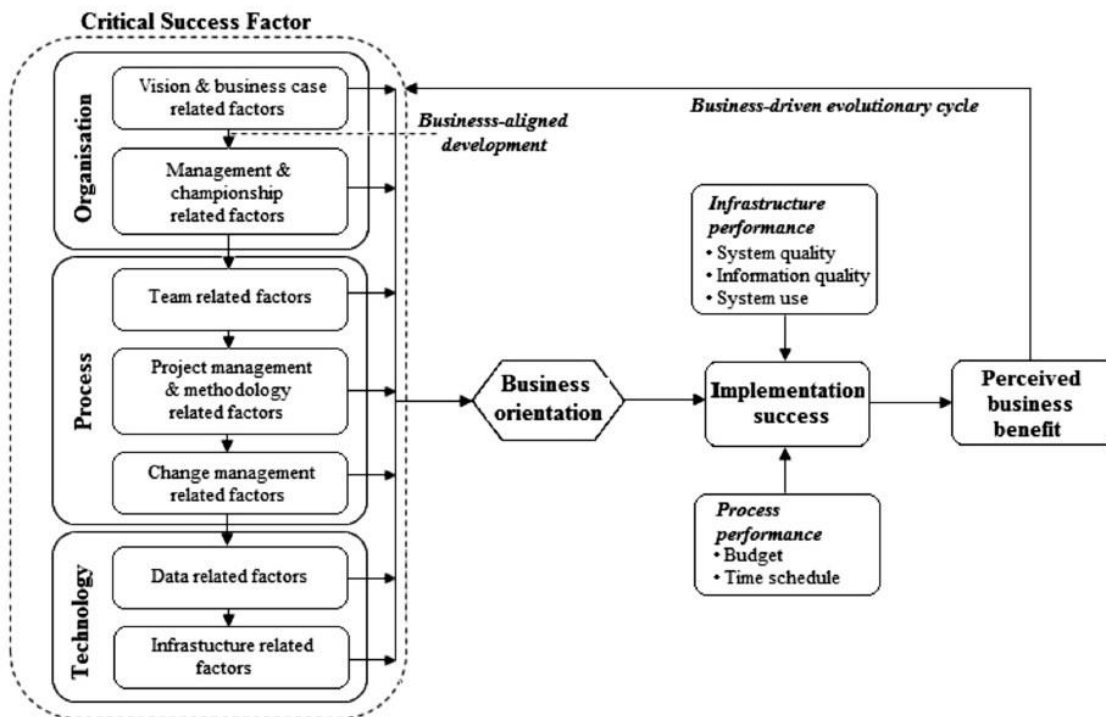


Figure 2.11: CSFs framework for implementation of BI systems (Yeoh and Koronios 2010)

Below is a detailed description of Yeoh and Koronios's framework:

Organisational dimension

- Committed management support and sponsorship:

Executive management commitment in the form of continuous support and sponsorship has been found to be the most important factor in BI system implementation.

- Clear vision and well-established business case:

It is important for successful implementation of BI to have a clear strategic business vision. In addition, a long-term vision, primarily in strategic and organisational terms, is necessary to establish a solid business case aligned with the strategic vision so as to meet the business objectives and needs. The purpose of establishing a business case is to identify the proposed strategic benefits, resources, risks, costs and timeline.

Process dimension

- Business-centric championship and balanced team composition:

It is critical for the organisation to have the right champion to support the implementation of the project. The champion usually understands the challenges and issues that arise during any change project, and will therefore assist with managing the change to achieve successful implementation. The champion's role extends to ensuring careful management of the organisational challenges that arise during the course of the project and to ensuring collaboration between business units during BI implementation.

- Business-driven and iterative development approach:

Proper and effective project management is essential for the success of BI implementation. Clear scoping and planning support the team working on BI in better implementation and the achievement of superior results. Moreover, clear scoping helps stakeholders to develop a common understanding of BI objectives, as a result improving alignment and implementation.

- User-oriented change management:

Change management was deemed a critical success factor for BI implementation. Staff involvement in the process of change supports efforts to achieve better results. Users tend to understand the business needs more thoroughly than system developers do, so this contribution will support success and remove any resistance to the changes being implemented.

Technological dimension

- Business-driven, scalable and flexible technical framework:

BI design needs to be flexible and dynamic to be able to accommodate scalability and the continuously changing requirements of the business. In addition, the design of BI infrastructure must allow for easy expansion of the system to align it with evolving information needs. This flexibility of design is important to building a sustainable framework that meets future changing needs.

- Sustainable data quality and integrity:

The quality and integrity of data was found to be extremely critical for successful implementation of BI, especially with regards to the central database and integrated information support decision-making process. Data quality has a tremendous influence on the quality of reports produced for top management; in turn, data quality influences decision outcomes.

As illustrated in Figure 2.11, the proposed CSFs framework for successful BI implementation outlines the contribution of different CSFs on the success of BI implementation. In addition to the contribution of CSFs, this framework considers the impact of external dimensions, as per the recommendations of Ariyachandra and Watson (2006), who describe two key dimensions as being process performance and infrastructure performance. Process performance refers to the monitoring of BI implementation progress. Process performance can be assessed in terms of time schedules and budgetary considerations, according to Ariyachandra and Watson (2006). Infrastructure performance refers to measuring the quality of the system and the standard of output, such as information quality, system quality and system use (Delone and McLean, 1992)

According to Yeoh and Koronios (2010), this framework supports the efforts of the organisation and individual users to assess the benefits of BI system implementation. Furthermore, the framework uses a closed feedback cycle to provide continuous assessment of the results. Based on this assessment, the system will be modified, optimised and improved accordingly. This closed loop supports the continuous improvement principle. It is expected that this framework will manage the CSFs effectively to support the successful implementation of a BI system.

Although the framework proposed by Yeoh and Koronios (2010) has specific strengths and advantages, such as flexibility in reviewing the results, using the closed feedback cycle and its representation of CSFs as the main input for success of implementation, it also has some

weaknesses and shortcomings. According to Adamala and Cidrin (2011), the framework proposes no specific measurement criteria for the different CSFs. The lack of clear criteria could be attributed to the general definition of many of the CSFs, so it is difficult to use consistent measures. Therefore, the framework's implementation would be impractical and its use might depend on the subjective opinions of the users.

The second drawback of the framework has to do with specific infrastructure performance factors, such as the fact that system quality and information quality are repeated in two places. They belong to the technology category (infrastructure and data factors) and should not be repeated elsewhere. Further criticisms of the framework proposed by Yeoh and Koronios (2010) are based on the complexity of the model and unclear relations between various variables, making it too difficult for practicing managers to use; the contents are unclear and the phrasing is very general. Also, the relations are not simple, so it is difficult to thoroughly understand the sequence of relations. Another drawback to the BI CSF model is the fact that it is strictly budget-oriented; where the budget is a prerequisite, limitations are imposed on the implementation requirements, forcing the user to adjust the model to the existing budget. In UAE, the common practice is to utilize the action-oriented budget, where the government's aim is to support improvement initiatives and boost innovation by approving the required budget in advance.

2.9 CONCLUDING REMARKS

A growing literature has emerged that examines PMSs and identifies the CSFs for their successful implementation (Bourne et al., 2000; de Waal, 2003; Neely, 2005, Ariyachandra and Frolick, 2008; Ferreira and Otley, 2009; and others). There are undoubtedly some challenges with implementing new performance management systems (Bourne and Neely, 2002), which is a complex undertaking that requires considerable effort. Identifying the CSFs that influence the successful implementation of PMS is therefore crucial. It helps the organisation to prioritise its efforts and focus on what is most important, which, in the early stages of PMS deployment, can reduce the risk of implementation failure. For instance, absence of top management support and staff involvement and commitment will negatively

affect the successful implementation of the whole project, as will the lack of a strong link to business strategy, which in turn hinders the creation of metrics that effectively assess organisational action and performance. Recognising the CSFs enables an organisation to understand why a particular PM effort may fail.

It is obvious from literature review that there is limited research on the causes of success or failure of PMS implementation and the impact of different success factors in developing countries and in UAE in particular. Poor understanding leads to neglect of CSFs in designing the right model for implementation. To respond to some of those concerns, this study undertakes research in government organisations in UAE. This study is not limited to the identification of CSFs in the context of PMS implementation, but will also examine their relevance and criticality. Also, it tries to identify the criteria that determine the success of PMS implementation; validates current understanding of CSFs and extends our knowledge of PMS. Table 2.3 and Table 2.4 summarises the findings of the present literature review.

Table 2.3: Summary of CSFs from literature will be inserted here as A3 size

No	CSF	Kaplan and Norton (1992)	Kaplan and Norton (2000)	Neely et al. (2000)	Bourne et al. (2002)	de Waal (2002)	Ho and McKay (2002)	Kennerley and Neely (2002)
1	Linking PMS to organisational strategy	Align the Organization to the Strategy	Translate the strategy to operational terms and align the organisation to the strategy			Managers have insight into the relationships between business processes and CSFs/KPIs		culture – ad hoc measures, not integrated with the organisation’s strategy and not used to manage business
2	System design and integration		BSC implemented at top management, not cascaded down the organisation	The need for the PM system across subsidiary companies should be the same.	many of the factors causing problems for implementation of PMS could be attributed to poor design process.	Managers agree on changes in the CSF/KPI set.	Different interpretation of the BSC by different managers	lack of focus, too many measures
3	Continuous monitoring and reporting		Role of the quality department and Continuous improvement			Managers are involved in making analyses. Managers can use their CSFs/KPIs/BSC for managing their employees.		Lack of proactive review process and Lack of data analysis and use
4	Clear targets and business benefits	Translate the Strategy to Operational Terms (Strategy Map, BSC)	misuse of BSC		The perceived lack of benefit from proceeding with performance measurement	Managers’ KPI sets are aligned with their responsibility areas. Managers find the performance management system relevant because it has a clear internal control purpose. Managers clearly see the promoter using the performance management system.	BSC did not ensure good customer service	
5	Top management commitment and support	Mobilize change through Executive leadership	lack of top management commitment and support	The top management’s full commitment to the PM	Continued Management Commitment	Managers clearly see the promoter using the performance management system. Managers realize the importance of CSFs/KPIs/ BSC to their performance.	It required additional time from the management.	the availability of management time to reflect on measures
6	Staff involvement in the system	involvement, BSC is a change project not metrics	poor staff involvement			Managers understand the meaning of KPIs.		The acceptance of measurement throughout the organization and the organization’s readiness for change
7	Skilled resources running the system		inexperienced consultants	Availability of appropriate resources and the necessary level of human effort	Time and efforts required			the lack of the necessary skills and human resources
8	Staff training and awareness	Make the Strategy Everyone’s Everyday job (Communication, Motivation, Personal Scorecards, Incentives,)	consider BSC as project and not idea for change					
9	IT infrastructure and support	Make Strategy a Continual Process (analytics and IS monitoring and reporting, link budget to strategy, Management meetings)		Information technology support	Difficulties with data access and the information technology systems			the lack of flexibility of information systems to collect the required data
10	Effective data management system		Quality data and reporting			Managers trust the performance information.		lack of data analysis and use
11	Motivation and linking performance to incentives				The perceived lack of benefit from proceeding with performance measurement		Branch managers thought it to be ineffective because it created hurdles for the employees to get bonuses	
12	Change management		BSC considered as a project and not an idea for change		The personal consequences from applying performance measurement			the organisation’s readiness for change and the acceptance of measurement throughout the organisation
13	communication		Communication to improve quality			Managers’ results on CSFs/KPIs/BSC are openly communicated.		

Table 2.2 : Summary of CSFs from literature

Table 2.4: Summary of CSFs from literature will be inserted here as A3 size

No	CSF	Bourne et al. (2003)	Chrusciel, D., & Field, D. W. (2003).	Kennerley and Neely (2003)	Morisawa, T., and Kurosaki. H. (2003).	Radnor and Lovell (2003)	Richardson (2004)	Ariyachandra and Frolick (2008)	Charan et al. (2008)	Ahmed Z. et al, (2011)
1	Linking PMS to organisational strategy	Vision and strategy are not actionable	Culture – ad hoc measures, not integrated with organization strategy and not used to manage business		clarifying the purpose behind introducing the BSC	lack of flexibility to adapt in line with organisations' development	Develop your Balanced Scorecard according to the vision of your organization and describe the vision of your Balanced Scorecard.	Clear link to business strategy	Consistency with strategic goals	BSC is effective during time of organisational changes
2	System design and integration	Strategy is not linked to department, team and individual goals		Systems: the availability of flexible systems that enable the collection, analysis and reporting of appropriate data	compatibility with other systems and reforms	Sophisticated, organization not ready for it. Lack of flexibility to adopt	Implement the Balanced Scorecard everywhere in your organization.	Evolutionary development methodology	Appropriate performance metrics.	Build BSC using the right parameters.
3	Continuous monitoring and reporting	Feedback is tactical and not strategic.	Assessment: Evaluation of the effectiveness of change is essential.	Process: existence of a process for reviewing, modifying and deploying measures			Implement your BSC in such a way that it can be adjusted automatically in accordance with day-to-day changes.			Prompt feedback of PMS results
4	Clear targets and business benefits		Planning and Analysis: Critical Evaluation of the gap between where the organization is now and where it would like to be, this can be achieved through examination of all possible influencing variables.		Clarifying the purpose behind introducing the BSC	non-clarity of PMS delivery and added value. BSC doesn't provide meaningful information, only an academic exercise	Develop your business strategy			
5	Top management commitment and support	The lead given by the CEO.	Top Management Support: Active and visible support from the management of the organization, often in the form of a champion for the application.		commitment by top executives	lack of top management and government support	Involve the senior leadership in the process of development of the Balanced Scorecard.	Management support and the role of champion	Commitment by the top management	
6	Staff involvement in the system	Strategy is not linked to resource allocation	User Involvement: Reality in which the ownership of the system is in the hands of the end-users	Culture: the existence of a strong measurement culture within the organisation.	Securing awareness and understanding within the organizations in which the BSC will be introduced	Non clarity of PMS delivery and value add		User support		Involvement of the employees in all activities related to BSC
7	Skilled resources running the system		Staff perceptions of organizational readiness to deal with change	People: the availability of the required skills to use, reflect on and deploy measures		BSC will need more resources to implement		Sufficient resources		
8	Staff training and awareness		User Training: Clear demonstrations as to how to use an application is critical for success.		securing awareness and understanding within the organisations in which the			Team skills	Awareness about PMS	
9	IT infrastructure and support	Developing information architecture with supporting technology	Information Source: Reality in which data are current and readily available.		utilising information systems		Implement your Balanced Scorecard in such a way that it can be adjusted automatically in accordance with day to day changes.		Effective information systems	
10	Effective data management system	Developing information architecture with supporting technology			data collection and analyses			State of existing data management infrastructure		
11	Motivation and linking performance to incentives	Aligning incentives with the new measurement system	Perception of Personal Gain: Perception of how an individual's participation would provide any personal gain to himself or herself by being associated with the change or the process.		incentives provided through links with compensation				Employees' commitment	
12	Change management		Assessment of change is essential to ensure organisational readiness to deal with change			resistance to change and suggestions for improving existing systems		Management of resistance		
13	communication		Comprehensive Communication: Critical Communication of the change message to all levels throughout the organization.		adequate preparatory period		Communicate the objectives of the Balanced Scorecard to everyone and educate all of your employees about it	Effective communication		

Table 2.4: Summary of CSFs from literature

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research methodology will be reviewed, followed by discussion of the research paradigm and a more detailed account of the research methods.

In designing and undertaking a PhD research project, the research problem and questions and cultural issues are important factors that must be considered at the outset when deciding on an appropriate research design to employ (Saunders et al., 2007). In this project, the researcher was significantly influenced by a number of these issues. As the study focuses on a problem confronting government organisations in a unique and complex context, the researcher had to undertake a thorough and critical review of the literature on research methodologies in order to examine the fit between the research questions and the instruments to be used to collect data (Creswell and Clark, 2007). Saunders et al. (2007) defined research methodology as the theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which research is based and the implications of these for the method or methods adopted.

The first step in determining an appropriate methodological approach for any research is to review prominent methodologies, such as the grounded theory method developed by Glaser and Strauss (1967) and Strauss and Corbin (1998), the case study method developed by Yin (1994), Gibson et al., (1999), the participant observation method by Jorgensen (Danny Jorgensen, 1989), the qualitative research methods developed by Chenail (1999) and other methods in this field. The research questions are discussed in Chapter One. They are:

- Q 1: What are the critical success factors (CSFs) for successful performance management system (PMS) implementation in UAE government organisations?**
- Q 2: How critical are these CSFs for the success of PMS implementation in UAE government organisations?**

To answer these two questions, case studies were conducted at the Abu Dhabi Water and Electricity Authority (ADWEA) group of companies. These studies may be characterised as qualitative research, an approach that will required interviews, observations and document and literature reviews. Table 3.1 summarises the framework for the whole research.

#	Research Phases /Methods	Scope	Results
1	Conceptual design	Literature review to understand the phenomenon	Chapter 1: outline research objectives and research questions
2	Literature review on CSFs	Review CSF related to PMS and business success	Chapter 2: list the most common CSFs that could be further investigated in the field research
3	Research methodology	Study research paradigms, theories, methods, strategies and instruments	Chapter 3: select best fit research paradigm, methods and research strategy
4	Exploratory survey	Test interview instrument and identify best cases for case study approach	Select 5 companies for case study and final interview design – Chapter 3
5	Case studies implementation	In-depth interviews and collect data from field	Collect the required data from the field
6	Data collection and coding	Use qualitative data coding methods	Chapter 4: present results in themes and codes
7	Data analysis	Use the findings to interpret the results	Chapter 5: data analysis and discussion, interpret results and link to literature
9	Conclusion & recommendations	Summarise the results	Chapter 6: develop conclusion and recommendations

Table 3.1: Overall research framework.

3.2 RESEARCH PARADIGM

A paradigm may be best defined as a “worldview”. It is a “*basic set of beliefs and/or assumptions that guide*” a researcher’s inquiry (Creswell, 1998). Kuhn (1970:175) defines a paradigm as “*a set of values and techniques which is shared by members of a scientific community, which acts as a guide or map, dictating the kinds of problems scientists should address and the types of explanations that are acceptable to them*”. Thus a research paradigm deals with how the world is viewed or perceived. It identifies to the researcher what is logical and significant about the world. Gummesson (2000) notes that the concept of paradigm can be used to represent “*people’s value judgments, norms, standards, frames of reference, perspectives, ideologies, myths, theories, and approved procedures that govern their thinking and action*”. In management research, the various paradigmatic positions are now often discussed in terms of an antithesis between two schools of philosophy, positivist and phenomenological. (Gummesson, 2005; Hussey and Hussey, 1997). Table 3.2 outlines the differences between the two paradigms.

	Positivist paradigm	Phenomenological paradigm
Basic beliefs	The world is external and objective	The world is socially constructed and subjective
Researcher	Observer is independent Science is value-free Focus on facts Look for causality and fundamental laws Reduce phenomena to simplest events	Observer is part of what is observed Science is driven by human interests Focus on meanings Try to understand what is happening Look at the totality of each situation Develop ideas through induction from data
Preferred methods	Operationalising concepts so that they can be measured Taking large samples	Use multiple methods to establish different views of phenomena Small samples investigated in-depth or over time

Table 3.2: Positivist and Phenomenological Paradigms. Adapted from: Easterby-Smith et al., 1991.

One of the major differences between the two approaches is that the phenomenological approach is dominant in social science while the positivist approach is commonly used in the natural sciences. The research philosophy that a researcher adopts will rely on individual assumptions about appropriate ways of thinking and working (Saunders et al., 2007). The research paradigm influences the drawing up of research questions, the methods used for data collection, the type of data that will be collected and analysis procedures (Blackmon and Maylor, 2005). The challenge is to match a research method and paradigm to the purposes, questions and issues under investigation. Researchers often use both quantitative and qualitative methods because they need to know and use a variety of methods to be responsive to the nuances of particular empirical questions and the idiosyncrasies of specific stakeholder needs (Johnson and Onwuegbuzie, 2004). The present research adopted a phenomenological paradigm, which seemed to be most suitable in the circumstances, providing a good fit between the paradigm and the research methods.

3.3 RESEARCH PROCESS

This research followed the research process shown in the following figure; this process comprised eight steps, as shown in Figure 3.1:

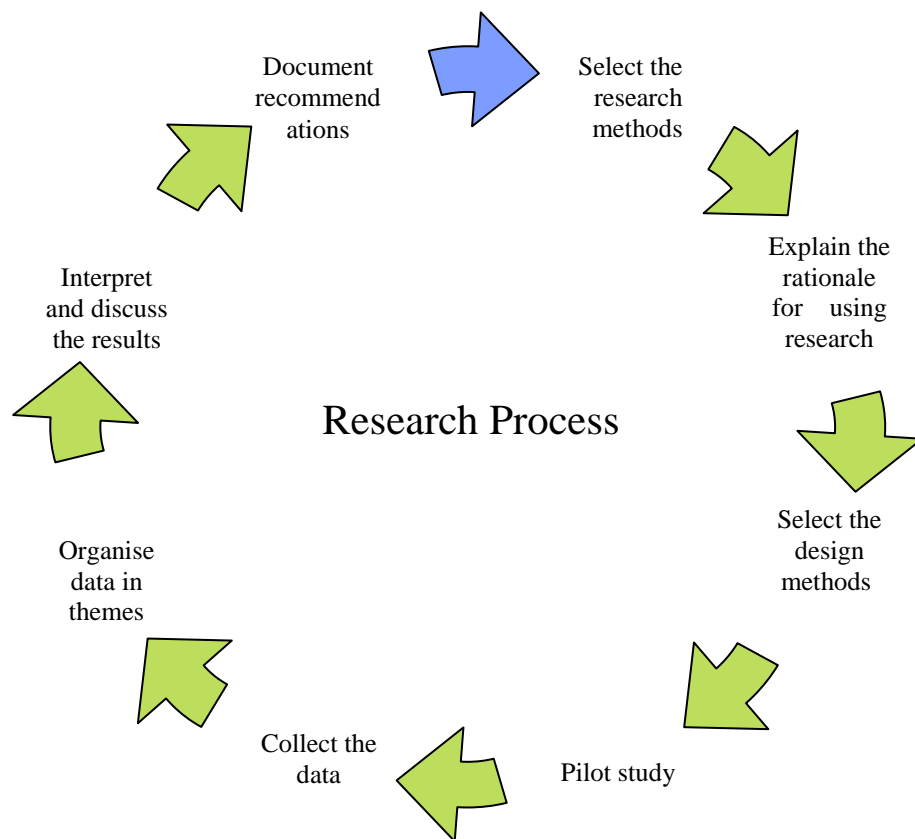


Figure 3.1: Schematic diagram of the research process

The steps shown need not be followed in sequence; rather, the researcher will move from one step to another according to the requirements of the particular research project and emerging circumstances during the study. The following is a brief description and definition of the steps in the process:

1. Select the appropriate research methods

The research questions are the definitive factor in determining the best methods to use (Tashakkori and Teddlie, 2003). The researcher needs also to consider other factors, not least the ability of the selected method to provide answers to the research questions and to yield the expected results.

2. Explain the rationale for using the selected method

The researcher has to articulate the strengths and limitations of the selected methods in order to justify his selection. A thorough literature review provides further justification for the selection.

3. Select the research design

The researcher should examine different designs used in the relevant field and choose the most appropriate design that best fits the research questions and project objectives.

4. Exploratory survey

The researcher should conduct an exploratory survey to identify the best cases from a larger group of cases, for example selection of five cases from 15 cases, in order to ensure that the case study focuses on the most appropriate cases. This improves the validity and reliability of the study.

5. Collect the data

There are many methods of data collection, of which the most popular methods are:

- a. survey questionnaires
- b. interviews
- c. observations
- d. document analysis
- e. secondary or already existing data

Based on the research design and research methods, the researcher selects the appropriate data collection methods.

6. Organise the data

Organising the data helps the researcher to do better analysis, using effective tools such as NVivo. Data coding, grouping, categorisation and classification are necessary parts of data analysis.

7. Interpret and discuss the results

Data interpretation and analysis is the process of extracting the real value from the raw data. Data analysis may begin right at the start of the study and yield a conclusion

at every stage. The researcher in this study will discuss the results on the basis of interpretation of the data and in relation to the literature.

8. Documenting the results and recommendations

In writing up the results, the researcher will present answers to the research questions and draw conclusions and generalisations from the study, based on observations and findings, and discuss the practical and theoretical implications of the research. The final report will also include recommendations for action and for future work in the area, as well as pointing out the limitations of and possible further improvements to the study.

3.4 QUALITATIVE RESEARCH DESIGN

Qualitative data were used in this research. The design of the study entailed procedures for collecting, analysing and reporting findings. According to Creswell (2007) and Creswell and Maietta (2002), the five most commonly used types of qualitative design are:

1. narrative research
2. case studies
3. grounded theory
4. phenomenology, and
5. participatory action research (PAR).

Based on the nature of the research questions and the objectives of this study, the researcher believes that the case study design was the most appropriate framework for the present research. A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real life context (Yin, 2009). A case study may be appropriate when the field is underdeveloped (Yin, 2003). The method is often exploratory in nature (Eisenhardt and Graebner, 2007) and can be useful in understanding beliefs and relationships. According to Moore (1983), case studies are the preferred strategy when the investigator has little control over events. They can also be employed in small countries and new topic areas, for studying complex phenomena and incremental processes and for answering “how” and “why (not)” questions (Vissak, 2010). The case study has acquired a reputation for providing acceptable results when used appropriately. These strengths of the case study method made it likely, in the present study, that the research objectives would be achieved.

3.5 QUALITATIVE RESEARCH METHODS

There are many methods that can be used to collect data in order to answer research questions of “what” and “how”. The data collection in the present study aimed to explore PMS CSFs in depth and to produce answers to the research problem. Table 3.3 shows some of the effective methods used in data collection. According to Esteves, (2004); some of the effective methods used in data collection are case studies (Gibson et al., 1999; Sumner, 1999), action research (Jenkins et al., 1999), structured interviews (Rockart and Van Bullen, 1986), group interviews (e.g. Khandewal and Miller, 1992) and critical literature reviews (e.g. Esteves and Pastor, 2001). Wiener (2006) note that a questionnaire is one of the most frequently used methods to identify CSFs.

Research Method	Example
Structured interviewing	Rockart and Van Bullen (1986)
Action research	Jenkins et al. (1999)
Case studies	Gibson et al. (1999), Sumner (1999)
Delphi technique	Atthirawong and McCarthy (2001), Brancheau et al. (1996)
Group interviewing	Khandewal and Miller (1992)
Literature review	Esteves and Pastor (2001), Umble and Umble (2001)
Grounded Theory	Glaser and Strauss (1967)
Multivariate analysis	Tishler et al. (1996)
Scenario analysis	Barat (1992)

Table 3.3: Research methods used for CSF identification (Esteves, 2004).

However, this research project used multiple data sources to gather data, such as the researcher’s observations and semi-structured in-depth interviews. Therefore, archival information and secondary data such as business plans, annual reports, strategies and objectives were used along with the interview data to establish an understanding of the various dimensions of the research problem. The data collection process, methods, tools and instruments will be outlined and discussed in more detail later in this chapter.

Prior to collecting data, the researcher reviewed the literature related to PMS and CSFs, with a view to identifying the core of the research and establishing a more focused approach. From the literature review, the researcher was able to construct a list of the most common CSFs in this area. Those CSFs were then examined in the context of the

present study, in order to identify those CSFs that relate to the implementation of PMS in the UAE.

Along with case studies, this research used semi-structured interviews. There are 15 companies under the Abu Dhabi Water and Electricity Authority (ADWEA). Five case studies were required for the research, and these were selected based on an exploratory survey. The following section outlines the rationale for using the techniques outlined above and the main characteristics of these techniques.

3.5.1 Case Study

Case studies are commonly used in research because they have the ability to shed light on general trends while still being amply comparable and solid to provide a basis for generalisation. In general, case studies are used when the researcher is attempting to grasp organisational problems that are sufficiently manageable to be understood in all their complexity or to identify the causes and effects of change (Moore, 1987).

Siggelkow (2007) outlined three important features of the case study in research. The first is its ability to motivate research, since investigation of a research question grounded in a real life situation is appealing to researchers. The second is its ability to inspire new ideas and sharpen existing theory, as case study research relies on rich data. The third feature is that case studies help illustrate how a theoretical construct might behave in real life, expanding and generalising theories by combining existing theoretical knowledge with new empirical insights (Yin, 1994). Moreover, the application of this method can be useful for transcending the local boundaries of cases investigated, capturing new layers of reality and developing new, testable and empirically valid theoretical and practical insights. Case studies do not necessarily have to rely on previous literature or prior empirical evidence. Thus, case study research can be used for theory-building even if little is known about the phenomenon (Vissak, 2010).

3.5.2 Case Study Design

However, case study research focuses on studying the problem rather than on individual issues. It uses an analytical approach, giving a comprehensive description of the case and building an in-depth, contextual understanding of the case that relies on multiple data sources (Yin, 2003). Some researchers such as Stake (2005) argue that the case

study research is not a methodology but a choice of what is to be studied. However, (Wynsberghe and Khan 2006) states that the cases study is a methodology, enquiry strategy or comprehensive research strategy.

Case studies can consist of a single case or multiple cases that can provide useful comparisons. Some authors and reviewers suggest that a larger number of cases yields better results (Eisenhardt and Graebner, 2007). According to Eisenhardt (1989), a study of four to ten cases usually works well, while if there fewer than four cases, theory is difficult to generate and, with more than ten cases, the volume of data is difficult to cope with. Both qualitative and quantitative data can be gathered in the case study approach, but it mostly depends on the qualitative approach and frequently uses semi-structured interviews (Bryman and Bell, 2003). In order to maximise the benefits of the approach, a questionnaire is often designed to gather data in both qualitative and quantitative forms. Quantitative data has the advantage that it is easier to analyse. Another way of increasing the validity of the results of a case study is to contact more informants/respondents from different sources (Eisenhardt and Graebner, 2007), in this case firms, consultants, government advisers and members of industry associations (Perry, 1998).

According to Stake (1995), there are three different designs for a case study, distinguished by their intent: the single instrumental case study, the multiple case study and the intrinsic case study. In the single instrumental case study, the researcher focuses on one case only, whereas he or she selects more than one in the multiple case design. In the intrinsic case study, the researcher may study several issues in different cases, or different issues within a single case. For the present study, the researcher used the multiple case study design (Tashakkori and Teddlie, 2009).

3.5.3 Case Study Implementation Procedure

This study used Stake's (1995) procedures for conducting multiple case studies, beginning with data gathering from different sources, as explained earlier, and following this with coding and analysis. The researcher also wrote a brief description of each case, highlighting key issues related to the phenomenon under investigation and identifying a few key issues or themes that emerged from the analysis in each case in

order to understand specific characteristics before going on to generalise beyond the case. The analytic strategy was to identify issues within each case and then look for common themes that transcended the cases (Yin, 2003).

3.5.4 Justification for the Case Study Research

Some of the strengths and weaknesses of the case study approach have already been described above. An additional strength is that it often uncovers rich data, recognises existing complexities and allows insights to emerge. Moreover, it is characterised by a high rate of response, especially if it uses interview techniques in data gathering, and can explain new trends. It is flexible and accepts different qualitative and quantitative inputs, besides allowing the addition of new questions during the study (Siggelkow, 2007).

Thus, the case study method enables research to be conducted in countries with sample bases that are too small for other statistical generalisation methods to be applied (Rowley, 2002). Case studies (Vissak, 2010) do not necessarily have to rely on previously published research or prior empirical evidence and can therefore be used for theory-building even if little is known about the phenomenon. Furthermore, the necessary data can be collected over a long time, providing more than a cross-sectional snapshot of a process or phenomenon (Ghauri, 2004).

Case studies have certain weaknesses, such as the difficulty of accessing data, being relatively expensive, difficulty in data analysis and presentation and the long time it takes to implement the studies. More importantly, they are criticised for their inability to offer statistical generalisations, for developing too narrow or too wide theories (or none at all) and for producing results that are hard to verify. Moreover, when using interviews in case studies, the interviewees may not be totally honest, some may leave or opt out while the study is being conducted and the researcher may face the risk of losing his or her own objectivity or being tempted to conceal results that do not agree with his or her propositions or main conclusions (Vissak, 2010).

The present researcher considered these risks and tried to minimise them, for example by getting approval from a high authority to conduct case studies in the selected

organisations and using triangulation to improve the validity of results and allow for generalisations. Selection of the cases was based on a pilot survey, after which the number of cases to be studied was increased to five, to improve validity. Moreover, participants were selected from different managerial levels in the organisation and with different levels of experience with PMS. In addition, an interview protocol was implemented to ensure participants of the confidentiality of their responses.

Undeniably, however, case studies tend to be descriptive rather than useful for the generation of theory (Lawton, 2009). Case studies lack the statistical validity of samples that have been properly chosen, and therefore the extent to which valid generalisations can be made depends on the degree to which the case studies themselves are typical and the care used in drawing conclusions (Moore, 1983). Similarly, Lawton (2009) argues that a common weakness of case-based research is the lack of selectivity and presentation of only those details that relate to the conceptual argument. Therefore, there is still a need to attend to thoughtful research design, careful justification of theory building, theoretical sampling of cases, interviews that limit informant bias, rich presentation in tables and appendices and clear statements of the theoretical arguments (Stake, 2005).

The main objective of this research was to develop an in-depth understanding of the CSFs needed for ensuring the successful implementation of PMS within ADWEA specifically and the UAE government in general. As such, case studies were appropriate for the understanding of real life phenomena, complemented by the collection and analysis of other data.

3.5.5 Interviews

An interview is among the most effective instruments in field research. Cohen et al. (2007) defined the interview as an interchange of views between two or more people on a topic of mutual interest, to obtain information from the interviewee and enable him/her to express a point of view. Interviews may be utilised to:

1. be the main instrument for gathering information
2. assist in generating theories, and
3. provide an explanatory method that assists in identifying variables.

Generally, interviews may be structured, semi-structured or unstructured. The first type has fixed questions and a limited number of answers; this is standardised and interviews are repeated in the same sequence and way. This type of interview is easier to analyse but offers limited flexibility (Turner, 2010).

Unstructured interviews usually use open-ended questions and allow the interviewer the flexibility to use his/her imagination to expand the discussion and gain more knowledge. Such interviews may also contain probe questions and require a well-trained interviewer to manage the interview. This type of interview is more difficult to analyse and demands more effort and time, but it is useful for exploring issues in greater depth (Corbin and Morse, 2003). The semi-structured interview is a mix of both types; it contains both open-ended and close-ended questions, and it carries some of the advantages of both structured and unstructured interviews (Corbin and Morse, 2003). The present study used semi-structured interviews.

Osteraker (2008) suggests that interviewers should be able to explain the purpose of the interview, know what to look for, be interested in the topic, control the interview situation and be open to alternative ways of thinking. According to Perry (1998), although interviews begin with unstructured questions, some probe questions are also used to ensure that the interviewees' perceptions and concerns are raised. The pilot studies that are customarily done before the major data collection stage are not a pre-test or "full dress rehearsal" of the interview protocol (Yin, 1994); rather, they are an integral part of developing the interview protocol, that is, of the "play writing" process. Finally, a stage of convergent interviews with practitioners can be incorporated into doctoral and master's research design, while prior theory from the literature is being reviewed (Nair and Riege, 1995).

The interview protocol will detail how interviewees are approached and how the interviews are conducted. In the present study, a table with the organisation's name, the interviewee's position and date of the interview were provided to reflect the importance of the temporal and physical context of the case study. Furthermore, to develop trust with the interviewee, the researcher offered confidentiality.

The interview questionnaire was developed based on the findings and feedback from the pilot study. See appendix 3. The questions elicited the participants' views and suggestions solutions. An introduction, explanation of the purpose of the research, guidelines and instructions were attached to the questionnaire. The interview protocol was approved by the researcher's supervisors to ensure it met ethical and academic standards and permission to conduct the research was obtained from the top management of ADWEA.

3.5.6 Interview Protocol

The interview protocol serves the purpose of guiding the interview and works as a basic checklist to ensure all relevant topics are discussed (Lamb et al, 2007). However, it needs to be flexible enough to cover unplanned issues worthy of exploring. In the present study, the researcher encouraged respondents to discuss in detail any particular issue that they felt was important to share. On the other hand, issues that appeared uncomfortable to the respondents were not pursued. In examining the interview transcripts and generating themes, it was important to identify how often certain issues were mentioned, how representative they appeared to be and the force and variety with which the issues were expressed. Interview protocol is detailed in Appendix 2.

3.5.7 Interview Data Collection Procedure

To ensure a comprehensive understanding of the issues around the CSFs of PMS, interviewees were arranged with a number of directors, managers and experts from the selected organisation. Twenty-six semi-structured interviews were conducted in the period between March and July 2013. These interviewees were potential 'strategic leaders' in fostering the change process for PMS development. All interviews were conducted in person at the interviewees' workplace. Interviews were on average forty minutes long. Fifteen interviews were recorded using digital media, with the consent of the interviewees, and were subsequently transcribed; the rest were handwritten and keyed into a computer on the same day. Each interviewee received an email in advance containing details of the project and a brief overview of the project at the beginning of the interview. Table 3.4 presents the job title of each interviewee and his or her corresponding identifier. All interviewees had performed some role associated with

PMS implementation in the organisation and were responsible for planning and implementing operational changes in their respective fields.

Respondent	Position
Respondent_01	Business Planning & Performance Manager (acting)
Respondent_02	Business Planning & Performance Specialist
Respondent_03	Asset Information & Standards Manager
Respondent_04	Asset Management Director
Respondent_05	Managing Director
Respondent_06	Maintenance Manager
Respondent_07	Senior QA analyst - Business Planning & Performance
Respondent_08	Senior Business Planner - Business Planning & Performance
Respondent_09	Chairman Advisor
Respondent_10	Corporate Affairs and Strategy Manager
Respondent_11	Technical Advisor - Business Planning and Performance
Respondent_12	Business Planning & Performance Manager
Respondent_13	Operation and Maintenance Manager
Respondent_14	Network Management Manager
Respondent_15	Projects Manager
Respondent_16	Supply Manager
Respondent_17	Managing Director
Respondent_18	Projects Sr. Engineer
Respondent_19	Sr. O&M engineer
Respondent_20	Finance Manager
Respondent_21	Maintenance Manager
Respondent_22	Networks Manager
Respondent_23	Asset Management Director
Respondent_24	Business Planning & Performance Manager
Respondent_25	Business Planning & Performance Specialist
Respondent_26	Customer Services Manager

Table 3.4: Background of respondents.

3.5.8 Recording of Data

All interviews were tape-recorded, using digital media and subsequently transcribed, using both the digital recording and the notes taken by the researcher. The researcher listened to the tape repeatedly and checked the transcription. This increased the reliability of the transcription and helped the researcher to understand the significance of the intonation, pauses and the context of unfinished sentences (unspoken words) (Patton, 1987). To ensure the confidentiality of the respondents, personal and identifying information were removed from the transcript.

3.6 QUALITATIVE DATA ANALYSIS

The first step in data analysis is to understand the nature of the collected data. Getting the data in a format that fits with the available data analysis tools is often critical. This can be achieved by converting the data to any format that is accepted by the data analysis tools. In order to successfully analyse the data, the researcher needs to be familiar with the analysis tools that he/she will use. The researcher may consult an experienced data analyst or statistician who is expert at data handling, in order to get help with implementing the correct analysis and with interpreting the results.

“The aim of data analysis is the discovery of patterns among the data, patterns that point to theoretical understandings of social life” (Babbie, 2010). The selection of appropriate tools is based on many factors such as the type of data collected, the purpose of analysis and the required form of the results. The following section explains these differences and how analysis of data sets was implemented. The most commonly used techniques to prepare qualitative data for analysis are coding, writing memos and graphical mapping of concepts.

3.6.1 Coding

Data can be collected using different methods such as observation, in-depth interviewing, content analysis or any other form. The key process in the analysis of qualitative data is coding, classifying or categorising. In the coding method, qualitative data are organised in a systematic way to discover patterns and relations. Coding takes the researcher from the raw text area to the research issues and concerns in many small steps.

There are various types of coding, the most common being:

- open coding
- axial coding, and
- selective coding.

Open coding, as described by Strauss and Corbin (1998), is used to expose all possible ideas, concepts, thoughts and meanings in the text, to break the data to small parts. These parts are then examined and compared for similarities and differences to create open codes. This technique usually produces a long list of open codes relating to different interpretations and views when examining the same subject from different

angles. Axial coding focuses on identifying the key concepts in the study. Generally, axial coding uses the results of open coding and generally yields additional concepts (Strauss and Corbin, 1998). When the researcher uses open code categories, it is possible to use axial coding for regrouping the data in a more analytical way. As for selective coding, the core concept here is identifying the central code in the research topic, the code to which all other codes are related in one way or other (Mayring, 2004).

3.6.2 Procedures for Coding, Tabulation and Analysis

NVivo software was used for coding and tabulation, as it permits the capture and storage of large amounts of data, enabling the researcher to consult on specific information quickly and accurately. Each interview was captured exactly as it happened. As a general rule, the coding scheme should be tailored to meet the particular requirements of the analysis. It is recommended to code in greater detail was initially thought to be required, as this makes it possible to combine code categories at any stage of the analysis. In the present study, selective coding was used, as the initial list of CSFs to be investigated was developed from the literature review. In addition, open coding was used to identify the main concepts and themes under each CSF, while axial coding was used for regrouping the concepts and themes in more analytical way.

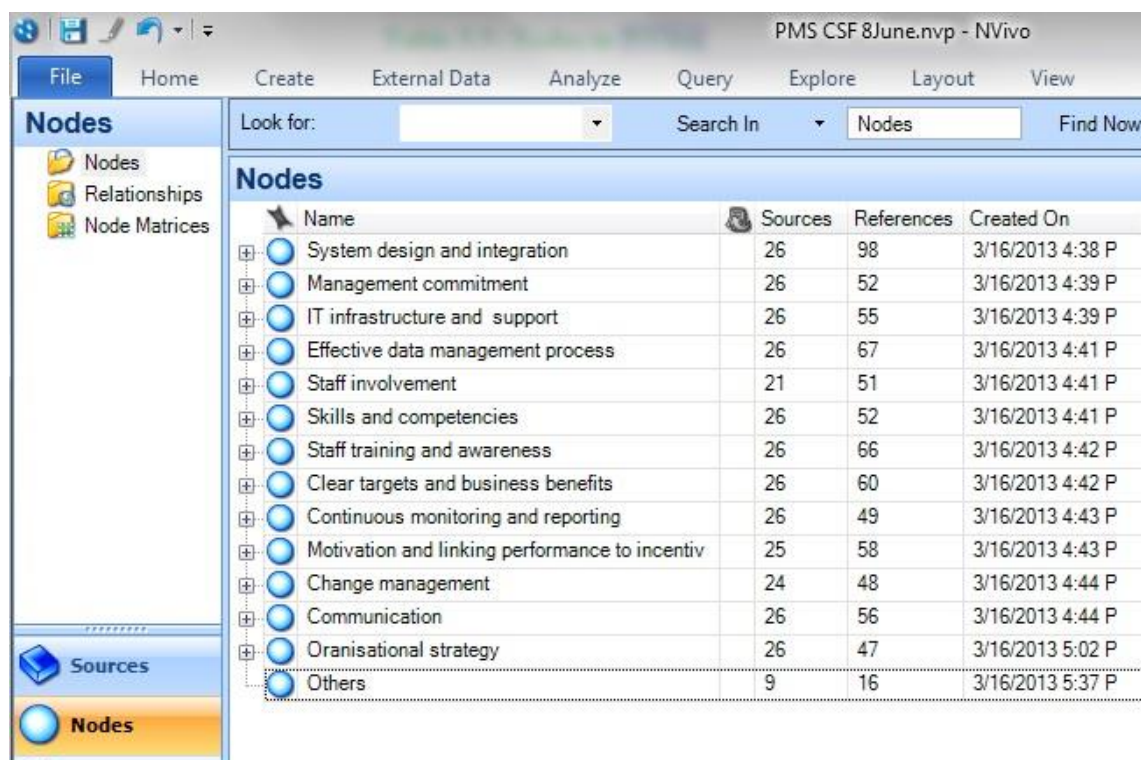
3.6.3 Data Analysis Tools

Content analysis was used to code issues reported by employees during their interviews. This involved classifying the interview transcripts into ‘category construction’ and ‘sense making’ (Patton, 1987: 144). NVivo 10.0 was used to aid the analysis, as it offers a structured environment to facilitate the analysis of qualitative data, allowing the researcher to code the text into themes or categories (called nodes) from text documents and generate ‘tree nodes’ (a hierarchical node structure) for data display. NVivo calls codes ‘nodes’ (James, 2012). A node is a collection of references about a specific theme, place, person or other area of interest (Bazeley 2007). Richards (2009) defined nodes as containers for categorising the projects, ideas or topics the researcher is interested in. The hierarchical nodes can have major themes called ‘parent nodes’, with several sub-themes called ‘child nodes’. Typically a node starts as a free node; then, when references are organised into a hierarchy or tree, nodes become tree nodes. The

coding framework may be established a priori or can be created concomitantly with textual analysis. Some nodes are added at the second stage.

According to Miles and Huberman (1994), the basis for categorising the raw data starts with identifying main codes. This requires clear definition of what codes are and a simple description of how to know when the theme associated with each code occurs. This study uses generated CSFs from the literature as the main codes in the analysis. The definition of each CSF is detailed in the previous chapter. These CSFs are the initial codes to reflect ‘categories’ of data observed, and the codes were created in NVivo as nodes to represent these themes.

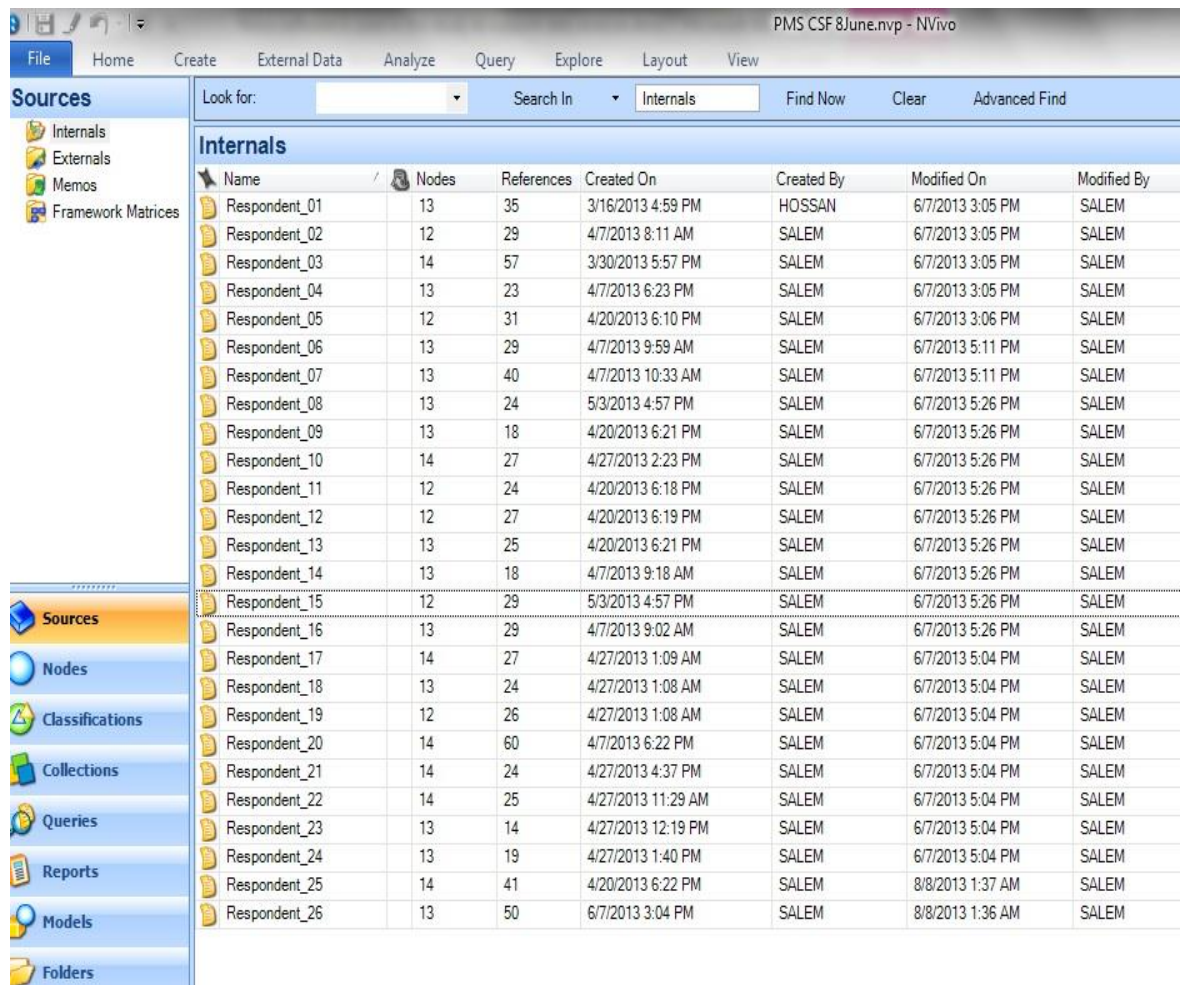
Initial coding identified the possible CSFs that could have an impact on the successful implementation of PMSs in UAE government organisations. The analysis of interview transcripts followed the steps to content analysis outlined by Weber (1985). The first step was to set a coding framework and a detailed codebook. Fourteen parent nodes generated by the literature review in previous chapters provided an insight into the potential nodes. Table 3.5 shows the parent nodes.



Name	Sources	References	Created On
System design and integration	26	98	3/16/2013 4:38 P
Management commitment	26	52	3/16/2013 4:39 P
IT infrastructure and support	26	55	3/16/2013 4:39 P
Effective data management process	26	67	3/16/2013 4:41 P
Staff involvement	21	51	3/16/2013 4:41 P
Skills and competencies	26	52	3/16/2013 4:41 P
Staff training and awareness	26	66	3/16/2013 4:42 P
Clear targets and business benefits	26	60	3/16/2013 4:42 P
Continuous monitoring and reporting	26	49	3/16/2013 4:43 P
Motivation and linking performance to incentiv	25	58	3/16/2013 4:43 P
Change management	24	48	3/16/2013 4:44 P
Communication	26	56	3/16/2013 4:44 P
Organisational strategy	26	47	3/16/2013 5:02 P
Others	9	16	3/16/2013 5:37 P

Table 3.5: Nodes in NVivo

In order to capture the data in NVivo, all transcripts of the 26 interviews were imported from Word files to NVivo as a new project document. Each file was linked to the source name representing the participant number. The source shows the number of references obtained from each participant in all nodes; also, it shows the contribution of every participant in different nodes. Table 3.6 shows the level of contribution of each participant as captured by NVivo.



Name	Nodes	References	Created On	Created By	Modified On	Modified By
Respondent_01	13	35	3/16/2013 4:59 PM	HOSSAN	6/7/2013 3:05 PM	SALEM
Respondent_02	12	29	4/7/2013 8:11 AM	SALEM	6/7/2013 3:05 PM	SALEM
Respondent_03	14	57	3/30/2013 5:57 PM	SALEM	6/7/2013 3:05 PM	SALEM
Respondent_04	13	23	4/7/2013 6:23 PM	SALEM	6/7/2013 3:05 PM	SALEM
Respondent_05	12	31	4/20/2013 6:10 PM	SALEM	6/7/2013 3:06 PM	SALEM
Respondent_06	13	29	4/7/2013 9:59 AM	SALEM	6/7/2013 5:11 PM	SALEM
Respondent_07	13	40	4/7/2013 10:33 AM	SALEM	6/7/2013 5:11 PM	SALEM
Respondent_08	13	24	5/3/2013 4:57 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_09	13	18	4/20/2013 6:21 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_10	14	27	4/27/2013 2:23 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_11	12	24	4/20/2013 6:18 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_12	12	27	4/20/2013 6:19 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_13	13	25	4/20/2013 6:21 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_14	13	18	4/7/2013 9:18 AM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_15	12	29	5/3/2013 4:57 PM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_16	13	29	4/7/2013 9:02 AM	SALEM	6/7/2013 5:26 PM	SALEM
Respondent_17	14	27	4/27/2013 1:09 AM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_18	13	24	4/27/2013 1:08 AM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_19	12	26	4/27/2013 1:08 AM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_20	14	60	4/7/2013 6:22 PM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_21	14	24	4/27/2013 4:37 PM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_22	14	25	4/27/2013 11:29 AM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_23	13	14	4/27/2013 12:19 PM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_24	13	19	4/27/2013 1:40 PM	SALEM	6/7/2013 5:04 PM	SALEM
Respondent_25	14	41	4/20/2013 6:22 PM	SALEM	8/8/2013 1:37 AM	SALEM
Respondent_26	13	50	6/7/2013 3:04 PM	SALEM	8/8/2013 1:36 AM	SALEM

Table 3.6: Textual data as documents imported into NVivo

The analysis of data under each node generated certain patterns and themes, which were continuously examined in light of new data. Moving into the second stage of analysis, sub-nodes, called child nodes, emerged as new themes and relationships under the parent nodes. Coding was developed further and arranged in tree nodes (see Table 3.7).

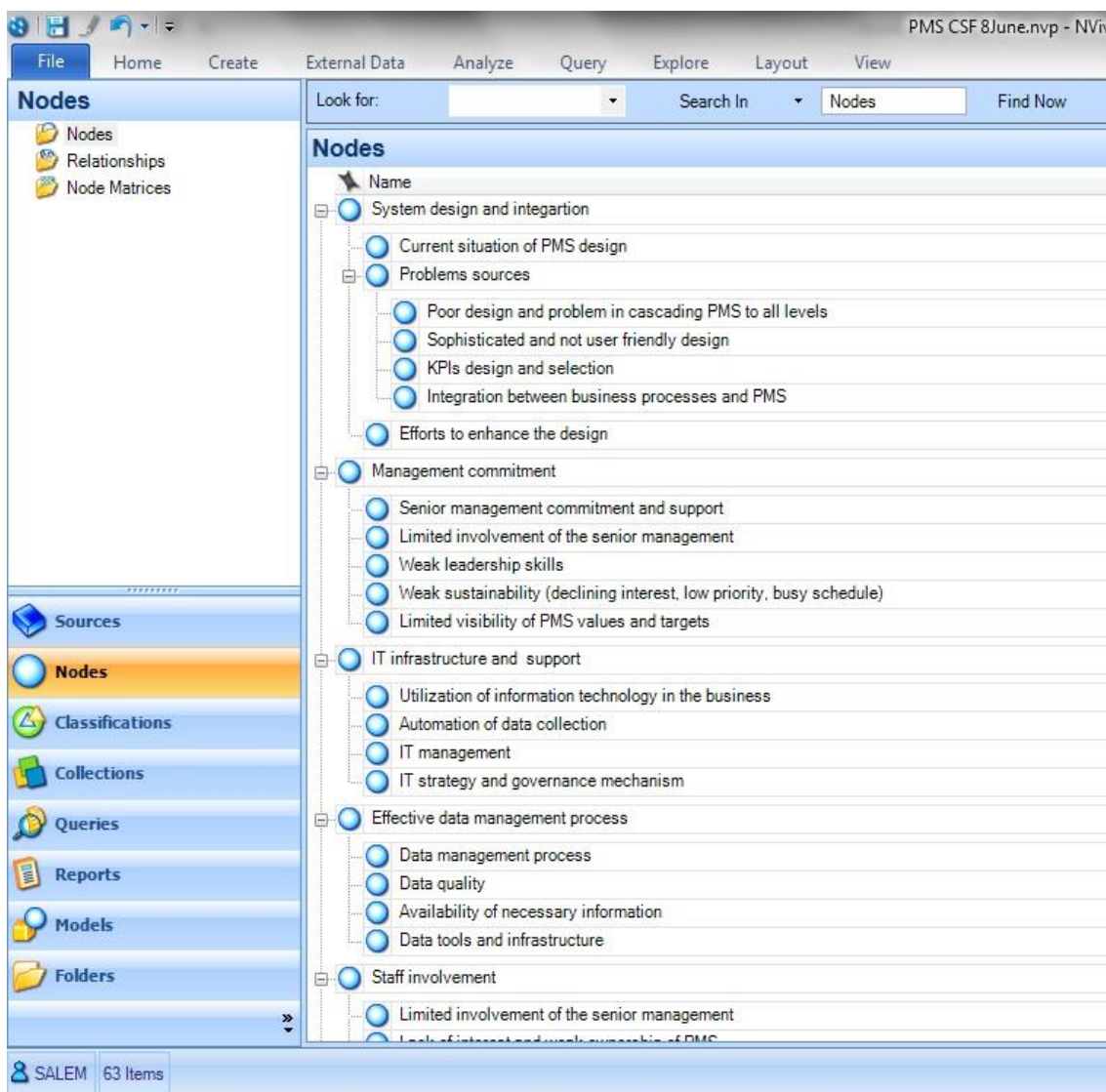


Table 3.7: Tree nodes in Nvivo

The process of coding raw data is called annotation; data allocated to the relative codes during this exercise or new codes that have emerged from the data are added as new nodes. NVivo has the capability to provide a quick and simple way of annotating texts, as shown in Table 3.8. Relevant texts are selected from each of the transcripts and linked to the relevant node.

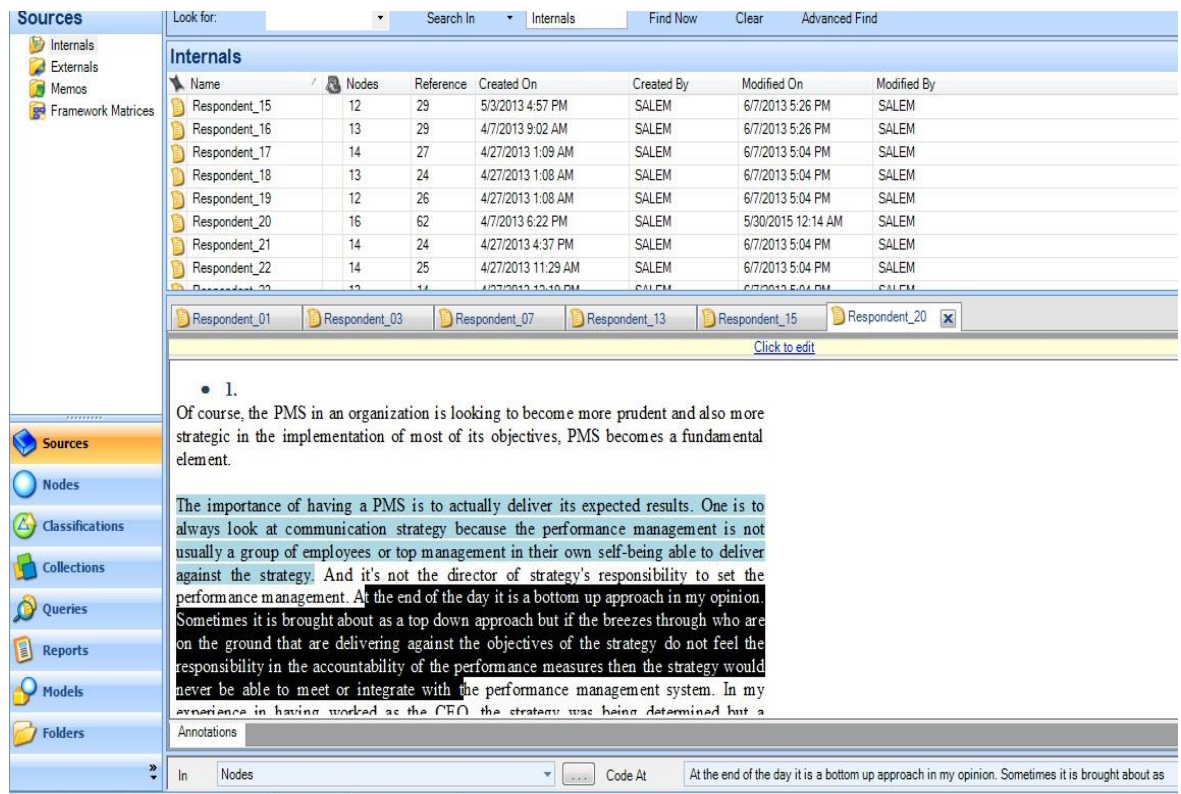


Table 3.8: Annotating text in NVivo to the nodes

The next step was testing the validity of the coding framework, which was done by an independent coder. The third step involved testing the reliability of the coding framework. The interview transcripts were coded, using the framework, by the investigator and independent coders. Any disagreements between coders were reviewed and a final determination about the coding was made by the investigator.

Creswell and Miller (2000) have suggested nine steps to ensure the validity and reliability of qualitative data. These are triangulation, disconfirming evidence, researcher flexibility, member checking, prolonged engagement in the context, collaboration, the audit trail, rich description and peer debriefing. Miles and Huberman (1994) have identified twelve tactics for measuring the reliability and validity of data in a case study. Following these guidelines ensured the representativeness of the interviewees. Triangulation across data sources and methods was carried out, contrasts or comparisons were made between two sets of things, persons, roles, activities and sites as a whole, rival explanations were checked, negative evidence was checked and feedback from informants was collected. Procedural reliability of the study was ensured through appropriate means such as using multiple data sources where available.

Contextual validity was ensured by checking data against different sources. Confirmation of responses was ensured by cross-checking responses to similar questions.

3.6.4 Plan for Data Analysis

Chapter 2 (Construct Development) presents a list of CFSs developed from literature. Chapters 4 (Data Analysis) and 5 (Data Findings) presents detailed responses of the interview participants about their experience and perception with regard to current PMS implementation. Data were collected in light of CSFs developed, based on the literature review. Key findings of Chapter 4 (Data Analysis) are summarised in Chapter 5 (Data Findings). Chapter 5 also explore and matches the key findings with the list of CSFs developed earlier. Figure 3.2 elaborates the process of data analysis. Data analysis is spread over two levels. The first level of analysis involves the comparison of interview data for each factor investigated. Then the diversity of CSFs was summarised in a number of categories or themes, which were justified by quotations from the interviews. This level is basic and descriptive in nature, classifying data by what was said, without making comments or developing theories as to why or how. The aim of this level of analysis is to make sense of the data collected and to highlight the important messages, features or findings.

This level of data analysis commonly involves five tasks: (1) discovering themes and subthemes; (2) describing the core and peripheral elements of themes; (3) building hierarchies of themes or code books; (4) applying themes; and (5) linking themes into a theoretical model (Bernard and Ryan, 2010).

The term ‘theme’ stands for a limited number of dynamic affirmations in a certain culture, which control behaviour or stimulate activity (Opler, 1945; Bernard and Ryan, 2010). Other researchers have often referred to themes as “categories” (Glaser and Strauss, 1967), “codes” (Miles and Huberman, 1994) or “labels” (Dey, 1993: 96). A theme may be defined as a grouping of fundamental concepts gathered together in a higher order classification (Straus and Corbin, 1990; Agar, 1979; Bernard and Ryan, 2010).

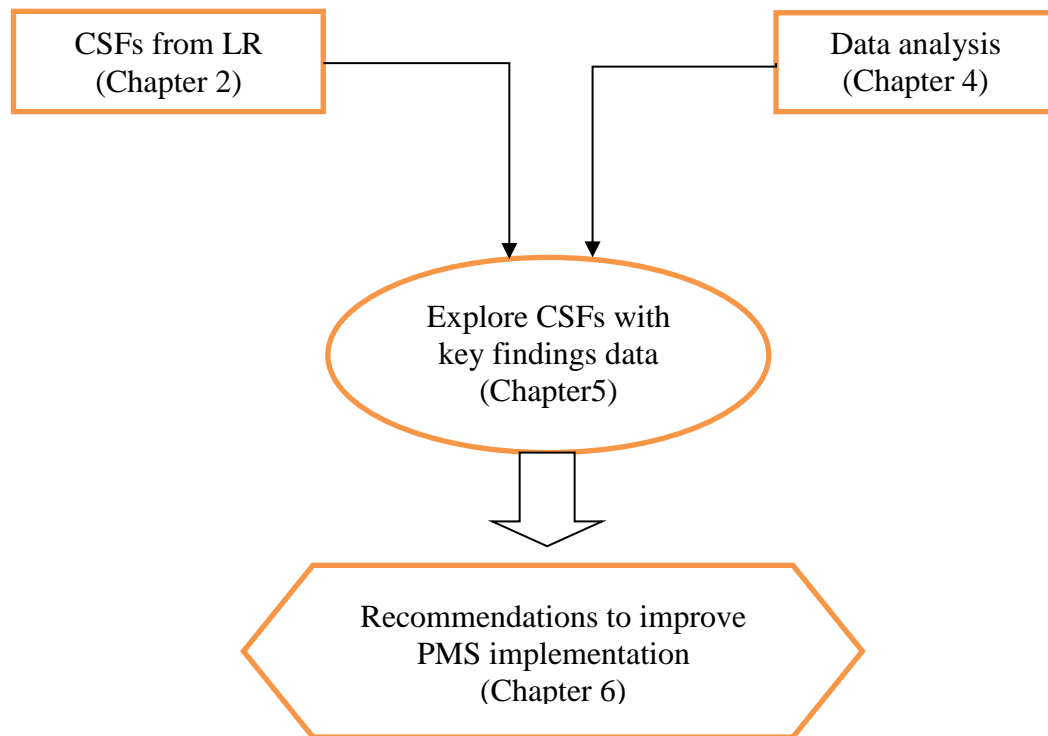


Figure 3.2: The Research Data Analysis Process.

Therefore, a theme is the central topic, subject or concept the author is trying to highlight. Themes generated in this research come from both data (inductive method) and literature (deductive method) (Bernard and Ryan, 2009). In this case, other studies were reviewed to identify common themes (critical success factors) in implementing performance management system successfully.

The second level of data analysis is a higher level; it is a more interpretive analysis that is concerned with the response, as well as what may have been inferred or implied. It includes the researcher's critical evaluation of the data set and findings. Therefore, "memo" codes, which are the running commentary of the researcher, are applied to arrive at an in-depth understating of the response. This inductive approach assists in establishing clear links between the research objectives and the summary findings derived from the raw data. Consequently, in the present study, the second level of analysis tested the list of CSFs generated from the literature in the light of data gathered during interviews. In detailed analysis, a method called Data Matrices has been used. Data matrices are familiar case-by-attribute matrices that are used across the sciences to record data (Bernard and Ryan, 2009). The data matrix consists of the construct

(theme), attributes or propositions, literature, data references and critical evaluation. The objective of this data matrix is to provide a body of knowledge to aid in implementing PMS.

3.7 POPULATION AND SAMPLING

To ensure that the data collected would provide a reliable basis for drawing inferences, making recommendations and supportive decisions (Bryman and Cramer, 1999; De Vaus, 1996), a large and adequate sample size was taken to remove bias and to meet the criteria required by the analytical methods used. However, it was noted that Bryman and Cramer (1999) emphasise that the size of the sample has to be related to the size of the population. They also believe that the larger the sample, the greater the accuracy.

Social researchers must select observations that will allow them to generalise to people and events that they did not observe. This often involves a sampling process to select people or events to observe. Sampling is a procedure wherein a fraction of the data is taken from a large set of data, and the inference drawn from the sample is extended to the whole group (Raj, 1998). Babbie (2010) states: *“The key purpose of the sampling techniques is to allow researchers to make relatively few observations and gain an accurate picture of a much larger population.”* According to Salant (1994), sampling is appropriate for a research project if it is done effectively.

According to Saunders (2007), there are two types of sampling: probability sampling and non-probability sampling. Under these two main classifications, there are many types of sampling techniques. Probability sampling is a sampling process that depends on random selection, where each unit has a non-zero chance of being selected in the sample (Raj, 1972). Non-probability or judgment sampling is a process in which probabilities cannot be assigned to the units objectively, and hence it becomes difficult to determine the reliability of the sample results (Yamane, 1967).

According to Salant (1994), sometimes it is preferred to use probability samples based on precise statistical techniques, but at other times non-probability techniques are more appropriate. Non-probability sampling techniques include relying on available subjects, purposive or judgmental sampling, snowball sampling and quota sampling (Saunders,

2007). Probability sampling methods provide an excellent way of selecting representative samples from large, known populations. As cited by Saunders (2007), these methods counter the problems of conscious and unconscious sampling bias by giving each element in the population a known (non-zero) probability of selection (Yamane, 1967). Random selection is often a key element in probability sampling. The most carefully selected sample will never provide a perfect representation of the population from which it was selected. There will always be some degree of sampling error. By predicting the distribution of samples with respect to the target parameter, probability sampling methods make it possible to estimate the amount of sampling error expected in a given sample (Babbie, 2010).

Non-probability sampling is well suited to exploratory research intended to generate new ideas that will be systematically tested later. However, if the goal is to learn about a large population, it is imperative in survey research to avoid judgment of non-probabilistic samples (Salant, 1994). The main difference between probabilistic and non-probabilistic sampling is that the latter uses random selection while the former uses different techniques to select the sample based on certain criteria. In probability sampling the researcher is able to estimate the representation of the population and to estimate confidence intervals for the statistics. So, probability sampling is considered to be more accurate and rigorous.

Nevertheless, in some cases it is more practical to consider non-probabilistic sampling. There are different types of non-probabilistic sampling; the most common being accidental or purposive. Purposive sampling approaches the problem with a specific plan in mind and it is a method that was used in the present research. There are different techniques and methods which can be considered as subgroups of purposive sampling. In our research, we dealt with two types: expert and quota sampling.

3.7.1 Expert Sampling

Expert sampling involves selecting a “panel of experts” in the field of research to give a valuable and accurate response. Using this type of sampling provides evidence of high level of validity for the results (Babbie, 2010).

3.7.2 Quota Sampling

Quota sampling depends on the non-random selection of the sample frame, either people or cases, where the researcher sets clear criteria for the quota selection with specific characteristics (Babbie, 2010).

To determine the target population, the sample was chosen from a sampling frame, which contained a list of all elements of the target population (Groves et al., 2004). However, since Abu Dhabi is the capital city of the UAE and government organisations in Abu Dhabi are the biggest in the country, an Abu Dhabi-based organisation is a suitable sample that has all the characteristics of other government organisations. For the present study, and owing to the difficulty in accessing government organisations, the sampling frame includes Abu Dhabi Water and Electricity Authority (ADWEA) and its companies (15 companies) as a representative organisation of all UAE government organisations. The rationale for and justification of this selection are explained in more details in the section on case studies.

This project was conducted in two distinct phases. The first phase was an exploratory phase, in which information from 15 companies under ADWEA (appendix 1) was gathered by a survey, the purpose of which was to identify the most appropriate cases for case study research. The sample size chosen was expected to fulfil the requirements of all the statistical techniques used, as well as to justify the cost and time limitations of the researcher. The selected companies were requested to respond to the survey and staff from all levels to participate. The outcome of this phase assisted the researcher to identify the five companies for case study phase. A quota was used in selection of organisations and of participants, and an expert panel selected the five companies and individuals within those companies. Phase 2 started with the selection of the most appropriate organisations for case studies, for which the researcher used exploratory survey results to design the interview questionnaire. The criteria and rationale behind the final selection of organisations were explained in the exploratory survey results.

As highlighted before, the main objective of this study was to explore the influence of CSFs on the successful implementation of PMS in UAE government organisations and understand the level of impact of those CSFs on implementing PMS frameworks. The

sampling was designed to obtain information from expert staff within the selected organisations. The non-probability, purposive type of expert sampling technique was used in this phase as the most appropriate sampling method. Furthermore, the hierarchy within the organisation was considered and people from each level were selected to be part of the sample from that organisation. Thus, in each organisation, the researcher assumed that there were three levels: top management, middle managers and staff. Individuals from all these levels were involved in this study. This “vertical” distribution of people is part of the triangulation design of this research, increasing the validity and reliability of the collected data, as it will examine the level of understanding and involvement of PMS among all staff at different levels of the organisation. Also, it will create a solid background for data analysis and comparison within each company and between different companies for similar levels of staff.

Naturally, managers in the first level were regarded as the main source of information because they are directly responsible for the organisation’s business and performance. Staff at different levels were selected based on their involvement with PMS and their level of education to ensure best quality of data and the most accurate responses. This research was applied using a case study concept in the 5 most appropriate organisations.

To sum up, the sample in qualitative research should be as heterogeneous as possible and relevant to the subject being explored (Dick, 1990). Hence, purposeful rather than random sampling is more appropriate for qualitative research (Patton, 1990). This study used purposive sampling to identify interviewees. A total of 26 face-to-face, semi-structured interviews were conducted over a period of three months in five organisations. Initially, a small number of interviewees were selected based on their position in the organisational hierarchy and their role within the organisation. An ‘expert panel’ sampling technique was appropriate for this research, as it is concerned with a small number of specialised people who are knowledgeable in the researched area (Aaker et al., 2001). In each organisation, the researcher approached the managing director to support and facilitate the interviews. The number of participants from each organisation varied between four and six respondents.

3.8 ETHICAL GUIDELINES

In order to avoid violation of rules, the researcher obtained the necessary permission to conduct this research in the ADWEA Group of companies from the Director of Planning and Development in ADWEA. In this research, the rights of the respondents were considered and protected, so their confidentiality, privacy, protection from harm and discomfort, and their right to withdraw from the study at any time were guaranteed. These rights were particularly highlighted in the questionnaire guidelines. Moreover, the participants were informed of the study's objectives and methods and had the opportunity to choose whether or not to participate in this research.

3.9 PILOT SURVEY

Based on the rationalisation of the research needs, case study research method was selected to tackle the research issue. Using Yin's criteria (1996) for case study research, this research will be based on five case studies which will provide a richness of information. As discussed earlier in this chapter, case study method was selected as the most appropriate method to investigate this research issue. Hence, the development of the research methodology was developed around the case study method. The case studies are based on interviews supported by structure questionnaires, archival records and observation with senior managers and key staff.

The purpose of the use of multiple case studies and mixed data collection instruments is to increase the construct validity of the research. Moreover, this pilot study is introduced to enhance the quality of data and to allow the triangulation of data to increase the internal and construct validity of this research. The existing cases to select from are 15 organisations (Appendix 1); the objective of this pilot study is to identify the most appropriate 5 cases for the case study research.

The five case studies are selected on the basis of the following criteria:

1. Organisations size: bigger organisation size mostly involves more business complications and difficulties in managing performance. Such challenges may provide more insights about PMS implementation.

2. Interaction with stakeholders: more interaction with customers and stakeholders create more challenges on organisation to manage it PMS.
3. Experience with PMS: the maturity of PMS within organisations is another key criterion for the selection of company cases. De Waal (2003) highlights that the higher the maturity of the PMS within the organisations, the higher the possibilities to identify more factors and the stability of the outcomes.
4. IT infrastructure: as PMS heavily depends on data collection and data analysis, maturity of existing applications and tools support PMS is essential in the success of PMS
5. PMS reporting and management: the level of PMS application and usage in the organisation could lead to get more relevant impacts of PMS implementation

Based on the specific need for the pilot study, researcher was able to develop survey instrument for this purpose. This survey was designed based on the selection criteria. The objective of this survey is to explore PMS practices in the surveyed organizations and to make the right selection of the five appropriate organizations for the case study research. The ADWEA group of companies and Abu Dhabi Sewerage Services Company were included in this research, there were 15 companies that were approached during this phase as follows:-

1. Abu Dhabi Water and Electricity Authority - ADWEA
2. Abu Dhabi Water and Electricity Company - ADWEC
3. Abu Dhabi Transmission and Dispatch Company (TRANSCO)
4. Abu Dhabi Distribution Company - ADDC
5. Al Ain Distribution Company - AADC
6. Almirfa Power Company - AMPC
7. Emirates CMS Power Company -ECPC
8. Gulf Total Tractebel Power Company - GTTPC
9. Shuweihat CMS International Power Company - SCIPCO
10. Arabian Power Company - APC
11. Taweelah Asia Power Company - TAPCO
12. Emirates Semcorp Water & Power Company – ESWPC
13. Fujerah Asia Power Company – FAPCO
14. Ruwais Power Company- RPC
15. Abu Dhabi Sewerage Services Company – ADSSC

The survey questionnaire was distributed via email to 15 companies. Managing directors / directors were invited to participate in this survey. Out of these 15 companies, 11 companies responded representing 73 % of the target survey participants. The responses received did provide a statistically relevant assessment with good contribution to the research questions which has yielded some interesting results. In order to improve the validity and reliability of the responses, a few techniques were considered and implemented during the survey process such as:

- Use top management approval as a support document to encourage people to participate in this survey;
- Adopt triangulation method through asking for 5 responses from each organization to compare answers and check consistency and quality of answers;
- Communicate the request with organizations' Managing Directors in most of the cases, in few cases contact directly with Directors whom have personal relations with the researcher to ensure receipt of timely responses;
- Design the survey in a user friendly format and select a small number of focused questions that doesn't take more than 15 minutes to answer;
- Use check questions to ensure that the response is consistent and accurate; and
- Keep reminding participating organizations until their responses have been received.

In addition to the techniques described above and in order to evaluate the quality of the data collected the profile of participants was analysed. As a result, 26 % of the respondents are holding top management positions either in Director or Division manager level, also, 63% of respondents were in the middle management level at either department manager or head of section; this level of participation from middle managers gives great value to the quality and validity of feedback received.

However, senior management feedback gives even more value and confidence about the reliability and validity of the study as they are the decision makers that are the main users of performance measures, hence, having 89% of the responses from top management adds a great value to the validity to this survey. Notwithstanding the above, having a majority (61 %) of the respondents from middle managers provides and additional advantage, as they are the accountable for reporting all operational and

business results to the top management, so, they are the most active in managing and reporting performance indicators. This of course makes them a great resource for investigating practices and identifying gaps. This significantly enhances the validity of the study through the reliability of data collected.

Another important factor that was investigated was the profile of the participants' education level. Interestingly 48 % of respondents are holding either Masters or PhD degrees. This high level of qualification increase the expectations of better understanding of the research requirements, thus, it results in better quality of the feedback, as the people with this level of education understand both business and research requirements and are more precise in their answers. Also In addition to this, 44 % of respondents hold BSc degrees, which reflect a high level of education and consequently may improve the quality of data received.

An important factor analysed in participants profile was the years spent in the organization to ensure the best understanding of internal business and existing processes. In terms of years spent in the job for the respondents, all participants were found to be familiar with the business and all respondents had spent two or more years working for their businesses. 30 % of respondents have more than 10 years with the same organization and 15 % of respondents have 6 to 10 years within the same organization. 58 % have 2- 5 years within the current job. These results indicate a good basis for a high degree level of involvement with the business and sufficient direct experience to indicate reliable feedback. The survey was designed to investigate three areas namely company profile, PMS practices and any other observations that may add value to the research Based on the analysis of these criteria the potential candidate organizations for the next phase of the case study phase will be selected.

First, looking at organizations' profile such as the size, customers, staff, stakeholders and services, it has been found that ADWEA (organization and not the group) has the most significant role as the owner of the most companies, and it represents the decision maker for the sector. ADWEA reports the performance to the AD Executive Council and it is the focal point of all communication with the government and other major stakeholders. ADDC, AADC and ADSSC as distributors are the companies with the largest number of customers. They are the service provider for key services to the end

users and their customers more than 1.6 million. TRANSCO has a central role in the industry to link all IWPP's with ADDC and AADC. It also has external stakeholders such as other external entities – FEWA, SEWA and GCCIA.

IWPP's are small operational units and their headquarters are located in foreign countries, hence, their focus is limited to the operations and they depend on parent companies to run the business. Second, when reviewing PMS practices in the surveyed sample, it has been found that ADWEA group of companies have just begun the implementation of a BSC. ADWEA is still in early stages and only consists of basic frameworks with few KPI's. Notwithstanding this there is a running project to implement the latest approach of BSC which is entitled the Strategic BSC. For this purpose, ADWEA is working with a global consultant to build this framework. ADWEA companies are participating in this project, called ASTRO, which stands for ADWEA STRATEGIC TRANSFORMATION. This project consists of three phases; the first phase is about building a strategy for ADWEA and its companies, aligned with government strategy.

The second phase requires the building of initiatives, BSC and KPIs to manage the execution of that strategy; while the third phase is the implementation of the actions to achieve this strategy and measuring the performance. Further details on this project will be outlined in another section of this research. ADSSC is using a system called ARP to manage the performance and KPI's, this system required the production of monthly reports and assists the organization to measure its performance. The third group is IWPP's. It has been found that they are focusing on technical and operational part of business, therefore, they use some simple production tools and applications to measure technical and economic performance, but not necessarily business performance.

With regard to the Information Technology support, it has been found that ADWEA, ADWEC TRANSCO, ADDC, AADC and AMPC are using some IT tools that support management of business performance such as business intelligence (BI) and Customer Relations Management (CRM). In addition to this they used EFQM model during their participation in Abu Dhabi Award for Excellence program (in 2010-2013). ADSSC was found to be advanced in using IT support, as they used to be part of ADWEA group they have all systems used by ADWEA and they have additional systems such as ARP.

IWPPs have IT support on the technical side. They have some systems to manage operations, maintenance and inventory such as MAXIMO, Great Plains, and others. They do not have a specific system to manage business or performance. Another common practice across ADWEA fully owned companies is that all of them have established a department to manage their business performance. ADSSC also has a similar function established to manage business performance. None of the IWPPs has a specific function to measure performance.

Third area is about observations; hence, it has been observed that there is confusion between business performance and operations performance. There is also no formal process to monitor and report the performance and feedback to reflect inconsistency in describing the reporting system and understanding of performance management. Some companies have discussed implementation of unique systems used to manage the performance, such as QRP in AADC, ARP in ADSSC and AIS in ADWEC. Further research is required to investigate more about those systems and how they affect the management of performance.

As a result of this initial analysis and observations, the following companies found the best candidates for the case study phase:-

1. ADWEA: The parent of 5 companies and the major shareholder in all IWPP's. ADWEA is the decision maker of the sector and manages all major activities within its group;
2. TRANSCO: fully owned by ADWEA and possesses advanced business applications;
3. ADDC: the largest number of customers, it provides services to all Abu Dhabi; .
4. AADC: the second largest company regarding the number of customers and;
5. ADSSC: An independent company, fully government owned with large number of customers and it has advanced performance management practices. This group is fully government owned organizations and provides a solid platform for the case study research. Two ADWEA companies were not selected due to their smaller size and less experience with BSC and business applications, those are ADWEC and AMPC. IWPP's were ignored due to their limited business management locally as well as their complex business management models; the researcher decided to exclude them from case study phase. Table 3.9 shows the detailed analysis.

No	Company Name	Company Short Name	Number of responses	Company Size	Interaction with Stakeholders	Experience with PMS	IT infrastructure	PMS reporting and management	Overall Result
1	Abu Dhabi Water and Electricity Authority	ADWEA	1	Medium	Strong	Medium	Strong	Medium	Acceptable
2	Abu Dhabi Distribution Company	ADDC	5	Large	Strong	Medium	Strong	Medium	Acceptable
3	Al Ain Distribution Company	AADC	1	Large	Strong	Medium	Strong	Medium	Acceptable
4	Al Mirfa Power Company	AMPC	1	Medium	Weak	Weak	Strong	Medium	Rejected
5	Abu Dhabi Water and Electricity Company	ADWEC	1	Small	Medium	Weak	Strong	Weak	Rejected
6	Abu Dhabi Transmission & Despatch Company	TRANSCO	5	Large	Strong	Medium	Strong	Medium	Acceptable
7	Fujerah Asia Power Company	FAPCO	6	Medium	Weak	Weak	Medium	Weak	Rejected
8	Shuweihat CMS International Power Company -	SCIPCO	3	Medium	Weak	Weak	Medium	Weak	Rejected
9	Total Tractebel Emirates O&M	TTEOM	1	Small	Weak	Weak	Medium	Weak	Rejected
10	Gulf Total Tractebel Power Company	GTTPC	1	Small	Weak	Weak	Medium	Weak	Rejected
11	Abu Dhabi Sewage Services Company	ADSSC	2	Large	Strong	Medium	Medium	Medium	Acceptable
12	Shuweihat S2 Power Company	S2	0						
13	Arabian Power Company	APC	0						
14	Emirates Semcorp Water & Power Company	ESWPC	0						
15	Ruwais Power Company	RPC	0						

Table 3.9: Pilot study survey results.

CHAPTER 4

DATA COLLECTION, CODING AND ANALYSIS

This chapter presents the detailed responses of the interviewees about their experience and perception with regard to current PMS implementation, in particular regarding data on CSFs that were developed based on the literature review. These CSFs were classified into four groups based on their relevance, as follows:

A- PMS design and implementation

- 1 Linking PMS to organisational strategy
- 2 System design and integration
- 3 Continuous monitoring and reporting

B- People

- 4 Clear targets and business benefits
- 5 Top management commitment and support
- 6 Staff involvement in the system
- 7 Skilled resources running the system
- 8 Staff training and awareness

C- Technology

- 9 IT infrastructure and support

D- Processes

- 10 Effective data management system
- 11 Motivation and linking performance to incentives
- 12 Change management
- 13 Role of effective communication

Data analysis is spread over two levels. This chapter presents the first level of analysis, which involves comparison of interview data for each factor investigated. Then the diversity of CSFs is summarised in a number of categories or themes, which are justified by quotations from the interviews. This level is basic and descriptive in nature,

classifying data by what was said, without making comments or developing theories as to why or how. The aim of this level of analysis is to make sense of the data collected and to highlight the important messages or findings. The CSFs that will be reviewed in this chapter based on empirical data are PMS design and implementation.

This section outlines the major themes that emerged from the data and presents a high level classification and categorisation of findings, as well as a summary of respondents' feedback with samples of their responses. Detailed analysis is provided in next chapter.

A- PMS design and implementation CSFs

The first group of CSFs is related to PMS design and implementation and includes:

- 1 The link between PMS and organisational strategy
- 2 System design and integration
- 3 Continuous monitoring and reporting

4.1 THE LINK BETWEEN PMS AND ORGANISATIONAL STRATEGY

The Abu Dhabi Executive Council, the highest governmental body in the country, has set targets for all entities in the government to align their strategic efforts with the Abu Dhabi Vision 2030. ADWEA (Abu Dhabi Water & Electricity Authority) has set up a project with the aim of completely transforming their business into a more efficient, customer-focused, performance-oriented organisation, while simultaneously enabling the delivery of the Abu Dhabi 2030 Vision. In seeking to achieve the most suitable practice, the ADWEA Board of Management decided to adopt the Balanced Scorecard (BSC), the framework used by the Abu Dhabi Executive Council, is one of the best framework for performance management and for executing strategy. The BSC was viewed as a tool for achieving a balance between risk, cost and performance, while also meeting the needs of the wide range of stakeholders, both in the immediate and the long term. This project is called ADWEA Strategic Transformation (ASTRO). All organisations in this study joined ASTRO, which was launched in 2009. Thus, ASTRO has been instrumental in aligning the group's companies with the ADWEA strategy.

ASTRO is designed to establish a strategy execution framework comprising specific priorities, key performance indicators and initiatives to measure an organisation's performance, with the ultimate aim of boosting performance and enhancing alignment, interaction and collaboration with ADWEA and its group of companies. However, its outcome at a basic level is to facilitate the translation of the strategy into operational terms and enable its implementation by allowing the organisation to monitor its level of execution.

4.1.1 The Importance of Alignment between a PMS and Strategy

Five organisations were part of this case study to investigate the linkage between PMS and organisational strategy. Although the majority of participants in the interviews confirmed the importance of the linkage between organisational strategy and PMS, many had doubts about the strength of this linkage; indeed, only about one third of respondents believed that strong linkage existed. About 50% of the respondents said that linkage between PMS and organisational strategy was weak or immature, while a small number of respondents said it did not exist at all.

However, many participants stressed the importance of alignment between PMS and strategy. For instance, Respondent 5 said, *"I wouldn't necessarily from a relative point of view think that it is strong"*, suggesting also that the link should be strengthened in order to improve performance and dashboards developed to look at the indicators that are linked directly to strategy. Another comment that emphasised the importance of the visibility of the link with strategy was received from Respondent 18, who said, *"We need to have clear vision and use the right KPIs."* Similarly, Respondent 24 said: *Although we have the design in place, there is no clear link between strategy and KPIs. It isn't linked to day to day activities.*

As these arguments show, there is general agreement about the importance of having a solid link and alignment between PMS and strategy.

4.1.2 Strength of the Link between PMS and Organisational Strategy

The first group of respondents believed that there was a strong link between PMS and strategy in ADWEA. For instance, Respondent 6 said that PMS was well aligned with ASTRO. Similarly, Respondent 7 said:

Actually we designed our system in such a way that strategy formulation is tied directly to the way we measure our performance. You cannot achieve any breakthrough or any performance improvements unless you have a clear strategy. We have designed a system that really links strategy to what we do on a daily basis.

Respondent 10 agreed that the PMS was aligned with the strategy and outline objectives and KPIs for each level. While many other respondents expressed the same view, none of them provided any clear evidence or example of this strong link. In addition, it should be noted that most of the respondents in this group are mid-level managers working in business development departments that are responsible for the design and implementation of ASTRO (Respondents 6, 7 and 10 are, respectively, Senior QA Analyst, Senior Business Planner and Technical Adviser in Business Planning & Performance). This responsibility may cause them to take a defensive stance, whereas not many respondents outside this group described the system in the same way.

The second group of respondents, which represent about 42 % of managers and experts (11 out of 26) believed that there was a formal link created by the design of the ASTRO project, but in reality the link was weak and immature at certain levels. For instance, Respondent 1 said:

The link is immature at the moment because our strategy doesn't have smart objectives setting out where we want to go. These are desires, not necessarily strategies.

Having smart objectives means that certain KPIs are established, providing tools with which to measure the linkage.

Respondent 9 indicated that there was a link but nevertheless that there was misalignment between PMS and their strategy. On the other hand, Respondent 15 found fault with the design of the strategy, saying that the high-level part of the strategy was not working very well. Respondent 19 said that, “*So far, we have the foundations of a PMS, but the link with strategy is still weak.*” The same respondent highlighted the

importance of proper design, with clear linkage between PMS and strategy, and training as a remedial action.

The ASTRO project established directions and formal links, and many workshops and training sessions were conducted to promote the message. At the same time, the organisational strategy was reviewed and all related documents updated. Although there are undoubtedly problems in implementation or communication, it is interesting to find managers saying that there is no link at all. For instance, Respondent 3 said, “*We’re still missing the linkage between the two [PMS and strategy].*” According to the ASTRO design, linkage usually starts from top to bottom, by establishing KPIs for the organisation, divisions, departments and individuals. Subsequently, each KPI is linked to objectives and goals. Thus, some respondents seemingly considered that the current system did not adequately link an individual’s performance to organisational strategy.

However, the third group, which represents about 20% of all respondents, believed that either the linkage between PMS and strategy was designed but not implemented or it was completely missing. For example, Respondent 11 said:

We have identified performance management as a strategic pillar of a strategy, there is a linkage to the strategy, and we are on the way to applying and implementing it, but we aren't there yet.

Whereas Respondent 2 mentioned that the system was partially in use, Respondent 3 stated that the organisation was still finding its way and developing its capability for managing performance in alignment with the strategic goals. Respondent 3 added that the linkage between the top corporate layer and the middle management was still missing.

Feedback received from Respondent 4 indicates that the linkage does not exist or rather is in the planning stage:

We made it a priority to start by making sure that the concept is clear and the system needed to establish that line of sight and linkage between the strategic road map and performance management is understood by the team who is expected to deliver that system.

This argument was confirmed by Respondent 13, who mentioned that the team was now working to develop the system, which he hoped would be completed before the end of 2013.

Some respondents believed that the cause of this missing link was the misalignment between PMS and strategy. For instance, the strategy was determined by a team but performance management was led by a different team; as a result, there were no integration and harmonisation between the strategy and performance management (Respondents 25 and 8).

4.1.3 The Introduction of PMS as a Means to Implement Strategy

There is strong evidence that managers see PMS as a vital tool for the successful implementation of strategy. For instance; Respondent 5 said, *“PMS will allow us to have dashboards to look at indicators that are linked directly to the strategy.”* Likewise, Respondent 3 said:

“[PMS] is your tool; it is your dashboard. When you are driving a car, which is the organization, if you don’t have this dashboard to tell you where you’re heading, you are in trouble. You have to have this dashboard to tell you whether you’re going in the right direction or not.”

Other respondents strongly believed in PMS and thought it would improve the whole system now as well as in the future, which would in turn help the organisation to improve (Respondents 17, 22 and 25).

Other positive observations centred on the motivations that managers showed towards enhancing the PMS tools and their understanding of the need for improvement of the business. For instance, Respondent 3 said, *“Maybe there is some fine tuning that needs to be done so the decision makers have a better tool to monitor performance.”* Respondent 7 suggested identifying priorities for organisational improvement as a starting point for improving the PMS design.

Clearly, managers have an understanding of the value of PMS as a vital tool supporting the successful execution of strategy in the organisation.

4.1.4 The Link between Business Processes and KPIs

As has been seen, the majority of respondents reported that the organisation has a problem with linking PMS and strategy. Also, there were different ways of explaining the issue; some respondents described the link as weak or immature, while others found it missing or still under development. Moreover, the concept of a strong link between PMS and organisational strategy was not clear to everyone. Hence, the organisation needs to clarify and promulgate this concept to all stakeholders and implement it well. This requires linking KPIs to all business units' processes and functions and cascading KPIs to individual level. Respondent 22 observed that, *Completing the implementation and cascading the strategy KPIs to individuals could be a better solution.*

The importance of KPIs was explained by Respondent 5, who said:

“An indicator should be telling us where we are going, should be giving us early warnings about where we are going wrong and help us to make some vital decisions to bring us back on track.”

Respondent 7 focused on the simplification and correct selection of KPIs as a key component in the design of PMS:

“You could report thousands of KPIs but are they going to drive improvement? No, but if you have five or six key measures or indicators, that will have a dramatic effect.”

Equally, Respondent 13 stressed using KPIs for the important goals in the organisation. There seems thus to be consensus among respondents on the importance of the right selection of the KPIs to support the strong link between PMS and organisational strategy.

4.2 SYSTEM DESIGN AND INTEGRATION

4.2.1 Current Situation of PMS Design

The successful implementation of a performance management system (PMS) depends largely on its appropriate design. Thus, lack of focus and the inclusion of too many measures in the design increase the probabilities of failure of PMS implementation (Kennerley and Neely, 2002). The present study found problems with the design of the PMS in the case of the organisations studied. Some respondents believed that the

system as currently designed did not serve the purpose. For example, Respondent 21 stated that, *“The system is still not effective; it is not transparent and its design does not cover all levels of organisation”*, while Respondent 2 expressed his disappointment with the system, saying that, *“There are better systems out there.”* Hence, there is an overall lack of satisfaction with the system’s design. Interestingly, some respondents (for example, Respondents 1 and 12) at the managerial level had a less radical view and suggested minor modifications to make the system work better.

Respondent 24 found that the current system was not linked to day-to-day activities and Respondent 11 indicated that it was not effective. Respondent 11 explained this difficulty by saying, *“The reporting tends to be technical. How do we move it from the technical phase to the strategic phase?”*

4.2.2 Problem Sources

4.2.2.1 Poor design and problems in cascading PMS to all levels

In order to remedy any problem, it is necessary to understand its roots and causes. During the interviews, many managers indicated the possible common causes of the problem with current PMS design. Several respondents observed that the system was designed in isolation from end-users, especially from lower-level employees in the organisation. They were not involved in building the system, which caused problems at the implementation stage. For instance, Respondent 2 said, *“It was not managed by us; it was handed down to us by the parent company.”* Staff engagement was also very poor. Respondent 13 reported that the problem was that the system was not designed to engage the staff. Respondent 9 also commented that, *“I feel it is being isolated, not embedded in the business.”* Respondent 17 noted that most of the staff were excellent in operations but did not care about the performance of the business as a whole.

Problems in the design of the system observed during the interviews stemmed from the fact that the system was not cascaded to all levels in the organisation but was kept at the top level only, which created problems in managing and monitoring performance

consistently. Several respondents suggested that the system should be cascaded to all stakeholders in the organisation to create the desired change (Respondents 20 and 21).

4.2.2.2 Design over-sophisticated and not user-friendly

Ariyachandra and Frolick (2008) emphasised the importance of having an evolutionary development methodology for the system in order to implement it successfully. Many respondents too identified development and implementation as major weaknesses. Respondent 23 said:

“The model is there but the implementation is the difficult part. We are suffering with implementation, many things are not ready.”

However, a significant number of respondents reported that the system was not user-friendly. Respondent 1 indicated that it was easy mainly for experienced managers, whereas other staff had difficulties in using it. As Respondent 1 said:

“It is user-friendly for someone who knows what they doing: by that I mean experienced managers. For somebody who hasn’t got that experience it could be little bit confusing implementing new system like that.”

Respondent 5 added that the dashboard of the PMS was similarly difficult to use, and Respondent 2 said it was not user-friendly at all. Respondent 9 said that PMS should be linked with day-to-day activities to make it useful and that the system needed more simplification.

4.2.2.3 Design and selection of KPIs

Building the right measures and getting the right reports as well as the right results are the real value of a PMS. For instance, Respondent 5 observed that a lot of people spent time generating reports and indicators but felt that these efforts were not necessarily linked together, nor were the measures linked robustly to the organisation’s strategies. Another view on the value of the system was received from Respondent 25:

“The system looks isolated and takes data from reports and sends them to management, the system in the current shape is basic and it is just reports, nothing more.”

Respondent 7 concurred, suggesting that five or six key measures or indicators would be more effective than a multitude of KPIs. Equally, Respondents 5 and 13 stressed using KPIs for the important goals and to give warnings about where the organisation was going astray.

Respondent 3 argued that *“the existing KPIs might not be the right indicators for our strategic goals”*, and Respondent 1 took issue with the existing PMS design, observing: *“It seems at the moment we are more towards confirming recent performance rather than looking into improvement of future performance.”*

There was a view that the system was not properly designed to assist the whole business, which forced some units to find alternative solutions. As Respondent 25 said, *“We have developed our own system because we still see the system as limited; it is designed to report high-level KPIs but not KPIs for our units and sections.”*

4.2.2.4 Integration between business processes and PMS

There seems to be a problem in the link between PMS and current processes. For instance, Respondent 3 believed that the software was the easiest part of the whole process, consisting of readily available applications. According to her, what the organisation needed were a logical structure, an effective choice of KPIs and an infrastructure for collecting the critical data that fitted into those formulas. She added, *“The way we measure our performance is based on different sources of data and that creates the risk of inconsistency; no single point of truth.”* She also said that, *“The use of data is not effective, the management gets information but they don’t know how to react, because it’s basically not telling them anything.”* Respondent 25 explained that, *“Even though we have other automated systems, integration to one central software has not happened yet.”*

Moreover, some of the respondents were concerned with the implementation process of the PMS, which some, for example, Respondent 19, think was faulty. This was supported by Respondent 23, who found that many things were just not ready for full

implementation to happen. On this note, Respondent 7 suggested that PMS should be aligned with the organisation's overall systems, recommending that a performance-driven organisation should be created, in which an individual's performance would be compensated according to his or her contribution to business results, and in which PMS would be fully aligned with the budget.

Respondent 8 attempted to explain much the same point:

"The strategy was being determined but a different group was leading the performance management, and as a result there was no integration and harmonisation between the strategy and the performance management".

Thus, it is apparent that PMS integration was not well planned and designed in consultation with the rest of the key members of the organization.

4.2.3 Efforts to Enhance the Design

Most of the managers who participated in the interviews stressed that more work was needed to enhance the design of the system. For instance, Respondent 1, who is a Business Planning & Performance Manager, said:

"We are trying to make it easier. We don't need to enter a lot of data in the system; it doesn't need to be complex, it needs more time and effort in terms of developing KPIs and definitely it will be worth it."

Other managers such as Respondent 6 and Respondent 10 expressed similar views. Respondent 1 stated that having new system was a good idea provided that it was focused. Respondent 4 also identified the source of the problem of weak focus:

"The gap still remains in the linkage between the high-level declared strategy and direction and the initiatives at the working level. There are some elements of connectivity between the two. The vision is right but so far the initiatives and activities have not been connected properly."

Respondent 8 emphasised the importance of integrating PMS with other systems in the organisation and to make the system a fundamental part of the organisation's overall business. Equally, Respondent 21 believed that there were opportunities to improve PMS utilisation, integrate systems and use new methods to enhance flexibility and performance.

Respondents generally were at one on the importance of simplicity and focused design and on the right selection of KPIs. In addition, there is much evidence that PMS design requires major improvements, including the cascading of the system at all levels in the organisation and the involvement of all staff in its development and implementation. Also, PMS design should be simplified and made more user-friendly, and the system should be embedded in daily business by linking with day-to-day activities.

4.3 CONTINUOUS MONITORING AND REPORTING ANALYSIS

In order to manage its performance, the organisation usually builds Key Performance Indicators (KPIs); these KPIs are used as measures to monitor the progress of initiatives and give an indication about business performance. This process is called continuous monitoring and reporting of the PMS. It is one of the functions that keeps the PMS alive. Regular monitoring of the trend of business performance by top management motivates employees to get involved with the system. The monitoring and reporting process depends on different elements such as the regular reporting, the assigned core team to look after reviewing those reports before consolidating them into the senior management report, the review and monitoring by senior management, the actions taken as a result of the review, and the ownership of the process. Continuous monitoring and reporting also supports the values that the PMS is built on such as improving profitability, productivity, return on assets, and better customer satisfaction.

If this function is ignored and performance measures not properly monitored, the PMS becomes weak and may fail; thus the reason is the lack of a proactive review process which helps in detecting unexpected variation in early stages (Kennerley et al., 2002). Moreover, performance monitoring and reporting are crucial for maintaining a culture of transparency and high performance in the organisation. Also, it provides a focus on the required outcome to support the decision making process in the organisation (de Waal, 2002).

4.3.1 Current Situation Analysis

It was found during the analysis that senior managers are aware of the importance of a continuous monitoring and reporting system. Respondent 9 said that this is a very

critical matter and needs a lot of attention. Respondent 13 added: *“We have to use this as tools for effective communication throughout the organization”*. Respondent 1 explained the value of this activity when he said that:

“There is a lot of potential in terms of extracting live data, putting it into a suitable format, enhance KPIs matrix design, produce the right reports, and introduce dashboard approach to senior management”.

However, although the previous feedback from a group of senior managers confirmed the understanding of the value of continuous monitoring and reporting of PMS results, there are more findings on the current situation in the next section. The results were classified into two sections. The first section discusses the existing process characteristics, while the second section discusses issues related to inefficiency in this process.

4.3.2 Monitoring and Reporting Process

There is evidence that there is an existing process for performance monitoring and reporting; for instance, Respondent 1 explained the whole process as follows:

“Yes, we receive quarterly reports, I get copies of those. The results are reviewed by a core team who put individual reports together to be reviewed by the senior management team. Consolidated reports are reviewed by senior management to gain an understanding of company performance to see how the system working. If there is any failure it should be understood and action taken. The PMS system is run by the business planning and performance department as a central coordinator”.

The previous statement explains the process of PMS monitoring and reporting. It also provides strong evidence that there is a solid process in place for this purpose. Additional support for the previous argument was received from Respondent 2, who stated that they have a regular executive meeting that is specific to the actual quarterly performance report that is generated for management.

Additional evidence about regular reporting was reported by many respondents, such as Respondent 14 who said: *“We receive regular reports and of course we have monthly reports, we have quarterly reports and then we have annual reports”*. It can be said that these statements confirm the existence of the process and also provide evidence and

examples that prove the good level of implementation. Additional confirmation of the previous argument was received from Respondent 18 and Respondent 26. Moreover, according to Respondent 21, key staff has access to reports. By the same token, Respondent 25 said:

“As a manager I receive reports and I attend monthly meetings with management where we see the KPI results”.

This statement adds more validity to the argument of having a solid monitoring and reporting process. It also highlights some benefits of implementing this process effectively, such as communicating results to all key staff, aligning people with strategy and objectives, and encouraging performance improvement.

4.3.3 Department Managed PMS Reporting and Monitoring

Respondent3 also clarified more about the management of the process. He said that this process was managed properly because they have an office for business planning and performance that follows up. In a similar manner, he added that they have an executive management team that gets all the results and analyses the performance. Hence, it seems that there is clear ownership of the monitoring and reporting process, and there is strong evidence of good implementation. Other feedback confirming the previous statement was received from Respondent 7, who said:

“We are doing this on a quarterly basis; we have a template for performance reporting”.

More clarification about the roles and responsibilities of the performance department was explained by Respondent 26, who said:

“There is a sub-team established to review the results and give feedback to the Executive Management Team. During the quarterly meeting, the results are discussed at length and actions are generated to move the business in the correct direction”.

This statement provides evidence of the presence of an office managing the performance monitoring and reporting process within the organisation.

It seems that one of the driving forces for this activity to be effective is pressure from the government to receive regular reports on the organisation's performance. For instance, Respondent 8 said that they report performance KPIs to the government regularly. Also, Respondent 16 said that they use those KPIs to report their performance

to an executive council. The executive council is the highest body of the UAE government. On the other hand, Respondent 6 justified the implementation of monitoring and reporting as a requirement for ISO 9000 when he said that:

“We have got an integrated management system, which is in line with the ISO 9000 management system. With that, there are monitoring and measuring mechanisms like internal audits have been conducted, external audits have been conducted, and management review meetings are being conducted”.

It is apparent that there are other additional reasons behind a commitment to reporting: some organisations have established new departments called business performance support. The purpose of the business support department is to look after business performance as part of the PMS. For example, Respondent 12 said: *“Now we have a business support department; they are following everything”*. Another organisation uses a strategy planning unit under QA/QC to do monthly and quarterly performance reporting to the government (Respondent 17 and Respondent 19).

However, it has been found that there is overall satisfaction among respondents on the continuous monitoring and reporting process. For instance, Respondent 12 expressed his satisfaction by saying *“It is good”*, while Respondent 15 said: *“I think we have a good process here; I can say we reached about 80-85 % of the good process”*. Another positive feedback was received from Respondent 7, who said:

“Because of continuous review we are closer now to starting to look at what concrete actions we can take”.

4.3.4 Weaknesses in Monitoring and Reporting Process

Although the previous discussion and analysis furnished substantial evidence that there is a well-established process, some respondents' feedback indicates a few weaknesses in the process. This part of the analysis explores those weaknesses and gaps that contribute towards making the process ineffective. For instance, Respondent 18 stressed the need to establish an effective monitoring system. Another comment was received from Respondent 10, who stated that: *“reporting and feedback and regular review are very important; we have weakness in these areas”*. Respondent 3 also highlighted the weakness of the process as it doesn't have an outcome. Thus, he said: *“Until this day I*

did not get any feedback telling me that ... something need[s] to change". Moreover, Respondent 6 said that even though they have the mechanism in place, it will not be very effective. More precise argument was received from Respondent 15, who said:

"I can say there are some KPIs in our organization, but they are not linked with the evaluation of performance. Practically it is not monitored, it is not followed by management, where we are and how much we implemented".

Hence, it seems from the above statements that there is some disconnection in the process, where KPIs do not measure the required performance. Also, those respondents claim that there is no effective monitoring and no close follow up; as a result, the process of reporting and monitoring is not effective, as the management and staff cannot see any valid results.

Additionally, there are more examples that shed light on more roots of the weakness in the monitoring and reporting process. For instance, Respondent 23 stated that there is reporting and monitoring, but actions after that are not effective. Similar views were received from Respondent 18, who said: *"the problem is in the follow up actions, I don't see proper follow up"*. Hence, it appears, as per the previous statements, that the problem is not in the monitoring and reporting, but it is in the next stage where actions are generated.

Very interesting feedback was received from Respondent 20, who suggested that the main sources of weakness in performance monitoring and reporting come from two root causes, which include:

"One is the inaccuracy of data because a lot of data may be submitted but unfortunately may not reflect the reality of the situation. And the other thing is that we don't have data analysts. So there are no people that are actually today look[ing] at this information and actually build[ing] reports on it that can be made useful further on in the organization".

Another valid reason for weakness in this process was presented by Respondent 7, who said:

"If you ask me what is the quality of our reporting, the way we analyse things, the way we identify the challenges and put forward recommendations and take actions on them, I think for all these, we still have a long time to reach that level".

Thus, he clearly stated that the real objective of PMS is yet to be achieved, and it is not enough to make reports on performance, although there is a strong need to analyse those reports and develop some recommendations and ideas for improvement with an action plan to get the benefits of the system.

So, it is obvious from this statement that there is a need to improve these two areas: manage data quality and analyse data for better understanding. This is a key element to enhance the efficiency of performance monitoring and reporting as well as to achieve the successful implementation of the PMS.

4.3.5 Managers' Role in Monitoring and Reporting

According to the respondents, senior leaders often take bits and pieces from the PMS and do not utilise the system effectively. Also, the limited visibility of performance reports by top management and lack of automation and availability of such information to all key staff is another reason for poor efficiency of this process (Respondent 17 and Respondent 22). Furthermore, Respondent 11 and Respondent 5 claimed that effective, continuous monitoring is not in place, and the performance monitoring is seasonal.

Summary for PMS design and implementation CSFs

Evidence from the analysis above shows that there is a process in place, but it is not as effective as it might be. Thus, in order to implement PMS successfully, further effort is required to close the gaps and enhance the efficiency of continuous monitoring and reporting of performance results. Continuous monitoring and reporting support the values that the PMS is built on. Among respondents, there is overall satisfaction with the process of monitoring and reporting, but some issues and weaknesses need to be resolved, such as managing data quality and analysing the data for better understanding. Further analysis on this matter is presented in the next chapter.

The importance of the link between organisational strategy and PMS was confirmed by the majority of participants in the interviews, who also agreed on the importance of the right selection of KPIs to support this link. Managers clearly understand the value of PMS as a vital tool supporting the successful execution of strategy in the organisation..

The appropriate design of the PMS was found to be essential for successful implementation. The present study found problems with the design of the PMS in the organisations studied and difficulties in cascading PMS to all levels. It was found that PMS design was often over-sophisticated and not user-friendly, that KPIs were not properly selected and that there was weak integration between business processes and PMS.

B- PEOPLE CSFs

The following section is discussing CSFs related to people, as follows:

- 4 Clear targets and business benefits
- 5 Top management commitment and support
- 6 Staff involvement in the system
- 7 Skilled resources running the system
- 8 Staff training and awareness

4.4 CLEAR TARGETS AND BUSINESS BENEFITS

It is vital that the organisation believes in the PMS and all staff understands the business objectives of this system (Kaplan and Norton, 1996a). This requires convincing, and the best way to do this is by explaining the expected benefits on all levels. Also, motivating people by adding performance incentives and setting personal targets for them as target setting either at the organisation level or at the staff level is an important part of PMS development (Blasini et al., 2013). Furthermore, those targets should be aligned with organisational strategies and objectives to be effective. In addition, setting clear targets supports key functions that drive business performance (Locke and Latham, 2002). Having clear targets assists employees in understanding the organisation's purpose behind the business to enhance productivity and efficiency (de Waal, 2002). Nevertheless, having all staff see the business benefits is an important element for successful implementation of the PMS. If business and personal benefits are not seen, then there is a high risk that staff will not be motivated to be part of the PMS implementation (Radnor and Lovell, 2003).

However, this analysis focuses on exploring the level of clarity of PMS targets and business benefits to organisation staff. In order to assess that, the analysis will try to find answers to the following two questions: (1) Why does the organisation implement the PMS? (2) Do people see the value and benefits of the PMS? During the analysis, it has been found that there are different views: a group of respondents believes that there is a good understanding of PMS targets and objectives within the organisation, while the other group believes that this understanding is limited to senior staff. Therefore, the rest of the organisation is in darkness and does not know what is going on. The following section highlights these views.

4.4.1 Importance of Setting Clear Targets

Another supporting argument about the visibility of the benefits of having the PMS was explained by Respondent 2, who said that the organisation uses the PMS to find out how it is progressing towards improving its performance. Additional feedback received from Respondent4 on the importance of showing benefits to staff is that:

“Make sure that people can see the benefit from that system and they feel that they will be recognized truthfully in their performance, and it will be successful”.

Similarly, Respondent 12 confirmed that the only way that staff will make more effort to participate in the system implementation is if they feel that it is for their personal benefit. In another related piece of feedback, Respondent 15 stated that people will accept the system if they see any signs of benefits.

More evidence was adduced from the first group of senior managers, who believe that the PMS targets are clear, and its benefits are clear as well. For instance, Respondent 2 commented on staff impression: *“They are all very interested because it makes their job a lot easier”*. Likewise, Respondent 16 supported this argument and provide more evidence of understanding the PMS targets and benefits when he said that:

“PMS is an excellent idea; it doesn’t require huge efforts compared to its return, definitely it is worth all efforts, if the system was implemented properly, it will help the organization to work better. Currently, KPIs results help us to a certain level to understand our performance and to improve in specific areas”.

A second group of respondents' feedback indicates limited clarity of PMS targets and benefits among staff. For instance, Respondent5 said that the PMS is not absolutely clear. Also, Respondent 8 stated that there is not enough understanding of the objective. Respondent 17 said that not everybody understands the system goals. Another comment was received from Respondent6, who said:

“The KPIs, which they have set at a very high level, need to cascade down to process level so that the people will know what the targets and objectives are to be accomplished, ... then it will be very easy for them to perform”.

This statement indicates the problem in cascading targets to individual levels, which was discussed in the design section and also in the awareness section. This view of the staff accepts continuous improvement; notwithstanding, there is a need for them to understand their targets. Feedback was received on the lack of interest among staff in adopting the PMS, as they do not see any benefits from it, and thus it becomes a theoretical exercise on paper (Respondent9, Respondent 17, and Respondent 19).

4.4.2 Clarity of Targets and Benefits To Managers

This approach led to much evidence demonstrating that the purpose of the PMS is understood by senior managers but not well understood by lower staff. For instance, Respondent3 said about the PMS:

“It is your tool; it is your dashboard when you are driving a car which is the organization. If you don't have this dashboard to tell you where you're heading, you are in trouble and you have to have this dashboard to tell you that you're going in the right direction or not”.

More feedback was received from other respondents who believe strongly in the PMS and think it will improve the whole system as well as the future system, which will help the organisation and people to improve the business (Respondent 17, Respondent 22, and Respondent 25).

A good technical criticism for the current targets was received from Respondent3, who said:

“The strategy defines that goal and vision where the organization is heading, the measurement is to see how far we are from that goal; the current KPIs might not be the right indicators for our strategic goal, so maybe our strategic goals are not very well defined, trial and error and tuning, we are still in that stage”.

The above statement shows a high level of understanding of what should be the right targets of KPIs and a clear understanding of expected outcomes from the PMS.

Furthermore, there is an argument that there is weak clarity of PMS targets among the organisation management. Also, the organisation management does not utilise the PMS to get the maximum benefits of it. Hence, although it is there, it is not used effectively due to other weaknesses in the process. For instance, Respondent 20 said:

“I have not seen an example where the output of the system is integrated into the organization’s day-to-day operations in an effective way. I think that leadership is beginning to take bits and pieces from PMS generally speaking. But it is not being taken into discussions as much as it should be at the board level, at the senior management meeting level, and these are key factors that need to be taken into consideration and need to be integrated throughout the organization governance model”.

4.4.3 The Visibility of the Value Added by PMS to Individuals and Business

Interesting feedback showing a high level of seeing the value and benefits of the PMS was received from Respondent20, who explained the objective of having a PMS, as follows:

“I think that these systems are a way of the future. In terms of performance management, in terms of data management, in terms of information management we live in an information age and people with quicker, faster, and accurate information are those who prevail. At the end of the day, people will always be looking at what is the value of using a system, what is the value of integrating all this information, and it is just not a question creating new processes”.

So, this statement elaborates a good understanding of the PMS objectives by senior staff and confirmed the importance of people seeing the value coming from the system; otherwise, it will not be more than another process in the organisation.

Furthermore, Respondent11 stated that people understand the benefits of the PMS. Additionally, according to Respondent24, most of the employees know the PMS value, and the same was reported by Respondent 18, who said:

“Most of the staff is aware of the system benefits, I think the picture is clear, I believe that PMS helps staff in their work and they don’t need any further motivation”.

Another interesting piece of feedback was received from Respondent 1, who showed a good understanding of system targets and benefits when he stated categorically that:

“We use PMS because we try to improve our performance to become a better organization, we spend good money to be more efficient and effective in our spending and provide high quality service to our customers. So it is important to understand what is our current performance. I don’t think we do as much as we could do; it seems at the moment we are more confirming recent performance rather than looking into improving future performance. That is probably the biggest area of opportunity we have actually to make the system drive future performance and improve the business - a lot more drive from top management to have the right KPIs driving the right behaviours, and the focus on the past and not forward performance”.

Thus, it can be seen that Respondent 1’s statement provides evidence of a good level of understanding of system benefits and targets. Such a good level of understanding and healthy debate within the organisation can help to fine-tune the targets and achieve better results.

Furthermore, there is evidence that lower staff does not see the benefits and does not understand targets as well as senior management. This is a result of the fact that they are not aware of or not involved in the system. For instance, some respondents believe that the picture is clear for management, but it is not for other levels. The PMS is used by top management to establish good governance and direction, but the high-level indicators are not relevant to the lower levels of the organisation (Respondent 19 and Respondent 26). Moreover, supporting feedback was received from Respondent 26, who sees the benefits of PMS as more clear at the senior management level.

However, although there are two different views on this, the evidence regarding having a good level of clarity is more solid. On the other hand, it seems that most of the issues relating to the weak clarity of targets and benefits are related to other reasons and root causes such as poor awareness, weak design, or poor motivation, which were analysed and discussed in other sections in more detail.

4.5 MANAGEMENT COMMITMENT AND LEADERSHIP SUPPORT

Top management has a major role to play in the development and implementation of the system, such as setting up and participating in project committees, and should be heavily involved in formulating and establishing policies and objectives. Moreover, they have a responsibility to communicate the system's objectives and goals to the organisation, ensuring that the system is aligned with organisational strategy, overseeing implementation at all levels and evaluating progress in light of results achieved, as well as providing all the necessary support, training and resources to make the system successful.

4.5.1 Senior Management Commitment and Support

Respondents agreed about the importance of senior management commitment and engagement in PMS development and implementation. For instance, Respondent 9 noted that, *"People doesn't see strong leadership in this area. I would like to emphasise the importance of leadership."* Respondents 12 and 21 stressed that senior management were required to demonstrate leadership, be fully engaged and give their full support to the process. Likewise, Respondent 16 said, *"Top management ownership and support are extremely important to make the system work."* Respondents (Respondent 8 was typical) repeatedly expressed the need for the actual involvement and participation of senior management at all stages of the project, from early development to implementation.

Five major themes emerged during analysis of the data: weak commitment from senior management, limited involvement of senior management, weak leadership skills, weak sustainability and the limited visibility of PMS values and targets.

As Morisawa and Kurosaki (2003) have noted, management commitment needs to be demonstrated at all levels within the organisation in order to promote the culture of performance management. Participants specified that this commitment would not be effective unless the leaders participated in setting targets and objectives, approving business plans, ensuring appropriate resources were allocated for the project,

communicated the mission to all levels, monitored and controlled progress and were involved in the implementation to the end. Respondent 3 said:

“What I think would change this from an academic exercise to an actual driver for the business is commitment from the leaders of the organisation”.

Indeed, as Respondent 19 confirmed, the low level of commitment from senior managers influenced staff commitment to the system as well. Management needed to be continuously involved (Respondent 16).

One of the most important traits in leadership is being a role model for the staff. Unless they show a great deal of belief in the system, the staff will not believe in it.

“If you are a director and if you are not asking for performance do you expect your people to ask for performance?” (Respondent 7). Similarly, Respondent 6 said: *“They need to be engaged, they need to act as role models, they need to come and look forward, they need to meet the people, discuss with them and see what issues they are facing and then provide the necessary resources and support. This will also give people a big moral boost”.* Respondent 13 added, *“We have a shortfall and gaps in this area, as the commitment and support, in the form of leadership coaching, do not exist.”*

4.5.2 Limited Involvement of the Senior Management

One of the common problems in business improvement projects is the limited involvement of the senior management (Kennerley and Neely, 2002). This can cause the project to encounter difficulties at all stages. Lack of management involvement undermines the organisation’s efforts (Respondents 6 and 7).

This study found an evident issue with senior management engagement. For instance, Respondent 1 said:

“The PMS was signed off by the senior management team in principle but the detail of that work was delegated down to nominated individuals. I don’t think there is a great deal of engagement”.

If senior management delegates leadership to lower-level staff, this gives the wrong message to the organisation about their interest in the project and its priority for the organisation. In some other cases, senior management initiated the project and showed keen interest at the beginning but their interest declined at the later stages of the project.

Respondent 3 recalled that, *“Senior management were heavily involved at the beginning of the project but they withdrew later on.”* Involvement throughout on the part of senior management was generally found to require improvement (Respondents 8 and 9).

Not only should top management be committed and engaged (Respondents 5 and 6) but it should also be their responsibility to try to involve all staff in the project (Respondent 21).

4.5.3 Weak Leadership Skills

Many comments identified that senior managers lacked the leadership skills that would allow them to execute their roles effectively. For instance, Respondent 12 said:

“The point again is that it’s the responsibility of the managers to cascade the benefits and to convey the message or to illustrate and demonstrate the benefits of the system”.

Equally, Respondent 13 found leadership coaching to be lacking and Respondent 17 noted that people follow leaders.

People have high expectations of leaders, as Respondent 16 explained:

“Top management ownership and support are extremely important to make the system works. They need improvement and continuous involvement”.

Clearly, senior managers need to do much more than sign off documents and approve the project. They should also review the design elements, agree on all the KPIs and ensure that the systems progresses well in the right direction in line with organisational strategy.

“Personally I don’t think support from top management is effective. A lot more drive from top management is needed to actually have the right KPIs driving the right behaviours”. (Respondent 1)

The same argument was echoed by Respondent 9. Respondent 19 pointed to a lack of professionalism in managing PMS and a weak decision-making process.

Respondent 7 blamed the leaders for spending most of the time doing things that department managers could do:

“The success factor for that honestly is the leadership being engaged and driving the organisation and changing their mindset, instead of spending most of the time doing things that a department manager can do. If you are a director and if you are not asking for performance, do you expect your people to ask for performance?”.

As Respondent 21 remarked, weak delegation of authority is an example of poor leadership; people do not feel empowered and all decisions are centralised. Other respondents (11 and 19) accused leaders of failing to communicate the plan to all their staff and of giving weak support and guidance (Respondent 22). Respondents agreed that support from the leadership for the PMS project had been weak, either for lack of interest or because of weak leadership skills, but in all situations there was a gap in this area which needed to be filled.

4.5.4 Weak Sustainability (Declining Interest, Low Priority, Busy Schedule)

Analysis of participants' feedback revealed another theme, namely the continued support and prioritisation of business tasks and activities. Interestingly, it was found that many managers gave more attention to their daily work and less to strategic organisational initiatives. As Respondent 25 put it: *"Top management follow up the results, see the reports, but maybe they are not giving the system much of their attention; they use it but they don't adopt it"*. Respondent 4 thought that the interest of senior management sometimes faded because of their busy schedules. Respondent 25 said:

"There was a lot of enthusiasm in the beginning, but when it became reality, I mean the design completed and it had reached implementation stage, their interest declined; maybe they are busy with other things".

Other respondents substantiated the point. For example, Respondent 24 said that, *"It is seasonal. When there is occasion or meeting, they remember, [but] I don't see it as a part of [their] daily work"*. Respondent 4 insisted on the need to ensure sustainability from the top leadership and Respondent 23 blamed top management for not looking for continuous improvement, adding, *"They approved the project and they supported it, but they don't have time for close follow-up."* Respondent 3 confirmed that senior management were heavily involved at the beginning but less so after formulating the basic structure.

The consensus from respondents was that continuous support and striving for sustainability in managing PMS were severely lacking.

4.5.5 Limited Visibility of PMS Values and Targets

Understanding the benefits of PMS is crucial, as it is the main driver for successful implementation (Olsen et al., 2007). Unless people have a completely clear understanding of its value, they will not be motivated to own it and use it, and the risk of its failure will be much greater. This is particularly true of senior management, as they are the ones who will lead the project. Thus, Respondent 3 stated:

“I think there should be very good leadership, very clear targets, good leadership and clear targets, then a performance management system would work. It’s not complicated but there is, I think, something missing from the leadership of the organisation”.

Also, Respondent 2 said that the management did little more than just extract the reports. As Respondent 12 asserted, it was the responsibility of the managers to cascade and demonstrates the benefits of PMS throughout the organisation. The visibility of PMS values and targets, especially at top management level, was found to be a cornerstone for the successful implementation of PMS and any limitation in this area would have a negative impact on the system (Respondent 7).

4.6 STAFF INVOLVEMENT IN PMS

Allowing employees to be involved in strategic project planning and development provides them with a sense of belonging and empowerment (Ongori, 2009). Yet, the involvement in decision making could be in different forms; for instance, staff may be involved in decision making for operational issues related to their daily work and departments functions, while senior management is involved in strategic decisions setting the direction for the organisation.

Furthermore, there are other benefits of staff involvement such as building a teamwork environment, increasing staff satisfaction, improving retention of talented staff, and enhancing commitment and motivation.

However, staff involvement in PMS development and implementation is important and crucial for PMS success as per respondents’ feedback, although the feedback provides evidence of better understanding of staff involvement in PMS success. This feedback also revealed some views of problems in this area; for instance, Respondent 23 said:

“Staff involvement at each stage is the key for ensuring a project’s success. We can’t achieve our goals without involving our staff in the whole process; to be honest, we are not there yet”.

Another respondent mentioned that there is a need to develop something called an employee engagement scheme where all employees will get the chance to be involved in the project (Respondent 7). The same respondent gave an example of the importance of staff involvement and commitment when he said that:

“There is research that says if you have 10% of your organization staff committed to a certain strategy, the probability of success is extremely high, i.e., with only 10% of your employees involved, you can achieve great success”.

Another statement on the importance of staff involvement in developing the system was received from Respondent 18, who said: *“Without staff involvement, strategy will not be successfully implemented”.*

Despite agreeing on the importance of this matter, it has been found that there are different views and sometimes contradictions about staff involvement. For instance, Respondent 14 said that there is high involvement, while Respondent 9 believed that the involvement of staff is weak. Another comment on limited involvement of staff was received from Respondent 20, who said that:

“First of all, if systems are not well planned, and the selection of these systems is not something that has been done in consolidation with the rest of the key members of the organization, then that may be harmful to the organization. On the general level I don't think that most staff is capturing the potential that these systems have”.

However, further detailed analysis about staff involvement was conducted and classified into five areas as follows: staff engaged in developing the PMS, linking the PMS to daily work, the level of using the PMS in the organisation, the level of interest among staff, and staff awareness about the PMS.

4.6.1 Staff Involvement in PMS Development and Implementation

In general, there is evidence that senior managers and upper-level staff in the organisations have a good level of involvement in designing the system as well as are

assigned to roles in implementation. Respondent 26 said: *“The necessary resources at the upper level of the organisation were engaged to establish the first system, and it has been largely successful in achieving the outcome”*. On the other hand, there is a common agreement among the participants that lower staff is isolated and not engaged in the PMS design and implementation. For instance, Respondent 1 explained his experience with the system when he said:

“I have some input into it in terms of developing some KPIs and objectives; there were some differences in views in the early days of developing the system, but we were working with ADWEA during cascading the system to lower levels”.

Respondent 13 stated that: *“Staff involvement is important for PMS success. We are always trying to engage them to meet the company goals”*. This statement indicates that there are efforts to engage staff. Another indirect comment received from Respondent 3 explained the plan for implementation of the PMS thus: *“I think we have to do it with existing staff, because nobody understands the business more”*. This means that it is not happening yet, and again it confirms the limited involvement of staff in the system implementation. Similarly, another piece of feedback that indicates limited involvement was received from Respondent 4, who stated that it is necessary to *“involve the staff in the direction, in the strategy”*. Moreover, Respondent 2 described the system as follows: *“It’s not user-friendly, it was not managed by us, and it was handed down to us by the parent company”*. This statement makes evident the limited involvement of key staff in the organisation. Interestingly, more support for the previous argument was received from Respondent 16, who said: *“the problem is that the system doesn’t involve all staff; in the upper level of staff there is a sort of awareness, but in the lower level it is much less”*.

In the same vein, an interesting clarification was received from Respondent 20, who said:

“I think it is a phased approach, in my opinion, because we have tried in my previous experiences to create something or a system that is customized to our particular needs. But then you realize one thing: how can the people on the ground - who have never used these systems - design these systems? They are going to create very complex systems; not user-friendly at all”.

Although it is obvious that respondents suggest that the type of staff involvement and the level of staff involvement need careful consideration, the key staff should be capable of doing high-level design, middle-level staff can design KPIs, and lower-level staff should understand and implement the PMS.

As a PMS aims at managing the overall performance of the organisation, it needs to be cascaded to all levels and report performance up to an individual's level. Hence, it is designed to be used by all staff. However, there is evidence that the system is used by senior management and key staff only and not by all staff.

This limited use of the PMS by key staff creates weak involvement and results in lack of ownership by staff. For instance, Respondent 1 said:

“Yeah I think the staff having direct input into it is aware, but the visibility of the system is limited to those users involved in producing the consolidated reports and senior managers see the reports, so the wide staff doesn't see the company performance”.

This statement was confirmed by Respondent 24, who said that staff in managerial positions and staff working with the system are the only people involved in the system. The rest of the organization has very little involvement if any. From this observation, it seems that the key users are middle managers, who are responsible for collecting data from the field and reporting to the senior management, so this group is the heavy user of the PMS. Respondent10 explained this point when he said that: *“we just have partial involvement especially by middle managers and poor involvement in upper and lower levels”*. Limited involvement of staff, especially at the lower level, and the need to cascade the PMS to more stakeholders was reported by many respondents (i.e., Respondent 17, Respondent 18, and Respondent 21).

Detailed clarification was received from Respondent 1, who said:

“It is user-friendly for someone who knows what they are doing; by that I mean experienced managers who know what a balanced score card is and KPIs are intended to do. For somebody who hasn't got that experience, it could be a little bit confusing implementing a new system like that”.

However, Respondent 3 has a different view about the staff involved. Hence, he stated that: *“I think it’s not everybody needed to be involved, but at least the key people who are managing the people should be involved”*. So, it can be concluded that the involvement in the PMS is limited to key staff, mostly in middle management positions.

4.6.2 Limited Awareness of Impact of Staff Involvement

It is worth mentioning that involvement of staff can be divided into two parts, the official involvement, which is the participation by invitation for some tasks, or doing some tasks as part of daily work requirements. The other part is the optional one, which means the employee having the chance to use the system to do advanced tasks such as review his function performance or produce regular reports for his section. Both of them require proper awareness and training, and without having the right education and awareness, employees will see barriers in using the system and, as a result, they will try to avoid using it.

Therefore, awareness will result in better involvement of staff in using the PMS, as Respondent8 commented:

“To achieve the target and ensure high-level staff engagement in the system, they have to receive proper awareness and training, the training and awareness should target those people involved in the system, but it should spread to reach all users”.

There is evidence that there is a sort of awareness and training in the organisation. For instance, Respondent 3 stated that they have plans for awareness: *“through the various ways of communication to all the staff and at all levels and in all locations with different languages even trying to educate and widen the awareness of our staff”*. Respondent 22 confirmed this, but, nevertheless, said that: *“Efforts for staff involvement and training are at a moderate level, but there are opportunities for better jobs”*. Thus, one of the issues in the training is that it is limited to senior staff. Therefore, senior staff is aware of PMS elements and objectives, but lower levels are less aware (Respondent 16 and Respondent 17). In the same way, Respondent1 explained that the information about performance is shared in quarterly meetings. These meetings are attended by managers and key staff only, which means that performance results are limited to key staff. Hence, he said that: *“we have the quarterly update meeting to exchange information and results with other members”*.

As a result, it can be concluded that the level of training and awareness needs to be extended to all staff at all levels in order to enhance the level of involvement and achieve the best results of the PMS.

4.6.3 Lack of Interest and Weak Ownership

A few respondents have reported an apparent lack of interest in the PMS among staff. For instance, Respondent3 said: *“Unfortunately not only junior, but some senior members of staff, and some middle management are not interested”*. Similarly, Respondent 25 said: *“Staff is not that interested, they don’t see any change”*. Another comment was received from Respondent 15, who said: *“We need people to believe in this system”*. Yet again, another comment was received from Respondent 10 who said: *“You need buy-in from all to achieve real ownership”*. These statements indicate that there is not enough interest in the PMS among staff. Respondent 25 thinks that the reason for this lack of interest is that the staff does not see the benefits and value of the system.

The majority of respondents said that the system is linked to their daily work, while others believed it was not. For instance, Respondent 1 said: *“There are some links to my daily work”*. Also, Respondent 7 added: *“We have designed a system that is a really linking strategy to what we do on a daily basis. So, it is not really extra work”*. Furthermore, Respondent16 stated that *“many people in the organisation are using the PMS to produce and read reports”*. This means that PMS is a part of their daily business.

On the other hand, the other group of respondents claimed that the system is isolated and not linked to staff daily work. For example, Respondent 25 said: *“the system looks isolated; staff involvement is limited as the PMS takes data from reports and sends them to management, and the staff doesn’t feel it ...”*. It is clear that this argument stated that the PMS design does not involve staff effectively. As per the feedback received, it is like an academic exercise, just taking data from different sources and compiling them in high-level reports that are sent to senior management. Nevertheless, this process does not assign clear responsibilities to staff in reviewing reports and presenting them to senior management with a clear understanding of the contents. Furthermore, this

argument was supported by Respondent 20, who said that: *“there are few people within the organization that really know how to use the system and can actually make it useful in day-to-day activities”*. To solve this, Respondent 22 suggested that if the design is right, then by default staff will be involved.

Consequently, Respondent 20 came up with an interesting argument and said that:

“You can't just come in and say well, let's develop a PMS and everybody today needs to fill out these forms. This is why a PMS will fail because there is no buy-in, and there is no cultural change. You need to be able to really work hard on changing the culture and changing people's understanding and basically changing the way they are used to working”.

So, he emphasised the importance of staff ownership and belief in the system. In addition, he believes that this can be achieved through proper change management processes. The tool he suggested to make this change is to embed the system in daily work. Notwithstanding, he added that, if the PMS was embedded in staff daily work, then chances for success are better.

4.7 STAFF SKILLS AND COMPETENCIES

Competencies encompass knowledge, expertise, skills, intelligence and aptitude - personal and behavioural - required for successful implementation of a PMS (Kennerley and Neely, 2002). In addition, there are other characteristics and attributes of a person that impact on their productivity and performance such as beliefs, motives, values, traits, habits, social roles, and the environment that enable a person to deliver. However, as the level of competencies and skills within the organisation is a vital factor and an enabler for PMS success, this study investigates this matter to assess and understand the current situation.

Moreover, the analysis has found differences in views among respondents. Some of them believed that the level of existing skills is suitable for running the PMS; another group believed that the existing level of in-house skills can run the PMS, although it needs more improvement through training or external support; while the rest of the

respondents believed that there is a lack of skills required to run the PMS. Thus, the subsequent section discusses these different views in more detail.

4.7.1 Proponents of Right Skills Presence

The majority of respondents, about 60%, believed that the existing skills are appropriate to run the system. For instance, Respondent 1 said:

“I think we have the right skills to organize PMS. I think still more efforts are required to educate staff involved in reporting. I don’t think we need external expertise to support us; we do have in-house capacity to do it”.

Respondent4 stated that he doesn’t believe that the organisation requires special skills and competencies to run the PMS. Moreover, Respondent 2 believed that the level of existing skills is intermediate in general, but he added that there are competent staff within the function of business planning and performance who have the right skills that will help other people in the organisation manage the system. A question and answer that summarised the story was received from Respondent 7, who said: *“Do we know what to do? Yes, we do”*, which indicates confidence on the existing competencies and skills.

However, the PMS was designed by external consultants, and there is a strong belief that the rest of the work such as implementation, reviewing and fine-tuning KPIs, as well as reporting can be done with the existing resources, and there is no need for the further hiring of consultants (Respondent 5 and Respondent 10). This argument was supported by Respondent 3, who said: *“I think we have to do it with existing staff, because nobody understands the business more than the insiders”*. Also, Respondent 2 believed that many off-the-shelf PMS tools available in the market are simple and can be fully integrated without the need for special skills.

Similarly, Respondent 16 stated that:

“I think PMS doesn’t require special skills but the leadership and ownership. We used a consultant in the design stage, but we started implementation by our staff and we feel we are doing well”.

The same idea was repeated by other respondents who confirmed that there is a great mix of skills and quality people, well-educated staff, and strong infrastructure, and they believe that the organisations are doing well and don't need any external support (Respondent 15, Respondent 18, Respondent 21, and Respondent 24). Some respondents believe that the system implementation is basic and does not require very special skills. For instance, Respondent 25 said:

"We have excellent people in the business. They deal with all systems. It is basic and doesn't need any external expert to run it - our people can do it. PMS is not that complex".

Also, Respondent 26 added that the PMS does not require much skill to populate it. Nevertheless, Respondent 22 confirmed that and explained the internal strength when he said:

"We are proud that we have a strong local team, young staff, open minds, customer focus culture, and ownership".

The last comment was received from Respondent 26, who said that the organisation has suffered at the hands of too many external consultants, where it just requires robust, simple, internal efforts to make the PMS work for the business; he thereafter added that the staff does not need training in the use of the existing PMS, as it is simple.

4.7.2 Proponents of Limited Skills Availability

The second group believed that there is skilled staff within the organisation, but they require some training and improvement on the specific skills to implement the PMS. According to Respondent 5, there is a need to build internal competencies, as the existing competence level is down to the novice level. In addition, Respondent 6 stressed the importance of staff competencies to be aligned with PMS requirements to give the desired performance. The need for competency framework review was stated by Respondent 6, who said:

"We do have skilled people, experienced people and there is no doubt about it but it's an important stage as I said that since there is an organizational change and vision change, also, the plan change we still need to have a review of our competency framework".

According to Respondent 14, the internal staff is capable of running and implementing the PMS, but all that they need is to get some training, he said: *“we can even utilize the existing staff after training”*. Moreover, Respondent 13 suggested involving external parties to build the process and system and then train the staff for implementation. Another similar suggestion was received from Respondent 8, who said: *“We have the experience to depend on ourselves, but still we have some gaps, we need experts to lead. It is better to bring somebody who is an expert in this area”*.

Thus, it can be said that these suggestions confirm the availability of competent staff within the organisation to manage the PMS, but those skilled staff need more specific training and awareness provided by experts in the field to improve their skills in this area. However, according to the feedback received from Respondent 15, some of these efforts have started, although the specialised training is provided only at the senior staff level. Thus, he opined that:

“In the beginning we hired a consultant to train managers, especially middle managers and head of sections, to understand the performance management”.

Hence, it is obvious that the PMS users are not only senior and middle managers, but it is used by all staff. Therefore, it is appropriate if these training and education efforts continue to cover all levels in the organisation.

4.7.3 Shortage of Skills and Resources

Although the third group of respondents believed that there is a shortage in the specialized skills needed for PMS implementation, nevertheless, the tone of this group was not that strong towards lack of skills. Most of them indicated weaknesses or reasons, such as lack of resources. For instance, Respondent 11 said:

“When it comes to performance management, we do have weakness in terms of the level of skills among employees throughout the sector companies”.

A similar comment was received from Respondent 17, who said that the lack of many crucial skills is a big challenge. Moreover, according to Respondent 16 and Respondent 19, the shortage of professional skills is prevailing within the organisation, and they desperately need specialized skills, as this shortage becomes a real challenge that affects the whole business outcome.

On the other hand, some respondents think that the PMS cannot be managed in-house with the existing resources, unless the organisation brings the right people in to manage it. As an example, the monthly performance progress meeting was stopped due to a shortage of resources (Respondent 7 and Respondent 14). Respondent 7 added:

“When you see the head office, it is full of people but how many of them have the right skills and the motivation, I swear very few. These are the challenging things”.

To sum it up, it is obvious that Respondent 7 suggested that people with the right skills and proper motivation are required to manage the PMS, but staff with this quality is not enough to run the system, and more people are required. Another proposal was received from Respondent 11, who said that there is a need to hire a few people that have the right skill in this field to support the business.

Respondent 12 stated that the sources of the problems are in two areas, the first is the lack of experience in this area and the second is the shortage of staff assigned for the PMS. Another supporting statement was received from Respondent 13, who said that if the organization would like to cascade goals to lower levels, there will be challenges as lower-level staff lack the required skills and competencies. In addition, Respondent 23 confirmed this when he said that: *“We don’t have all the skills we need”*.

A comprehensive description about staff competencies and skills required to implement the PMS was received from Respondent 20, who said that:

“Who are the people that are qualified to talk about PMS? Who are the people that are qualified to implement it? Who are the so-called ambassadors for the PMS? Who are the key coaches or subject matter experts in actually implementing the PMS? This is a skill set that I think can be gained, and it can be trained around to basically gain this insight knowledge. At the end of the day, it cannot be just one or two people; it has to be a full team approach to basically drive the changes required. Knowing your human capital talent, assessing your human capital talent, taking on decisions down to the individual level is a key element of a needed success or tool that will ensure success”.

In summary, the previous discussion highlighted that the presence of certain levels of competencies and skills within the organisation is essential for successful

implementation of the PMS. Also, it can be said that there is evidence that competencies and skills are not an issue in the surveyed organisations. There is much evidence that the required skills and competencies needed to implement the PMS are available in the existing workforce. Although some respondents stated that some training is required to ensure the best outcome for organisational resources, it seems that this is a manageable matter.

4.8 STAFF TRAINING AND AWARENESS

Nowadays business is dynamic, and changes are happening every day. In order for staff to effectively maximise every opportunity for business success, they need to be aware of any changes either internal or external to the organisation that could influence performance (Kennerley and Neely, 2002). To achieve that, an organisation has to pay a lot of attention to staff training and building awareness on a continuous basis. Moreover, an organisation needs to consider an effective strategy for staff development and training. This strategy should aim at helping staff to improve their skills so as to contribute to overall performance improvement. Nevertheless, staff training enhances the capacity, job loyalty, job satisfaction, motivation, and productivity (Zhang and Bartol, 2010). So, it is a basic requirement to get the proper awareness, education, and understanding of the PMS system among employees. The need for awareness and training is clear to the staff. For instance, Respondent 20 said:

“Continuous development and training are required to adapt to the system changes in this modular world that we are living,... you have to have a program that can really help to capture the changes and also find a way to pass on this new change or information to the manpower or the human capital that you have in the organization”.

Clearly, in the previous quotation the respondent emphasised the importance of dissemination of information. Also, he added that such good awareness and training will enable staff to understand the system very well so as to achieve the desired goals.

Furthermore, people's appreciation for and acceptance of the system or resistance to accept and use the system are strongly linked to the lack of awareness and understanding of the benefits of that system. Also, the same happens if the organization

does not have a clear vision in using such system (Morisawa et al., 2003). Hence, training and awareness building are prerequisite for any introduction of new systems, such as a PMS, in the organisation.

The following discussions have been classified into four areas: the good level of awareness and understanding of the PMS, the need for more training, the efforts for improvement, and the proper design of training and awareness building programs. These areas will be discussed in further detail in the next sections.

4.8.1 Level of Awareness and Training Provided

Staff awareness and understanding of PMS objectives are essential for system success (Kaplan and Norton, 1992). A number of respondents believe that the PMS is easy and the current level of awareness is sufficient. For instance, Respondent 1 said: *“There is quite in-depth understanding of the system across the business; I think the training and awareness that are provided to people are sufficient”*. However, on another occasion, the same respondent said *“I think still more efforts are required to educate staff involved in reporting”*. Similarly, he commented in another instance: *“Yeah I think the staff having direct input into PMS shows that awareness is present, but the visibility of the system is limited to those users involved in producing the consolidated reports and senior managers see the reports, so the wide staff doesn’t see the company performance”*. Apparently, contradictory statements were reported during an interview. It seems that there is some degree of awareness, but it is limited to users and senior managers.

Respondent 4 has an evident of the good awareness, he said:

“I find that awareness is happening really well in a professional manner through the various ways of communicating to all the staff at all levels in all locations with different languages. Even we are trying to educate and widen the awareness of our staff with regard to strategy, direction, and progress”.

Respondent7 claimed that the PMS training was successful when he said: *“Our people say that this is one of the most beneficial trainings they had”*. Moreover, Respondent11 explained the outcome of the training provided by the organisation: *“In terms of the*

training itself, I think ADWEA and group companies are doing a good job in this area”.

The last related feedback was received from Respondent 25, who believed that:

“The concept of the system is easy, and I don’t think that people find it difficult. Staff is aware of it, not the details but the concept and the meaning of KPIs”.

It seems that there are a few people who believe that the system is simple and does not require any additional training. However, the majority do not agree with this idea. The following section elaborates more on other views.

4.8.2 Poor Design of Awareness and Training Plans

More than 65% of respondents believe that the training and awareness that have been provided were either not sufficient or limited to system users and senior managers. For instance, Respondent 3 said: *“We have many things that are missing such as training, coaching, workshops, etc. that are required to achieve the PMS results”.* In addition to that, the same was reported by Respondent 14, who said that there is a need for more training. Furthermore, Respondent 15 believes that senior management has a good understanding of the PMS, but general employees need more awareness. Another view was received from Respondent 21, who said that the training provided is proper, but it is limited to a small group of staff. According to Respondent 16:

“Staff awareness is essential. We organized many workshops and assigned champion to help in leading the change, the training was limited to small groups and not all levels were involved. Basic training and awareness is important to introduce the system to people, and more training is needed to extend the knowledge to more people”.

This argument was supported by Respondent 19, who said that: *“staff awareness is a little bit weak, and more education and training is required”.* Another comment was received from Respondent 18, who stated that there are a few trainings in place, but it is not sufficient in number and depth of coverage. He also added that a well-organized training should be designed to meet business needs. Also, Respondent 22 clarified more on training when he said that: *“training is less than average; staff involvement in training is at a moderate level. We can do better”.* Other respondents nevertheless mentioned that not everyone in the organisation knows about the PMS and that

communication on this issue is weak, and there is great room for improvement in training to cover more staff (Respondent 22, Respondent 23, and Respondent 24).

Respondent 1 also stated that *“Visibility of the system is limited to direct users who are involved in producing the consolidated reports and senior managers who receive the reports. So the wide staff doesn’t see the company performance”*. This statement was supported by Respondent 12, who stated that some of the lower-level staff is aware, whereas some still need more awareness. Moreover, Respondent 5 believes that middle managers are aware of the PMS, but below the middle manager level, employees are too involved in gathering data, putting reports together, and losing the whole point of how the PMS links into the strategy. Evidence of the weak level of awareness was provided by Respondent 6, who said:

“This year we have given around 280 people awareness about the performance management system with group companies, but still if you compare the 7000 employees all over the group, it is very little....”.

This indicates that a very small number of staff has received the necessary awareness, while a large number of employees still do not receive the proper awareness. However, although there is some progress, more awareness is needed to cover all staff and more effort is required in this area (Respondent 10 and Respondent 12). In relation to that, Respondent 17 said:

“Senior staff is aware of PMS elements and objectives, but lower-level staff is less aware. Although trainings have been provided, it didn’t cascade to lower staff. Field people should be involved in more as they are the doers”.

Accordingly, it is obvious from the large amount of evidence provided that training and awareness is limited to key staff in the organisation, and more effort to extend it to all staff at all levels is required.

4.8.3 Lack of Awareness and Training Strategy

Although there are some efforts to provide training and awareness to staff about the PMS, some respondents do not think that this will help in solving the problem. Hence, they believe that unless the training serves the purpose and meets the organisational

objectives and needs, it is useless and does not add any value. For instance, Respondent 6 said:

“The training needs to be strategically organized so that it meets the business objectives. The people should know what their targets are, and only then will it be very easy for them to perform”.

Strong support was received from Respondent 18, who said:

“We have training, but it is not enough in both quality and quantity. It should be designed to meet business needs; we need to have well-organized training”.

Obviously, the above statements indicate an agreement on the importance of the solid link between training programs and needs. To meet the objectives of the PMS, the training must be well designed. In addition, all the respondents believed indirectly that the existing training and awareness programs are not at the appropriate level and do not provide the expected outcome, as they are not well designed to support the organisation’s strategy and business requirements. However, to achieve the target and ensure high-level staff engagement in the PMS, they will have to receive proper awareness and training. People did not buy into the system because of improper preparation and awareness (Respondent 8 and Respondent 22).

There are many comments about the weak design and improper preparation of training and awareness programs. Some respondents suggested some solutions to overcome this problem. For instance, Respondent 20 suggested that the organization should assess and understand the current situation before starting any training or awareness program when he stated that:

“Before you begin to make any interventions, any communication plans, you need to know how knowledgeable people are in the organization with such a system”.

Also, Respondent 9 suggested that more selective training is required. It is important to give the right training to the right people. While Respondent 19 believes that the training provided is not effective, he also believes that there is no effective communication from management to staff about the PMS. Hence, it is not only a training program, but also more of a communication strategy including training, awareness, and top-down communication.

Respondent 14 explained the reason behind the ineffectiveness of awareness about the PMS among general employees: *“Maybe the campaign for implementation and encouraging people to buy the system was weak”*. Another bit of feedback was received from Respondent6, who suggested that the staff does not need to know the full integrities of the whole system; they need to know specific information that relates to what they are supposed to manage. In such a case, they will have a better understanding.

Thus, it is apparent that there are many views on the root cause of the ineffectiveness of training and awareness efforts within the organisation. And so, the above statements claimed that it is either the poor campaign design or the poor scope of training behind this result. More comments show that there is a lack of clear training and awareness strategies. Respondent 11 believes that the responsibility for staff awareness is on each director and each manager to ensure that the staff who is working under them is aware of the PMS.

The last comment pertaining to how to improve the current situation was received from Respondent 26, who said:

“The training required is educating senior members of the organisation on how to use a PMS to drive the business towards efficiency and effective outcomes. Good business management skills are what is required to understand the value of a PMS and how it drives a business”.

From the above, it is clear that there are other points of view on the causes of the weakness of the training system. Some attributed that to the absence of a clear strategy for training, while others linked it to the inappropriate programs for the required skills.

However, according to the above statements and discussion, there is clear evidence that there are gaps in the training and awareness in both quality and quantity. Also, there is no clear strategy for training, awareness, and communication of the PMS within the organisation. Hence, further review of this study is required to improve on the situation and achieve better results of PMS implementation in the organisation.

4.8.4 Efforts to Improve the Awareness and Training Quality

Based on the feedback received from many respondents, there is strong evidence that there are few on-going efforts to improve peoples' understanding and awareness of the PMS in the organization. For instance, Respondent 6 said:

“There are enormous efforts being taken by the management in creating awareness to the people. This year we have given around 280 people awareness about the performance management system with group companies, but still if you compare this to the 7000 employees all over the group, it is very little”.

Furthermore, Respondent 7 mentioned that each month there is a training organised for an average of 25 people from the group companies. Thus, these statements demonstrate that there are efforts to educate staff about the PMS.

On the other hand, Respondent 16 stated that:

“Staff awareness is essential; we organized many workshops and assigned champions to help in leading the change, trainings were limited to a small group of employees and did not include all levels of employees. Basic training and awareness is important to introduce the system to people, and more training is needed to extend the knowledge among more people”.

The same argument was received from Respondent 3, who said the following about the PMS:

“We host many awareness sessions throughout the organization to make sure that not only us but everyone is aware of the strategy, the performance measuring, and how they are involved as well”.

In summary, improved awareness does not relate only to training, but extends to the type and the quality of training. Not only that, but are these efforts in line with organisation objectives? Some feedback answering these questions is in the next section.

SUMMARY FOR PEOPLE CSFs

Clarity of PMS targets and business benefits to the organisation's staff is one of the important factors for PMS success. During data coding, it was found that there are different views: one group of respondents believes that there is a good understanding of PMS targets and objectives within the organisation, while another group believes that this understanding is limited to senior staff, while the rest of the organisation is left in the dark and does not know what is going on. Further analysis is presented in the next chapter. Senior management commitment and engagement in PMS development and implementation were largely accepted by respondents. However, five major themes emerged during analysis of the data: weak commitment from senior management, limited involvement of senior management, weak leadership skills, weak sustainability and the limited visibility of PMS values and targets. More analysis about these themes is presented in the analysis chapter.

Staff involvement in PMS development and implementation is crucial for PMS success, according to respondents' feedback, although evidence was found of the importance of understanding of staff involvement in PMS success. This feedback also revealed certain other views of issues in this area. The data coding results were classified into five areas: staff engaged in developing the PMS, linking the PMS to daily work, the extent to which the PMS is used in the organisation, the level of interest among staff and staff awareness about the PMS. More analysis on these themes is presented in the next chapter.

The level of existing skills required to run the PMS was investigated. The majority of respondents believe that the required skills and competencies needed to implement the PMS are available in the existing workforce. In addition, staff training and the building of awareness are prerequisites for the introduction of the PMS. The previous discussion explored four areas: the good level of awareness and understanding of the PMS, the need for more training, efforts towards improvement and the proper design of training and awareness building programmes. Improved awareness relates not only to training but also to the type and quality of the training. Moreover, it has to be considered whether these initiatives are in line with organisational objectives. Some feedback on these questions is presented in the next chapter.

C- TECHNOLOGY CSF

This section discusses the data collected about information technology (IT) infrastructure and different IT applications in use, as well as the utilisation and support of IT for PMS implementation within the organisations. Based on the literature review, only one CSF related to the technology and IT reviewed in this study, namely

9: IT infrastructure and support.

4.9 IT INFRASTRUCTURE AND SUPPORT

In spite of the enormous investments in enterprise initiatives, many organisations still face difficulty finding the information they need to support decision making (Poon and Wagner, 2001).

In many cases, most of the information is still based on simple spreadsheets to perform key business activities such as planning, budgeting, and forecasting. However, in such an environment, leaders are not able to gather, analyse, and act on information to deliver high- value, strategic insights. Therefore, with the growing importance of information management, the role of Information Technology (IT) as an enabler is becoming very critical for business success (Melville et al., 2004).

One of the well-known consultants working for the Abu Dhabi Water and Electricity Authority (ADWEA) has reported the following interesting findings in his business analysis report (Achieving a strategic transformation in the Abu Dhabi Water and Electricity Authority - The story of ASTRO Project, 2011):

“The technical competencies of ADWEA were high, but the necessary management expertise and performance management tools were lacking. There was a clear imbalance between the development of the technical areas and the support functions. A good example of this was – that although the organization had cutting-edge information systems – the information from these systems was not properly integrated and articulated around decision making ... and sometimes managers wondered if they were even looking at the right information”.

This observation supports the argument of having an issue in the IT function. Hence, further investigation was carried out to understand more about the IT problem and its roots. Interestingly, it has been found that there is a strong belief among senior

managers in the organisation of the IT role and its importance for Performance Management System (PMS) success. Managers see it as an effective tool used to manage data and produce reports. Thus, Respondent 1 stated that there is a lot of potential for IT. Similarly, Respondent 14 said that the role of IT in PMS success is very vital. The value of information technology and information management to the PMS was confirmed by Respondent 20, who said: *“an IT system I think is a very critical part of any PMS”*. Another respondent added that using IT to automate data is one of the key functions that support information management, and it is expected to make dramatic improvement (Respondent 24). Whilst there is a good understanding of the role of IT in PMS success, it has been found that there are many issues affecting this role. These issues were grouped in the following areas.

4.9.1 Utilization of IT in the Business

Although IT is very advanced in the case study organisations, one of the common themes observed during interviews and during analysis is the poor utilization of IT; for example, Respondent 12 said: *“We have the best IT in the world, but utilization is not as proper as we want”*. In the same way, Respondent 22 and Respondent 9 indicated that the IT infrastructure and applications are very good, but there is a real need to utilize them more to get more value out of them. Respondent 11 explained that what is needed to be done better in terms of IT is better utilization and better linkage between the systems. Another supporting feedback was received from Respondent 4, who said:

“No doubt we do have the foundation, the top applications. But these remain very confined and limited in the application and the utilization to the extent we are not using maybe, in my opinion more than 20% of its capabilities”.

It seems that there is an agreement among respondents that the infrastructure and applications are there, but the gap is in the utilization and proper use of those systems. What is meant by low utilization is that the software has many functions built in, but some users, due to some reasons such as lack of proper training or wrong design, still do not use the software effectively. They do part of the work manually and consume a lot of effort and time to produce reports, while if they use the system, it will take much less time and effort.

4.9.2 Automation of Data Collection

There are many reasons behind low utilization; the most important one is the limited automation of data. IT systems consist of many applications, and each application serves as part of the business. For example, Oracle is used for financial data, MAXIMO is used for Asset and inventory data, and HRMS is used for human resources data. To produce reports from those systems, data needs to be collected from different sources; this collection still was not fully automated and staff needed to enter many data manually. The capability of the system to collect data automatically from different sources and store them in a central database to be used smoothly whenever needed is very limited. For instance, Respondent 1 said: *“No automation has been done yet, currently we are working manually”*. Respondent 2 has also confirmed that he prepared his team process information manually. So, the system is manually updated and presently there is no intelligence built into auto-populating the system (Respondent 26). Another argument came from Respondent 3, who said:

“Very little automation, I would say if you tell me other than the visualization, it’s all pretty much manual”.

Some respondents reported that there are efforts to move towards automation, and so they had already started in that direction (Respondent 8, Respondent 14).

Respondent 26 said: *“TRANSCO has considered an automated system but presently it has not been rolled out due to its complexity”*. Maybe some additional applications are required to facilitate the automation and integration of different systems in a central system; this was highlighted by Respondent 25, who said: *“it is still manual and we don’t have any software to manage the system”*. The need for a tool to support the automation was also stated by Respondent 2, who said:

“The possibilities of automation are there, so we know that it can happen; the framework is absolutely fine, but it is necessary to have the tools to help us automate it right now”.

According to Respondent 1 and Respondent 25, the data required from other sources in the organisation to support the PMS is still not automated. Manual feeding still is the norm, which creates difficulty for the PMS; nevertheless, there is work in hand to automate this process. Similarly, Respondent 8 stated that a lot of effort is required to automate data entry and build a strong database support for the PMS.

Finally, Respondent 3 mentioned an important point. She said:

“The IT support for automating that PMS is a little bit tricky because our information infrastructure has not been adjusted to match our new strategy”.

However, this statement really raises a big concern about the alignment between the IT strategy and PMS requirements. Thus, the impact of having an IT strategy and the value of using IT tools to support the PMS were investigated further in the next section.

4.9.3 IT Management

Although the majority of the participants confirmed the presence of a strong IT infrastructure and advanced applications, it seems that there is no specialised system in place to manage data and support the PMS. For instance, Respondent 1 said that he is not aware of any software to manage data. Also, Respondent 20 indicated that the systems that are available are very basic and do not serve the principles or the philosophies of a full-fledged PMS. On the other hand, despite the fact that most respondents have agreed on the importance of IT to run the PMS successfully, Respondent 16 has a different view where he believes that the PMS does not require a complicated IT system to support it.

Some respondents believe that the existing systems are capable of managing data and supporting the PMS. For instance, Respondent 4 said: *“No doubt we do have the foundation, the top applications”*. The same argument was repeated by Respondent 12, who claimed that the available system can be utilized to accommodate all the data automatically. Hence he added that:

“ADWEA and the group entities today have a good system; we have Oracle and others. I don’t see any problem in the IT, we have excellent systems, the best in the world”.

Respondent 18 and Respondent 19 expressed the same opinion. However, it seems that the objective of having the hardware and software has been misunderstood. Nevertheless, the latest applications and the most advanced systems are available in the organisation, but they are not customised to do the critical functions. So, it appears to be a matter of the optimum use of IT tools, not the existence of them.

However, although the feedback received from many respondents confirmed that there is no system in place that has been customised to support the PMS, many of them stated

that there were plans to develop a new system that will support data management and PMS implementation. For instance, Respondent2 said:

“We’re also working in parallel to have a corporate-wide electronic data management system put in place to manage our knowledge and our data, which we lack currently”.

Furthermore, it was confirmed that the organisation considered an automated system, but presently it has not been rolled out due to its complexity. Moreover, respondents indicated that there is scope for improvement in establishing a complete solution - a robust one that can help the organization in managing the PMS (Respondent 13, Respondent 26).

According to many observations, one of the main causes of IT problems is the lack of essential skills and resources capable of managing it effectively. With regard to this, Respondent 1 believed: *“there is a lot of potential for IT; we just need to have IT capability to be able to feed the system and produce information in a suitable report format”*. Moreover, Respondent 4 added as follows:

“Unfortunately we still use those applications in very classical and conventional ways. We have not moved on with the enablers, with the technology, and to strengthen the system with the capability to support decision-making through computerized tools and facilities; this is an area that needs serious attention”.

It is obvious from the previous discussion that senior managers in the organisation are not happy with the way IT systems are managed and utilized. They believe that the outcome is very low compared to the capabilities of the system and the investment made, and so they see a great potential for IT in managing the PMS and the business as a whole. Another example came from the experience of developing a tool to manage the PMS and how it is implemented. On this note, Respondent 2 opined that:

“Once again, we were not very happy with the implementers of the performance scorecard tool nor are we happy with our own IT services”.

To understand more about the root causes of this dissatisfaction, Respondent 3 tried to explain the reasons when he said that:

“Any IT initiative fails because the IT group contacts the business users directly, and there is no one in the middle to translate the business requirements to IT requirements”.

So, it seems that there is an issue in the IT management and in the way managers handle the initiatives. Similarly, another issue was mentioned by Respondent 15, who said that: *“the decision in getting what we need - either software, hardware, or management system -is very slow”*. Moreover, Respondent 26 is not happy with the method of implementation of IT applications; he believes that it is not a professional way to build any IT system in one shot. Thus, in his view, it should be gradually implemented to allow staff to build knowledge in using the system, i.e., once the existing system is mastered, then one can move on to more sophisticated IT applications. However, all these comments indicate dissatisfaction of the way of managing IT.

When the service ownership was investigated, it was found that the organisation outsourced IT service to external companies. Hence, Respondent 25 said: *“We have outsourced this service”*. Although the organisation kept a small group as a focal point, it has been found that there is not much involvement of external staff in this system (Respondent 1). So, it can be said that the service was outsourced to external parties for maintenance and hardware issues, while the applications and software are still managed by the small team within the organisation. This therefore caused an overload, as the small team cannot manage all the issues relating to the applications and, thus, the numbers needed to be increased. Respondent 2 reported: *“our team consists of me and another individual. So we are under-resourced”*.

However, it seems from the previous discussion that the organisation needs to investigate and review IT strategy, IT design, and IT utilization and try to improve IT service to support business performance. Also, it seems from the respondents' feedback that technical support is not to be expected due to a shortage of staff in this area. Therefore, this is one of the problems that needs to be investigated and solved.

4.9.4 IT Strategy and Governance Mechanism

Several interesting comments and feedbacks were received from participants about the overall IT infrastructure and applications and their expectations from the system. Respondents also noted their vision of IT in the future. These observations and comments shed light on a very important area strongly linked to organisation IT strategy. Hence, it has been found that there is evidence that there is no clear IT strategy established in the business. For instance, Respondent 15 said: *“we have gaps between*

our requirements and what we have". Similarly, Respondent20 stated that the systems available are very basic and do not serve the principles or the philosophies of a full-fledged PMS. In addition, Respondent 3 described her view of the appropriate IT infrastructure. She maintained that IT is effective and can serve the purpose if there is: *"the information infrastructure that identifies the data which is critical for the business, managing it properly, ensuring its quality, ensuring it's capturing the right data, and knowing how to use it"*. It is obvious from all these statements that there is an absence of such vision and clear IT policy and strategy.

Another piece of evidence that there is a lack of an existing IT strategy is the statement made by Respondent 26, who stated that:

"I view it far more important to get the fundamentals enshrined in the business as opposed to moving toward highly automated systems that could divert focus away from the basics". In addition, another piece of feedback received from Respondent 13 explained the existing system as follows: *"We have scattered information that helps in producing reports, but we do not have a system to analyse the data and translate it into action for further improvement"*. Yet again, this statement supports the argument of not having an effective IT strategy that identifies the requirements and objectives of the system.

Others, such as Respondent 2, explained his vision for the software that manages the PMS as follows:

"We would like this system to generate the values and results on its own. So at the click of a button, the report is produced for management to make their decision".

On the other hand, more feedback received (from Respondent 11 and Respondent 24) was on another important strategic function that needs to be reviewed and solved. Thus, they stressed the necessity for better linkage and integration among different systems. Even though there are some automated systems, integration into one central software program did not take place.

Interestingly, the importance of IT for the success of the PMS was confirmed by senior managers in the surveyed organisations. While this is well understood, there are many issues connected with the role of IT, such as poor utilisation of IT, limited automation of data, the lack of a specialised system in place to manage data and support the PMS and the absence of vision and a clear IT policy and strategy.

D- PROCESSES CSFs

This section discusses the CSFs related to processes within the organisations, including the following CSFs identified as critical in the literature review:

- 10 Effective data management system
- 11 Motivation and linking performance to incentives
- 12 Change management
- 13 Role of effective communication

4.10 EFFECTIVE DATA MANAGEMENT

As good quality data is essential to manage performance, it is essential to have a reliable data management system. The organisation has to secure appropriate policies and practices in relation to data quality, collect the right data, and build a proper database that supports the organisation's strategy and objectives. Moreover, the organisation should have the right tools and applications to support data management (i.e., IT and software packages) and use the data for analysis and for reporting in a way that can be fully understood.

The importance of effective data management on PMS success is highlighted by senior managers in ADWEA organisations. For instance, Respondent 22 said: *"Personally, I see having the correct data and automation of data entry as the most important factor for PMS success"*. This argument was supported by Respondent 13, who stated that data is the main requirement to manage and evaluate performances. Other participants believe that accurate data is a prime requirement and is essential in improving the PMS and supporting the decision making process (Respondent 2 and Respondent 9).

Respondents have highlighted several areas of weakness and gaps in data management. Thus, four main areas of weakness in data management include the lack of the data management process, poor data quality, inefficiency in the use of existing data, and lack of appropriate tools to support data management. These themes will be discussed in further detail in the next sections.

4.10.1 Data Management Process

According to Respondent 3, the objective of having an efficient data management process is to have an information infrastructure that ensures the capture of crucial information accurately in time and to store it as well as make it available to the decision makers. However, lack of an effective data management process becomes problematic. In this regard, Respondent 25 has this to say: *“No process is in place to manage data in the existing system, and data required for PMS are still not automated”*. Moreover, the need for further improvement was recommended by Respondent 7, who views data as the key source for decision making. This concern was explained in detail by Respondent6, who said:

“Every employee has a computer and all the data are in the computer and we have servers and they've their own mechanisms of preserving the data, but how the data is processed? That process is still vague. The retrieval of data, the processing of the data, the accuracy of the results, what has been processed, all sort of review for the mechanisms, all these things still need improvement”.

So far, it is obvious from the above statement that the lack of a formal data management process is a challenge to overcome in an organisation. Moreover, the lack of structured process often results in generating poor reports. Respondent5 tried to explain this issue as follows:

“This huge amount of data is being crunched and still people are using non-enterprise systems to produce reports such as spreadsheets or information that is collected from peoples' heads possibly; there's no connection with other systems that are providing reports. So systems are not connected”.

Again, this statement confirms the lack of a clear process for data management. Respondent3 clarifies this point more when he pointed out that:

“Software, believe it or not, is the easiest part of the whole process, because there are readily available applications, but you need to have the logical structure, an effective choice of KPI's, and the information infrastructure to collect the critical data that fits to those formulas”.

Additionally, there are other gaps in managing data that need to be fixed to establish a robust and effective process for data management. One of the gaps is the lack of a central database. Respondent4 highlighted this matter and said: *“It is still fragmented; we have bits and pieces, pockets of data”*.

Interestingly, senior management commonly understood the value of having an effective data management process and that there are efforts being made towards building this process in the near future. For instance, Respondent4 said: *“I'm pleased to say that we have now taken a very serious step towards the right direction”*. Also, Respondent14 added that: *“We are improving towards achieving the data management process”*. Similarly, Respondent 3 added:

“If you structure your information, you know your data map. Many of the data that currently are entered manually might be captured by automating a process, a business process which makes it easier to capture the data in an accurate and a more effective way”.

Finally, the lack of integration between systems and data sources is another source of problems in data management that creates confusion and often becomes the reason for the inconsistency in results. Also, lack of integration between systems and data sources increases the load on people to search for the data in different places. For instance, Respondent 3 said: *“Every area manager in the business is managing their data, but there is no integration for the management of the corporate information, especially the critical data”*. This was confirmed by Respondent2 who said: *“We don't have a single source of truth”*.

4.10.2 Data Quality

Data quality is an essential prerequisite for the decision making process. Data must be accurate, complete, consistent, relevant, reliable, and be received on time. As a result of feedback received from participants, it has been found that there are lots of concerns regarding the quality of data among the employees of the surveyed organisations. For example, Respondent 25 said: *“Yes, we have a problem with data quality, everyone knows this; we try to improve, we have ISO internal auditing, and we improved”*.

Similarly, Respondent 1 believed that: *“There are known areas of weakness regarding data quality”*.

The poor data quality has a major impact on the outcome of the PMS reports and, consequently, on the decision making being made. Hence, Respondent 3 said: *“You might not trust the resulting scores of your performance indicator”*.

There are many reasons behind this poor quality of data. The first one is the weak data entry techniques. For instance, Respondent 18 said: *“one of the shortcomings is the problems in data entry”*. Respondent 12 added: *“Data entry needs some improvement”*. However, wrong data entry is a real challenge in the business and creates a lot of problems in using the data. Likewise, as there are many sources of data, and manual input becomes a dominant method of data input, there are lots of concerns regarding data accuracy (Respondent 16 and Respondent 17). Some other reasons for poor data quality relate to staff, while others relate to systems and tools. For instance, Respondent 12 explained part of it when he said that: *“We have some problem with some staff; some of them are not careful enough in inputting data accurately”*, while Respondent 2 blamed the shortage of resources and tools, hence: *“Our team manually does it all and our team consists of me and another individual. So we are under-resourced”*. Respondent 1 stated that much of the work is still done manually, and no automation has been done yet. In addition, Respondent 3 tried to explain the source of the problems that caused poor data quality. He said that: *“lack of accuracy and consistency, sometimes difference in definitions among different business users, gives you the impression that the data is not accurate”*. Similarly, support for the previous argument was received from Respondent 20, who believes that one of the main sources of the poor data quality is the lack of precise definition of the required data, and hence stated: *“One problem is the inaccuracy of data because a lot of data may be submitted but unfortunately may not reflect the reality of the situation”*.

To improve the situation, Respondent 2 suggested that: *“We definitely need data cleansing to be done in all of our major transactional systems”*, while Respondent 3 emphasised the need to feed the system with real, credible data. Respondent 26 added that the quality of the data is perhaps appropriate for the application, except that there is very limited quality control, which makes it susceptible to errors or changes.

4.10.3 Availability of Necessary Information

“If you ask me today is that data available as per my requirement? I'd say no”. This statement by Respondent 7 indicates dissatisfaction about the current situation, and hence suggests that the data are there, but the users cannot get what they want. Thus, this elaborates on the significance of having a tool to assist users in getting the accurate data on time.

Another problem preventing users from getting what they are looking for is the fragmentation of data in different places. This was highlighted by Respondent 25, who said: *“We have data in different places. Every unit collects data as per the requirement, but there is no central database, no interconnection among the units. This needs a lot of work to utilize the data in a better way”*. Similarly, Respondent 20 confirmed this fact when he said: *“I think there is a lot of information, and the information exists within the organization but is kept in pockets, and being able to connect all that information in a meaningful way is what is missing”*. As a consequence, according to Respondent 3, the way the organisation measures its performance is based on different sources of data and creates a risk of inconsistency. With no single point of truth, the level of accuracy, consistency, and sometimes the difference in definitions between different business users gives you the impression that the data is not accurate.

In addition, an interesting observation was raised by Respondent 11, who said:

“We have scattered information that helps in producing reports, but we do not have a system to analyse the data and translate it to actions for further improvement. This is an area that we need to improve, but what is required in here is we need to inject good analytical skills into the organization”.

This point is very vital, as the value of the data is in the outcome it provides; without good analysis, the data remain as useless raw data.

Respondent 20 also supported this by saying that:

“The other thing is that we don't have data analysts, so today there are no people that are looking at this information and actually building reports on it that can be made useful in the organization”.

4.10.4 Data Tools and Infrastructure

The tools that support automation and storage of data in a central database, such as software applications and IT infrastructure, are fundamental in the data management process. They are powerful tools to enable effective use of data. Hence, successful organisations invest considerably in data management tools.

A PMS requires accurate data received from validated systems to generate reports on time and to the expectations of the organisation. As discussed previously, manual entry of data is one of the main sources of errors and poor quality results, and it has been found that this is still dominant. Respondent 11 stated that:

“If you look at the KPIs, the data, the scorecards; about 60% of the data is manual, while the remaining 40% comes from the systems that we have”.

This argument was confirmed by Respondent 25, who said that: *“all data is collected manually, even though we have other automated systems, but integration to one central software didn’t happen yet”*. This interesting statement shows that there are infrastructure and automated systems, but there is no central software to manage the data and integrate all systems into one system or, at least, create a common ground and interface to share data and report the PMS from a central location. As such, one organisation tried to overcome this problem and built a simple system for PMS reporting. Respondent 26 stated that:

“TRANSCO’s PMS is a simple MS Excel System that combines all of the KPIs for the PMS into a single format. It is not linked to systems and requires manual updating by a small team representing the organisation. The system is based upon a simple design, and it is not intended to be automated”.

Although this is not the appropriate and professional solution that organisations need for better management of their performance, the previous statement indicates that there is a need for advanced IT tools to support effective management of data for successful PMS implementation.

Respondent 16 also emphasised the need for automated data entry and management. He said: *“of course if there is full automation it will help to improve the system, but right*

now this doesn't exist". Many other participants confirmed the need for IT tools to support effective management of data and the lack of existing software for this purpose. For instance, Respondent 1 said:

"I am not aware of any software to manage data. There is a lot of potential for IT; we just need to have IT capability to be able to feed the system and produce a suitable report format. At the moment it is done in manual bases although there is work in hand to automate that".

Other respondents stated that some of the data are still manual, and they still use Excel although they have the big systems, such as Oracle Financial System, in place. They also said that they have lots of raw data that are not properly stored and classified. Furthermore, they added that a lot of efforts are required to automate those and build strong databases (Respondent 7 and Respondent 8).

These efforts to develop a system for data management were mentioned by Respondent 2, who declared that they are working in parallel with the current system to have a corporate-wide electronic data management system to be put in place to manage the knowledge and data, which the organisation lacks currently.

In conclusion, it can be summarised that there is evidence of weakness in the data management process in the surveyed organisation. These weaknesses have a negative impact on PMS implementation, as the system depends heavily on data to report KPIs and organisation performance. As per the analysis, the gaps in data management were found in four major areas: the weak process, the poor quality of the data, the poor use of the data, and the lack of proper tools. It is recommended to investigate these areas and build strategies to fix these gaps to support building an effective data management system.

4.11 MOTIVATION AND LINKING PERFORMANCE TO INCENTIVES ANALYSIS

Motivation is the driving force behind people's actions (Silver, 2013). Motivated employees are more creative and productive than unmotivated employees; they enjoy the work more and experience less stress. Staff motivation is a key element in business success (Al-Mashari et al., 1999). By communicating the strategy in terms of clear objectives and tasks, every employee gains an understanding of how his or her actions support the "big picture". Similarly, the PMS will not be successfully implemented and utilised unless the staff is motivated to adopt it. Motivating employees requires linking employee incentives to performance in order to create commitment (Blasini et al., 2013). Staff motivation plays a key role in PMS success. Drake et al. (2007) cited that a prominent model put forth by Spreitzer (1995) suggests that two major components will positively affect employee feelings of empowerment: performance feedback and performance-based reward systems.

4.11.1 Current Situation of Motivation and Linking Performance to Incentives

In order to investigate this matter in further detail and to identify the drivers of motivation that support the successful implementation of the PMS, an interview with the respondents explored senior managers' knowledge and thoughts on the link between motivation and performance to incentives. It has been found that there is a good level of understanding of the value of "motivation and linking performance to incentives". Also, there is great support by managers to implement this factor.

Many managers believe that staff motivation has a significant impact on PMS success. For instance, Respondent 1 said: *"There is a need to give incentives to staff for increasing performance"*. Another piece of feedback was received from Respondent 4, who stated that *"if staff can see the benefit from that system, and they feel that they will be recognized truthfully in their performance, PMS will be successful"*. Respondent 11 also emphasised using reward and recognition systems to motivate people when he said that:

"If you want performance management to be effectively in place, if you want the organization to be a result-driven organization, if you want people to feel respected,

you got to make sure that you have the proper reward system in place, you got to make sure you have the recognition system in place”.

A very similar argument was received from Respondent 13, who said: *“without that (recognition & rewarding), performance will not be given any attention”*. In a similar manner, more support for this argument was received from other respondents who believe that linking performance to incentives is the key success factor for the PMS, and thus suggest that staff will accept PMS if they see any sign of benefit (Respondent 10 and Respondent 15). According to Respondent4 and Respondent6, staff will tend to have a strong commitment and motivation and support the PMS if they see that they are being appreciated and recognized when they make improvements in organisation performance. Also, people need to be appreciated at different levels, and they need to be encouraged to win their loyalty to the organization.

A similar argument was also received from Respondent7, who stated that *“it is not enough to develop the PMS and implement it without proper linking to incentives to performance improvement, and rewards and incentives linking to the PMS are necessary for success in addition”*. Equally, Respondent21 confirmed that *“without tying the compensation and recognition to the performance, PMS will not work”*. Additional support for this argument was received from Respondent 10, who believes that *“top management sponsorship and linking PMS to incentives are the most critical things in PMS success”*.

In spite of this, an interesting feedback was received from Respondent 26, who also believed that:

“It would be far more valuable to establish a reward and recognition system to further reinforce the performance outcomes. It is without doubt that establishing such a system will go on to have a greater impact in assuring business performance; it would be very useful to link personal and group incentives to the system”.

On the other hand, not everyone believes in the importance of having a reward and recognition system to improve staff motivation, and there are other drivers behind the motivation. For instance, Respondent 10 believes that *“Some people have personal interest, they are eager to implement the system without any additional incentives”*. Another argument in the same direction was received from Respondent 18, who said: *“I believe that PMS helps staff in their work, and they don’t need any further motivation”*.

However, it can be concluded from the above discussion that with some exceptions, there is a strong belief among managers in the value of motivation. Also, there is strong support to link a reward and recognition system to support of the PMS implementation. However, the next section will investigate the existence of this system in the different organisations under this study and will examine its effectiveness and implementation.

4.11.2 The Need for A Rewarding and Recognition System

There was no single feedback that mentioned the existence of a reward and recognition system in the selected cases. For instance, Respondent 1 said that *“there are no incentives in place at present; also, no one received a bonus if the organization performed well”*. This statement was confirmed by Respondent 5, who has this to say about incentives: *“this is (paying incentives) not happening in our organisation”*. Another interesting feedback was received from Respondent 6, who made the following observation when asked about incentives: *“I’ve been in this company for the past 13 years, and I’ve never seen this”*.

There is more feedback and evidence from other respondents who confirmed that there is no system of recognition and rewards that exists that support motivation and the PMS implementation (Respondent 10, Respondent 18, and Respondent 19).

Moreover, some respondents have stressed the importance of this link between performance and incentives, such as Respondent 8, who said that *“Linking results to incentives is the most important tool for PMS to be successful, but it is not happening”*. The same was repeated by Respondent 13, who stated that *“the organization needs to have linkage between performance and incentives in order to motivate the employee to give more to achieve the expected improvement”*. Furthermore, he added on another occasion: *“There is no linkage between performance and incentives, so that staff does not see any benefit from this practice”*. Also, Respondent 14 said that *“[there] should be a strong link between PMS and incentives, but unfortunately it is not implemented”*. Other respondents confirmed in different ways the lack of this link. For instance, Respondent 15 said it is *“very weak, not observed”*, while Respondent 12 said: *“Here there is a gap, we have to work on it”*.

An important comment was received from Respondent 9, who said:

“Theoretically we have all targets on paper, but we have weak staff ownership and interest, people should see benefits, linking to incentives and make staff see benefits”.

This statement is obvious, as it shows that the matter is not related to the system design or lack of target, but it is about weak ownership and interest as a result of poor motivation.

However, interesting feedback received from Respondent 16 explains more about the causes of this poor motivation. He said that:

“I think the organization couldn’t sell the system to people because it is not linked to their benefits. Currently we don’t link PMS results to the incentives. No one receives any bonus as a result of performance improvement. Linking is very important; otherwise the ownership will be weak”.

As per feedback received from many respondents, there are many benefits to having links between performance and incentives. For instance, Respondent 17 said that *“people now use PMS as it is mandatory, the reporting part I mean, but I don’t feel they are very interested”*. He added that *“the performance is not linked to any incentives, but it should be to make people own PMS”*.

Interestingly, another feedback was received from Respondent 20, who said that:

“There is no real bonus scheme in the government at this moment, but I think there is a realization that there is room for that, but it needs to be based on some sort of a structure. People who are working in government may be even more qualified than those in the private sector, but the problem is that there is no incentive, there is no drive; so, there is no one accountable to the bottom line”.

Yet, another issue relating to the lack of a rewarding system was explained by Respondent 15, who said that *“people will accept PMS if they see any signs of benefits, there is a big influence of reward and recognition system on people who are involved in successful implementation”*. He also added that: *“this situation causes a lot of resignations, frustration, and low performance in the organization”*.

Although some organisations pay an occasional bonus, it is not linked to performance, as Respondent 3 opined that: *“I don't think it's linked to that level. I mean people get rewards and they get performance reviews, but is it really linked to the PMS system, the result of the PMS system? I doubt it”*. Respondent 22 also confirmed that the system is written in policy, but it is usually not implemented. Therefore, people do not buy into the PMS. Many others were clear when they said that staff are not motivated and are not that interested in owning the system because they do not see any personal benefits or change (Respondent 24 and Respondent 25).

Respondent 26 explained more about this and confirmed previous statements, by saying that:

“There are no incentives for the success of the PMS and there are no direct links of the PMS to incentives. There appears to be intent to do this but the draconian policy that is handed down from the parent company may impede such an intention”.

Overall, it can be concluded that there is a very strong belief among senior managers that the successful implementation of the PMS requires more motivation for staff. This comes when they start to see some benefits. Therefore, the most effective way of implementing a reward and recognition system as well as linking incentives to it is to improve performance. However, it can be concluded from the feedback that the rewarding system is not implemented effectively to support the PMS implementation, which requires further review by policy makers.

4.12 CHANGE MANAGEMENT

Arab culture has certain unique characteristics that have a direct impact on business. Although some of these cultural aspects were discussed previously in the UAE culture section, this section highlights some features of Arab culture in relation to change management. Arabs are often found to resist change and reject initiatives that are not Arab originated (El Araby et al., 2006). Also, high power distance and high uncertainty avoidance can be found in their work environment (Hofstede et al., 2003). Hence, as these traits are possible obstacles to successful implementation of the PMS, there is a need to utilise change management techniques to overcome this problem. Change management has been an eminent field of management that helps organisations in their quest for improvement to overcome problems and to change from an undesirable state into a desirable one (Ragsdell, 2000). Moreover, change management is an approach to inform people to adopt new ideas in dealing with different aspects of their lives. Some of these traits introduced are: - *“new ways of doing things, new ways of seeing themselves, their roles and their interactions with others inside and outside the organization”* (Sinclair, 1994 p.32). As the change in the organisation affects everyone from top management to individuals in the lowest grade, it is the responsibility of top management to understand all impacts of the change on staff and try to solve all problems that may occur as a result of this change (Sinclair, 1994).

4.12.1 Current Situation: There Is a Need for Change Management

Senior management is usually aware of the importance of change management for implementing the PMS. There is a good level of awareness of its potential support for successful implementation of the PMS. For instance, Respondent 11 said:

“Implementing a performance management system is a cultural change. We have got to make sure that we have got an effective change management process in place”.

This clear and strong statement indicates the visibility of the role of change management among managers. More support for this argument was received from Respondent 17, who described the change management process as:

“I think this is a cornerstone in any project, especially if it is embedded in all organization units”.

Valid justification for the need of a change management process was received from Respondent4, who stated that they have about 30 nationalities or even more working in the organization, having different cultures, different backgrounds, different nationalities, and different languages. Hence, it is not that easy to manage them; rather, it is a challenge for executive managers to bring all those people together and make sure that they can accept the PMS and support the change.

4.12.2 No Resistance to Change

There is evidence that there is a good level of understanding among managers on the importance of implementing the PMS. Hence, no strong resistance is expected in PMS implementation, and the role of change management will not be challenged. Examples of feedback supporting this argument were received from Respondent 25, who said:

“I think PMS will improve the system, I say this from my experience in customer service; when we start to do surveys and measure our customers’ satisfaction, we start to learn and improve. Thus, measuring any process definitely makes improvement”.

Additional support was received from Respondent6, who stated that people do not have a fear of having a new system because they are accustomed to these changes, and they feel that any coming change is not going to make any difference to the people. Similarly, Respondent9 confirmed that people will be used to it with time like any other system.

However, it seems that people’s main concern is their job security, but in the given case, job security is high, especially in the government sector. Also, previous experiences did not have any negative impact on staff personal benefits. Therefore, there should not be any fear of change.

Moreover, another comment received from Respondent 12 stated that *“engineers are happy to use the system; even some technicians started to like the new system”*. So, this indicates that the system is user-friendly, which makes staff at all levels able to use it as well as makes resistance to change very low. Nevertheless, another positive feedback received from Respondent 18 stated that:

“I don’t think employees will resist having PMS. As I mentioned before, it helps them to work better”. In a similar manner, a lot of the respondents believe that the PMS is a

great system, it is user-friendly, and there is no issue preventing the staff from using and implementing it (Respondent 21, Respondent 23, and Respondent 24).

Furthermore, an interesting explanation about the PMS introduction into the business, showing the acceptance of PMS to be implemented as an evolutionary system, was presented by Respondent 26, who said:

“The PMS in TRANSCO is viewed as an evolution of the introduction of business performance to a government owned company. It is likely that more intelligent systems may be applied in the future, but for now it is important to reinforce the need for a PMS as well as the simple application thereof. Once the existing system is mastered, then one can move on to more sophisticated IT applications. I view it far more important to get the fundamentals enshrined in the business as opposed to moving toward highly automated systems that could divert focus away from the basics”.

Similarly, Respondent 1 believed that *“the PMS is a good system although it requires minor amendments, but the principle behind it is fine”*. He nevertheless added that *“having a new system is a good idea provided that it is focused. It needs more time and efforts in terms of developing KPIs and definitely is worth it”*. It can be said from the tone of comments that there is an acceptance of the system while the resistance to adopt it is low. Also, those statements show good understanding of the PMS requirements, which is another good indication of involvement in system development and implementation. As a result, this understanding reduces the resistance to change. Therefore, other factors may contribute to the low resistance to change. On this note, Respondent5 believes that there will always be resistance to any change. However, he thinks that over the years, whenever changes occur, people resist them for a while and then accept them, thus becoming business as usual.

4.12.3 Resistance to Change and People Not Ready for the PMS

One of the obstacles reported by managers that may cause a negative impact on PMS implementation is lack of readiness and the culture for accepting changes. For instance, Respondent 8 said: *“Culture is not ready for change”*. Similarly, Respondent 20 added that:

“To bring in a new idea such as the PMS and try to integrate it into the existing infrastructure is like saying you want to change the old legacy, and people just in their own nature don't necessarily react well to change”.

The same respondent added on another occasion that:

“Changing the way things are being done is a change management challenge that needs to be addressed and requires strong leadership. Not only that, but it is definitely a strategy in itself to introduce a PMS in the organisation. It is not an easy task to come in and say well, let's develop a PMS and everybody today needs to fill out these forms. This is where the PMS will fail because there is no buy-in and there is no cultural change”.

Respondent 20, has this to say:

“Change management in my opinion is an art. Anything that brought in as a new intervention to an organization is considered as something that people don't react to positively, especially something like PMS, which is a huge change management challenge”.

However, it seems from the above statements that there is a real need to work hard on changing the culture and changing people's understanding. In this way, staff perception about the realization of introducing the PMS becomes successful. In addition, it can be concluded that introducing the PMS is a big task that requires effective change management intervention because it affects people's lives and the way they perform their work. Thus, the next section explores the existing situation and the maturity of the change management concept in the organisation.

Although the previous analysis showed that there is generally a good level of acceptance for implementing the PMS, there are a few views on the difficulties that require more effort to integrate the PMS into the business. For instance, Respondent 3 stated that *“it is still a challenge, and it still requires some work”*. He added that *“there is some kind of fear and some staff still says: ‘I don't want you to set targets for me and monitor me and how I am doing’”*.

Other feedback received from Respondent 4 confirmed the existence of resistance; hence, he said:

“No doubt we face resistance for the change, which we are trying to ease and relieve by explaining and educating the staff; that this change will bring positive consequences and will deliver dividends for the people”.

One of the reasons for resistance is that some employees are comfortable with the existing system and they do not want to support something they do not know about; they have fear of new technology (Respondent 14). Another reason was explained by Respondent 13, who said: *“staff will resist the changes as this will show their real skills and competencies”*. This respondent means that the PMS will expand to monitor individual performance; hence, they will be exposed to a system that shows their weaknesses, and that is why they do not like it. Likewise, Respondent 8 stated that there is no proper commitment from all, and thus suggested staff should be engaged in the PMS development to resolve it.

Respondent 6 also presented the explanation of more detailed issues about the change in management when he stated that:

“Changes are coming from various corners of the organization, people are subjected to these changes but they don't feel the tangibility of those changes. They still do the same work while there are so many changes happening. So, that means the people are not properly linked and aligned with organizational changes”.

It can be summarised from the above statements that visibility is crucial for staff to know the objectives of the change. Also, proper linkage of the PMS to staff daily work is necessary to ensure the full involvement of staff to support PMS success; otherwise, there will be a big risk that change remains isolated and does not support PMS implementation.

4.12.4 Change Management Tools

During the analysis, many views and ideas were presented by senior managers about the best ways to manage the change. These suggestions reflect their specific experience of the environment to enhance the opportunities of introducing a successful PMS and are about change management techniques and tools suitable for this culture. For example, important feedback was received from Respondent 20, who said:

“The change management concept requires change management agents and it is just any leader or manager or even employee who can just adopt change management as needed”.

Although this respondent emphasised the importance of having a strong agent who can sell the concept to the organisation, he added that there are other tools required, thus:

“Change management requires many tools including communication, strategic planning, looking at education, coaching, sensitivities, surveys, data collection”.

Supporting an argument for the criticality of competencies of staff to support the change was received from Respondent 6, who said:

“Whenever a change comes into a process, then it depends on the competency of the people, it needs to be upgraded accordingly”.

Another crucial tool was suggested by Respondent 16, who said: *“I think the organization couldn’t sell the system to people because it is not linked to their benefits”.*

The same argument was received from Respondent 1, who said that *“there is a need for sort of incentives to give staff a reason for increasing performance as required”.*

It is obvious that the above statements link the acceptance of implementing the PMS and the need for strong motivation through incentives and benefits.

Respondents provided suggestions for effective implementation of the process of change during the interview. For instance, Respondent 4 proposed a combination of explaining and educating the staff that this change will bring positive consequences and benefits. According to Respondent 2, the change management process starts with changing people's mind-sets about their way of work, how they measure themselves,

and perception of their businesses. He added that they definitely need a little bit more time in terms of trying to get people to buy into this whole performance-driven culture; hence, it is not a fast process. Respondent 5 elaborates the process of change when he stated that *“as we are going for step by step evolution, we're trying to change the culture within this organization”*. On the contrary, Respondent 22 blamed the lack of an existing process leading to the change, thus he stated that:

“There is a lack of a change management process; we don't have any system for this critical matter”.

Notwithstanding, he suggests a building process within the organisation to make a systematic approach for change. In the same vein, Respondent 10 explained that the process needed to be implemented to support successful change when he stated that:

“It is all elements together, if you build the system correctly, linked to strategy, developed the right communication strategy and implement it, motivate people, then you can manage the change”.

Moreover, other views about basic requirements that are needed to support the change have been highlighted by other respondents. For instance, Respondent 16 emphasized the importance of staff involvement in building the system so that they own the system. The same was repeated by Respondent8, who referred to it as the lack of proper commitment from all, and thus complained about the poor engagement of staff in the system. Furthermore, Respondent 19 said that the staff is ready to accept continuous improvement, but there is a need to understand what is going on.

Similarly, Respondent 20 highlighted the need for awareness, education, and people's understanding of the system. He thus added:

“The question isn't just about the resistance; the question is how you deal with the resistance? Through education, through seminars, through workshops, showing people, demonstrating people, using live case examples on what success looks like. People will always be bought in [and] will be less resistant when they see something that has actually worked”.

In conclusion, it can be summarised that there is evidence that the majority of the senior managers believe that there is no strong resistance for change. Although a few managers reported that there is a sort of resistance, there were positive reports of different ways to remove the resistance and ensure successful implementation of the PMS in the

organisation. On this note, many of the respondents emphasised the need for awareness, education, training, motivation, and incentives for general staff involved in the PMS. Therefore, it seems that solving those issues will have great impact on the change management process.

4.13 ROLE OF EFFECTIVE COMMUNICATION

Communication is one of the most critical success factors for PMS implementation (Chrusciel et al., 2003). According to (Neely et al., 2005), the factor “communication” is one of the most cited in PMS literature. Most authors stress the importance of effective communication in the success of a PMS. In addition, Neely et al. (2005: 1228-1263) cited that “*the effectiveness of performance management heavily depends on the communication strategy to facilitate the buy-in from the people in the organisation*”. Effective communication strategies are required for successful implementation of the PMS. They also ensure better awareness and understanding, which will likely result in buy-in from staff, reduce the resistance to change, reduce the fear of a new system, and create a strong culture favourable for PMS implementation. Not only that, but effective communication will also build positive momentum for the PMS within the organisation (Malina and Selto, 2001).

Multiple communication vehicles are available to enhance the implementation of the PMS such as workshops, presentations, training sessions, intranet, brochures, newsletters, emails, posters, handbooks, letters from the chairman, videos, and Q & A. The main purposes of the communications are to build understanding, commitment, and enthusiasm among staff through proper education and to explain the benefits of using the system.

Moreover, facilitation of communication between a business unit and other business units leads to a mutual understanding of the organisation’s strategic direction and goals. Past empirical studies also suggest that greater communication leads to a convergence in understanding between the various business units. Communication ensures that business units are integrated effectively within the organisation. It also promotes greater alignment between these business units, leading to a more successful development and execution of an organisational strategy (Luftman, 2003).

By far, the majority of managers surveyed indicated that they believe there is a strong link between effective communication and successful PMS implementation. For instance, Respondent 22 said: “*Four pillars for success [are] communication,*

commitment, sustainability, and continuous improvement”. Related feedback was received from Respondent 20, who said:

“Communication is the fundamental part of this process, if we talk about people's resistance or acceptance to change management, the first issue that leads to resistance is people's unawareness about the organization's plan. So transparency and good corporate communication are very important for a successful project of this kind”.

This statement clearly indicates the strong relation between resistance to change and communication. No wonder one of the respondents said that if communication is not effective, then people will not understand the plans, and this leads to resistance of any new idea like the PMS.

Time and again, the need for a communication strategy was stated by Respondent 25, who said: *“We need innovative communication strategy”*. Nevertheless, other respondents supported this argument and emphasised that a lot of effort is needed to find better ways to communicate the PMS results to all staff (Respondent 16 and Respondent 23).

Further analysis was conducted to understand more about the current situation and to assess the effectiveness of communication processes within the organisation in relation to PMS implementation. Therefore, more details about findings are presented in the following sections.

4.13.1 Proponent of Existence of Effective Communication

Although the previous section highlighted that managers believe in the role of communication, only a few managers reported the existence of a good communication process within the organization. For instance, Respondent 2 said if there are key messages or major news or events pertaining to performance management, his department communicates it to the organization. Another statement was received from Respondent4, who said:

“This is one area I'm personally very pleased with, the initiative taken by the executive team and the communication team. This year I think they made it very clear, it did put TRANSCO in a different place altogether when it comes to the communication exercises

in terms of frequency of communication initiatives, in terms of style of those communication initiatives, and in terms of the impact”.

Yet, other feedback was received from Respondent 12, who said that there is close communication with others, and the process has been good.

It can be said that those statements confirm the existence of the communication process, but do not necessarily provide strong evidence of effectiveness of the communication. Some more interesting feedback about this topic was received from Respondent 26, who said that *“the PMS is mostly communicated to the upper management of the organization where it is most effective”*. Thus, it is obvious that this observation elaborates on the fact that the focus of communication lies at the top level. It does not indicate the presence of effective communication at the lower levels of the organisation. Therefore, further investigation is required to assess the effectiveness of the communication process.

4.13.2 Proponent of Poor Communication

There is much evidence of poor communication within the organisation. For instance, Respondent 6 stated that: *“Due to lack of communication, so many things happen at a high level but don't get cascaded down to the lower level”*. Furthermore, Respondent 15 supported this argument and reported that *“maybe the campaign of implementation and encouraging people to buy the system was insufficient”*. Similarly, Respondent 16 also agreed when he said that:

“If you ask about communication, we have problems in it, information doesn't reach all levels of people, and not all read them. We need to find better ways to communicate PMS results to all staff”.

A similar argument was received from Respondent 17, who said that *“only top management see reports internally, but internal communication needs improvement, lower staff is not involved at all”*. In addition, many other respondents' feedback stated that the role of communication on the PMS is not effective, and they mentioned that efforts to create effective communication are limited. Hence, only routine reports were produced as part of business requirements, but those reports do not get to the staff and,

as well, do not have enough information. This weakness in communication creates a problem for the staff, and they feel that they are isolated and don't know much about business plans and what the organisation is trying to do to improve performance (Respondent18, Respondent 19, Respondent 21, Respondent 22, Respondent 24, and Respondent 25).

Interesting feedback was received from Respondent1, which confirms the weakness in the process:

“Yes, we receive quarterly reports. I get emails for this, also attend core team meetings, and also we have the quarterly update meeting to exchange information and results with other members, but the visibility of the system is limited to those users involved in producing the consolidated reports and senior managers seeing the reports, so the wide staff doesn't see the company performance”.

More feedback supporting this argument was received from Respondent 5, who said:

“We do a quarterly update on our high-level performance indicators. That, in my opinion, needs to be better communicated to the entire organization”. Many other respondents believe that the level of communication is not extensive. It has not covered everything. It needs much more improvement (Respondent 7, Respondent 9, Respondent 13, and Respondent 14).

Consequently, the previous report has identified the root causes of the communication problem. These statements support the argument that this communication is not effective; it is limited to senior managers, and the rest of the organisational staff is not aware of the performance. More explanation and examples about the communication process gaps were received from Respondent 11, who said:

“We're a bit challenged in communication, as I mentioned before our communication seems to be a bit technical and we don't do enough internal communication. Our communication is more events driven”.

In this statement, the respondent identified three weaknesses in the communication process. The first is the wrong design, as it should not be technical. The second is the frequency, which is less than required, so more communication is required. The third is that tasks are not properly planned, and they only follow events.

One of the respondents provided an interesting clarification about the existing situation and his views of the right design; Respondent 6 stated that:

“We need to have both horizontal as well as vertical communication. If you look into the organization, we really do not have a clear strategy of communication. Who has to communicate with whom, and how to communicate, it is not very clear. So this is one of the bottlenecks within the organization”.

The above comment has identified a very important issue in communication, which is the need for effective and clear communication strategies. Without proper strategies, communication will not achieve its objectives and targets. As a result, there is a real need for effective communication strategies to be in place to create effective communication within the organisation and to support the successful implementation of the PMS.

4.13.3 Proponent of Efforts for Improvement

As this process is very critical for the successful implementation of the PMS, there is evidence that there are weaknesses and gaps that, as Respondent 8 stated, *“can be enhanced”*. Many managers have provided suggestions and ideas for improving communication processes. For instance, Respondent 7 said:

“Having a clear strategy without communicating it to the people, to your staff, will not have an impact, even if it is the best strategy in the world. So we have hired an external company to help us with communicating the strategy”.

This statement confirms that the importance of proper communication processes is well understood within the organisation. On this note, Respondent 7 admits the lack of availability of internal resources that are capable of dealing with proper communication. Therefore, he suggests building effective communication process using external experts to help in this task. This development of communication strategies was confirmed by Respondent10, who said that they developed the right communication strategy and have implemented it. Moreover, the need for developing communication strategies as the right approach was discussed by Respondent 11, who said that: *“What we need to do is really to make sure that we have a communication strategy”*.

More efforts have been made to improve communication within the organisation. For instance, Respondent 10 said:

“We have an ASTRO community group of employees trained to spread this culture among others, boot camp training sessions, portal, emails, town hall events, stakeholder surveys, newsletters, [and] monthly, quarterly, and annual reports. What we did is not enough, but there is some progress”.

Other respondents highlighted that having good processes and clear responsibilities will improve the communication process. Communication improvements at the lower level are in need of more work, and so they are now being improved (Respondent 12 and Respondent 15).

SUMMARY FOR PROCESSES CSFs

Effective communication is of a vital importance for PMS successful implementation. However, the feedback in this study confirmed that, although there is a communication process in place, it is not effective for many reasons, such as a lack of clear strategy, poor implementation and a shortage of resources and skills. This area therefore needs to be investigated further to develop better communication to support the successful implementation of the PMS. More analysis is presented in the next chapter.

Respondents highlighted several areas of weakness and gaps in data management, namely the lack of a data management process, poor data quality, inefficiency in the use of existing data and the lack of appropriate tools to support data management. These themes are further analysed in the next chapter.

Many managers in this study believe that staff motivation has a significant impact on PMS success. Also, there is strong support for linking a reward and recognition system to support of the PMS implementation. However, respondents reported that the reward system is not implemented effectively to support PMS implementation, and this requires further review by policy makers. The next chapter provided further analysis on the existence of this system in the different organisations here studied.

Senior management is usually aware of the importance of change management for implementing the PMS. Introducing the PMS is a big task that requires effective change management intervention because it affects people's lives and the way they perform their work. The feedback in this study showed that there is generally a good level of acceptance for implementing the PMS. More analysis is presented in the next chapter about the different techniques required to ensure the least resistance to change, such as the need for awareness, education, training, motivation and incentives for staff involved in the PMS.

This chapter focused on the classification and coding of themes and sub-themes under individual CSFs. The next chapter presents the data analysis and findings of the field study, using a similar structure and grouping of CSFs to those used in this chapter. It explains and discusses the themes and sub-themes that emerged from the analysis in more detail, relating them back to the literature.

CHAPTER 5

DATA ANALYSIS AND FINDINGS

This chapter presents the data analysis and findings of the field study. Data classification was summarised in the previous chapter, which outlined the empirical findings of this study without going into detailed analysis. This chapter provides such detailed data analysis, presenting an overview of the results simply. It outlines the findings with regard to each of the CSFs and chapter explains and discusses the themes and sub-themes that emerged from the analysis in more detail, relating them back to the existing literature.

This chapter is similar in structure to the previous chapter, but it presents the analysis and findings instead of classification and coding. The CSFs that are analysed in this chapter fall into in four groups, as follows.

A- PMS DESIGN AND IMPLEMENTATION CSFs

- 1 Linking PMS to organisational strategy
- 2 System design and integration
- 3 Continuous monitoring and reporting

B- PEOPLE CSFs

- 4 Clear targets and business benefits
- 5 Top management commitment and support
- 6 Staff involvement in the system
- 7 Skilled resources running the system
- 8 Staff training and awareness

C- TECHNOLOGY CSF

- 9 IT infrastructure and support

D- PROCESSES CSFs

- 10 Effective data management system
- 11 Motivation and linking performance to incentives
- 12 Change management
- 13 Role of effective communication

The first section will present the data analysis and findings of the CSFs related to PMS design and implementation, as follows:

A- PMS DESIGN AND IMPLEMENTATION CSFs

- 1 The link between PMS and organisational strategy
- 2 System design and integration
- 3 Continuous monitoring and reporting

5.1 THE LINK BETWEEN PMS AND ORGANISATIONIONAL STRATEGY

5.1.1 The Importance of Alignment between a PMS and Strategy

According to Norton and Kaplan, (2002); linking Performance Management System (PMS) to organisation's strategy is the most important factor in achieving a successful implementation of PMS. Hence, performance management cannot be done in isolation, nevertheless performance KPIs must be developed from strategy, for all business units. Moreover, Kaplan and Norton, (2001) stated that employees should stick with strategy and use the PMS as a strategic tool to ensure that all of the objectives and measures inherent to it are derived from an organization's vision and its resultant strategy. Successful organisations achieve success through the strong alignment of their strategy to their business (Ariyachandra, et al, 2008).

It has been found in this study that there is a consensus among managers about the role that a PMS should play in supporting strategy execution, developing the right KPIs for all strategy objectives and initiatives, and using the PMS to monitor and measure the outcome. Furthermore, research in performance measurement has shown that PMSs can be useful in implementing strategy and providing alignment (Gimbert et al., (2010). This argument supports the previous one and gives more evidence of the role that PMSs can play in different parts of the organisation to support business success in all aspects. However, it is crucial that UAE organisations utilise PMSs effectively to support strategy execution. Likewise, according to Kaplan and Norton (1992), successful organisations achieve success through the strong alignment of their strategy to their business. Several scholars have proposed the introduction of a PMS as a means to

implement strategy, promote organisational learning, align behaviours, and support decision-making processes (Bourne et al., 2000; Kaplan and Norton, 2008; Neely, 1999).

5.1.2 Strength of the Link between PMS and Organisation Strategy

However, there were different opinions about the link between PMSs and strategy. Some respondents described it as a weak or immature link while others believed that there is a missing link or one that is still under development. According to most of the respondents, the concept of the strong link between PMSs and organisational strategy is apparently unclear to everyone. Hence, they believe that the organisation needs to make efforts to ensure that this concept becomes very clear to all stakeholders and that it is implemented very well.

This study found that 39% of managers interviewed believe that a PMS is strongly aligned to organisational strategy. In contrast, 44% of managers interviewed believe that the alignment between a PMS and organisational strategy is weak. 17% of respondents have an even more negative impression and think alignment is missing altogether. Interestingly, this group is from midlevel or non-managerial staff.

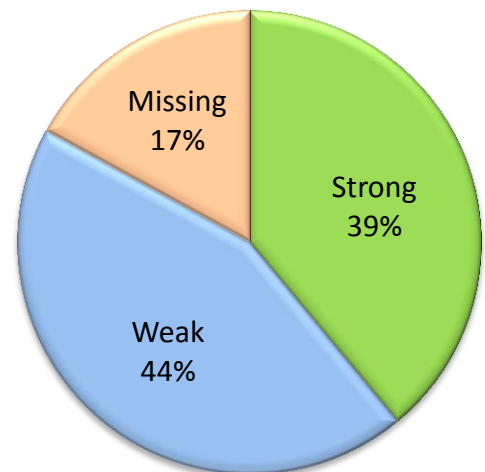


Chart 5.1: PMS alignment with strategy

So, it is obvious in chart 5.1 that the link between a PMS and strategy in the current situation is not well established. Therefore, the strong alignment between strategy and PMSs is an essential element that supports successful implementation of a PMS, but there is evidence that the current situation is weak and more efforts are required to establish the right link between both PMSs and strategy.

5.1.3 The Introduction of PMS as a Vital Tool in the Management of an Organisation as a Mean to Implement Strategy

There is strong evidence that managers see PMSs as a vital tool for strategising successful implementation. For instance, Respondent5 said, “*PMSs will allow us to have dashboards to look at indicators that are linked directly to the strategy*”. This argument is supported by Kaplan and Norton’s (1996b) statement that a performance measurement system is vital in the management of an organisation. It does not only tell us whether an organisation is successful, but, if used properly, it can also help an organisation implement their strategies. Nevertheless, the value of a PMS as an effective tool supporting success in organisation is a proven approach, and therefore it would be beneficial for UAE organisations to adopt such a tool to improve the current situation and achieve more success.

Richardson, (2004) stated that it is essential to develop your Balanced Scorecard according to the vision of your organisation. However, it has been found in this study that there is a clear understanding and acceptance among managers of the importance of integration of a PMS in the organisation strategy. Therefore, there is no issue here, and the situation of understanding the importance of developing the BSC according to the vision of the organisation is well established.

Kaplan and Norton, (2001) stated that employees should stick with strategy and use the PMS as a strategic tool to ensure that all of the objectives and measures inherent to it are derived from an organisation’s vision and its resulting strategy. No feedback was found on the importance of the staff’s role in the linking between PMSs and strategy. It has been observed that the role of staff in building the system and implementing it was not given the right level of importance, and therefore more attention to this point needs to be considered. Further analysis about the staff role in developing and implementing a PMS is discussed in another section.

5.1.4 Importance of Link between Business Processes and CSFs/KPIs

One of the arguments found in the literature indicated that managers have insight into the relationships between business processes and CSFs/KPIs (de Waal, 2002). No feedback was found about linking processes to CSF in this research. Maybe the reason behind the limited focus on processes is the lack of processes mapping and reengineering within UAE organisations, and therefore further reviewing of this matter could be useful.

Most of respondents believe that there are weak or missing links and poor integration between PMSs and strategy. This argument is supported by Chrusciel, Donald, and Dennis W. (2003), who stated that one of the causes of the failure is using ad hoc measures not integrated with organisation strategy and not used to manage business. However, although it has been reported by managers that they have good understanding of the concept, it seems that the problem is in the implementation part, especially when it comes to the linking and alignment of measures and indicators. To solve this matter, a more systematic approach needs to be adopted.

5.2 PMS DESIGN AND INTEGRATION

5.2.1 Current Situation of PMS Design

Successful Performance Management System (PMS) implementation largely depends on the appropriate design of it. Therefore, a lack of focus and the use of too many measures in the design increase the probabilities of PMS failure (Kennerley, and Neely, 2002). It has been found that 27 percent of respondents in this study believe that the existing system design is simple and easy to deal with, while 50 percent of respondents to this study believe that the existing PMS design is complex and difficult to use. But the majority of respondents which represents 65 percent think that the design requires more efforts to be better, see chart 5.2 shows number of respondents for each view.

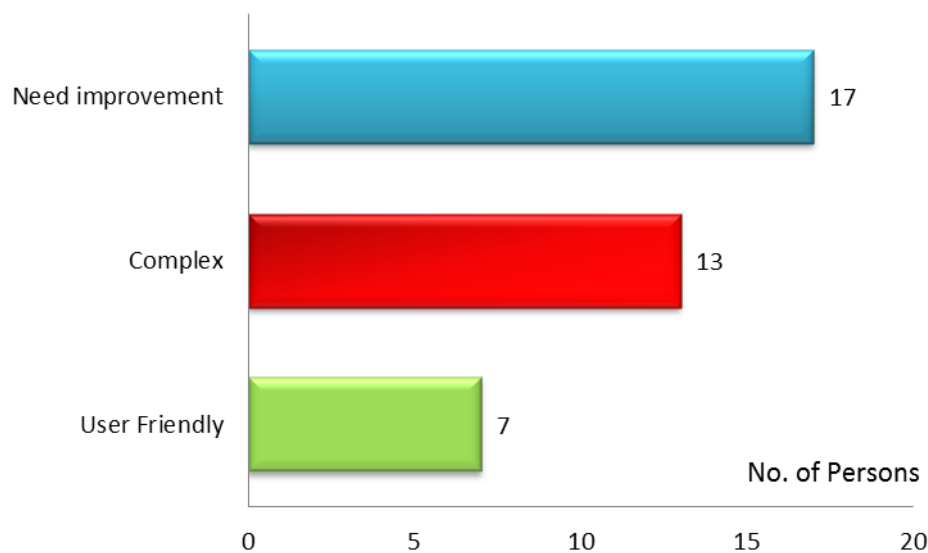


Chart 5.2: System design and ease of use

The reason for the differences in views could be attributed to the nature of user dealing with the system. For instance, half of those who said “*the system is easy*” are working in departments that are responsible for system performance and development. Hence, they are familiar with it more than others. Evidence supporting those with views backing the PMS design’s difficulty are outlined in the analysis of the data, and many root causes of failures of the PMS design have been identified and linked to literature, as follows:-

5.2.2 Problem Sources

5.2.2.1 Poor Design and Problem in Cascading PMS to All Levels

The PMS design problems can be attributed to many factors. For instance, Kaplan and Norton (1992) stated that one of the reasons for the failure of PMS implementation is having a Balanced Score Card (BSC) at the top, not cascaded down. A problem in cascading was stated by many respondents in this study. Therefore it is apparent from the feedback that there is an issue in the cascading of the system to all levels in the organisation. Generally only managers and key staff are involved in the system design and implementation, while communication and training are also limited to the top layer of the organisation. Although, this concern has been discussed in the literature as one of the common problems in PMS implementation, and so, failure occurs when a performance management system at the top do not cascade down (Kaplan and Norton, 2000). Reports and indicators are also only seen and reviewed by the senior level. Engagement with staff is very limited; they are not involved in developing or implementing PMSs. Thus, this weakness in cascading PMSs to all levels has a negative impact on the people's engagement in system implementation.

One of the most important tools in any project is the effective design process. According to Bourne et al. (2002), many of the factors causing problems for implementation of PMS could be attributed to the poor design process. Interestingly, none of the respondents mentioned the importance of the PMS design process and its value in building a solid system. The PMS design process starts with the strategy of establishing the goals and key performance indicators for the organisation. Then those KPIs are built into business plans and cascaded to all levels of the organisation, linking the performance to incentives and a motivation program. After that, proper communication and awareness is implemented to engage all staff. Finally, continuous monitoring and reporting are implemented effectively. However, as this process was not highlighted in the feedback of respondents, it could be not considered as a critical issue due to the outsourcing of the design to an external consultant, so managers don't see any problem in the process design.

5.2.2.2 Sophisticated and not user friendly design

The data gathered in this study suggests that the PMS design is complicated and not user friendly. The literature shows a consensus with this argument, as Richardson (2004) stated that the failure occurs if a PMS is sophisticated, lacks the flexibility to adopt and if an organisation is not ready for it. However, given these facts, it is obvious that simplification of the PMS design and making it more user friendly is an essential condition in ensuring successful implementation. Using IT to create a user friendly platform is the key to achieving this goal, and so more investment in IT will have a positive impact on the system success. Part of the proper development is to create a simple system. It is crucial that for any system to be successful, it must be user friendly (Pawar and Driva, 1999). The complex design of a system creates barrier and discourage people from using it. As a consequence, overall utilization of the system would be much less than optimal and its impacts on the overall value of the system.

5.2.2.3 KPIs Design and Selection

There is a lot of evidence in this study to suggest that there is a problem in KPIs' design. The literature has stated that the lack of focus on critical KPIs and too many measures can cause failure (Kennerley and Neely, 2002). Therefore, the right selection of KPIs and the focus on important functions in the business are essential for successful PMS implementation. Furthermore, a previous study stated that a large number of measures diluted the overall impact (Bierbusse and Siesfeld, 1997), and so there is a need to limit the number of indicators to important functions. There is evidence of confusion and discomfort among managers about the use of the system as a result of using many KPIs without proper visibility of the important performance indicators. This results in losing the PMSs' power in supporting the decision making process. Therefore, it is fundamental that the number of KPIs for the organisation shouldn't exceed 6-9, and the same number should run through every division/department.

Researchers in a previous study specified that one of the reasons that caused PMS to fail was when metrics were too poorly defined (Schneiderman, 1999). This means that the KPIs are not very clear to users, that there is no simple definition for every KPI and that there is no consistent interpretation of KPIs. Previous research has also found that it is

vital that managers agree on changes in the system to develop the right KPIs to serve the purpose (de Waal, 2002).

The difference in understanding of KPI meaning imposes a high risk. It causes the reporting to be inaccurate and the quality of results to be questionable. So, it is apparent from respondents' feedback that the existing metrics design and definitions are not satisfactory or clear and that they don't meet the managers' expectations. Therefore good metrics have to include a small number of KPIs with simple definitions, as well as simple methods for calculation and presentations. Also, good metrics have to have clear targets and objectives, and also a clear link between objectives and KPIs.

5.2.2.4 Integration between business processes and PMS

Literature has stated that it is necessary that managers have insight into the relationships between business processes and CSFs/KPIs (de Waal, 2002). This argument highlighted a very critical issue that affects the success of a PMS, where the link between the PMS and the different processes in the organisation supports the successful implementation of the PMS through the proper integration to all functions in the business. However, no feedback was received from any manager about the link between PMSs and other business processes. This could be attributed to the lack of understanding of the importance of this key element in the system design.

The literature review indicated the importance of designing the PMS in a way that harmonised and integrated with other systems in the organisation. Morisawa, Toru, and Hiroshi Kurosaki (2003) emphasize the importance of PMS compatibility with other systems in order to be successful. This argument is in line with the previous discussion about the integration of PMS with business processes, and the fact that in both cases there was no feedback received confirms this integration. The lack of highlighting this more likely means it is not considered. The good PMS design would integrate the PMS with all other systems in the business. Lack of proper integration will make the system isolated, and this isolation will cause the system to be abandoned by users and fail.

5.2.3 Efforts to Enhance the Design

On the basis of the evidence currently available, it seems fair to suggest that there is poor level of satisfaction among managers about the implementation method of PMS. Further evidence has been found supporting the existence of problems disturbing the effective implementation of a PMS, like, for instance, shortage of skilled resources, ineffective training and awareness process and weak engagement by top management. However, a previous study concluded that implementing a PMS should involve the use of an evolutionary development methodology in several stages, starting with financial performance before then moving to operational performance and other areas (Ariyachandra and Frolick, 2008). Current research appears to validate this view, and therefore it is worth further reviewing the existing implementation methods to establish a clear strategy for successful implementation of a PMS.

The available evidence seems to indicate that the system design and implementation is not done for all levels in the organisation. A PMS is used partially on some levels and for limited purposes. A previous study stressed the need to implement the Balanced Scorecard everywhere in the organisation (Richardson (2004)). One of the reasons for this limited implementation is the lack of the link to individual targets and KPIs. If this link is implemented then the implementation will be comprehensive and all staff will have a part in the PMS. Currently, PMSs focuses on organisation level KPIs and the reporting of high level indicators. Therefore, small units and individuals don't have any part in the system. Thus, they don't use it.

5.3 CONTINUOUS MONITORING AND REPORTING

Continuous monitoring and reporting of business performance provides the value for which a performance management system (PMS) is built, and help improve profitability, productivity, return on investment and customer satisfaction (Martinez, 2005). Moreover, performance monitoring and reporting are crucial for maintaining a culture of transparency and high performance in the organisation; they provide a focus on the required outcomes to support effective decision making processes (de Waal, 2002).

5.3.1 Monitoring and Reporting in Departments

Monitoring and reporting consists of several tasks, such as data entry, which are assigned to different departments in the organisation. Each department has its own key performance indicators (KPIs) and is responsible for regularly reporting on these KPIs to the business performance department. This activity is usually automated and departments may need to update their systems accordingly. The business performance department also reports regularly to senior management; and a team is responsible for reviewing those reports before consolidating them into the senior management report. The final review and monitoring are conducted by senior management, who look at the organisational reports and make comments and recommendations. The outcome of the regular review is recorded by the business performance department, which follows up departments or activities that are giving cause for concern and recommends appropriate action.

5.3.2 Current Situation

The feedback received in this survey shows that 58 percent of respondents believe that the current reporting and continuous monitoring are effective and meet their expectations. Of these, the majority are senior managers. However, 27 percent of respondents are not satisfied with the current situation and believe that the process needs further improvement. The majority of respondents in this group are middle managers.

Respondents mentioned some disconnect in the process, in that KPIs do not measure real performance, for instance, because of poor design and unclear definitions of KPIs. They claimed that the monitoring and follow-up are not up to their expectations. They suggested that KPIs should be cascaded to all levels; likewise, monitoring should be designed to be linked to the real business.

However, 15 percent of respondents said that the process is not effective at all and does not support PMS. Interestingly, this group consists of middle managers, apart from one who is a senior manager, and all of them work in the performance department. The causes of these findings are further discussed in the following sections.

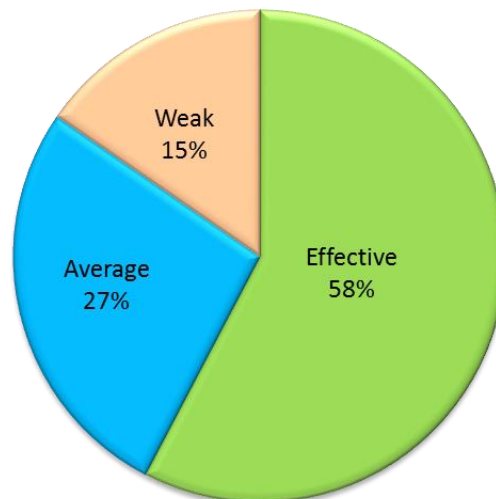


Chart 5.3: Continuous monitoring and reporting

5.3.3 Monitoring and Reporting Process

A process of performance monitoring and reporting exists within the organisation, its aim being to monitor the performance of the organisation and report the results to decision makers.

The data indicate that there is firm ownership of the monitoring and reporting process. Each department has its own KPIs, while the business performance department oversees the whole process. Many respondents reported good practice of regular reporting. The importance of having an effective monitoring and reporting process is highlighted in the literature as well, where it is acknowledged that if performance is not properly monitored, the PMS becomes weak and may fail to achieve its desired objective; failure may occur as a result of the lack of a proactive review process, which helps in detecting unexpected variation at an early stage (Kennerley and Neely, 2002).

The data from this study show that there is an important role for information technology in creating more efficient reporting and monitoring. For example, automation of data collection is important for effective reporting, and computer applications make data

analysis easier and better. Nevertheless, there is reassuring evidence that information systems and technology are used properly in the organisation to support this process and that no weakness exists in this area. A study by Kaplan and Norton (1992) considered analytics and information systems monitoring and reporting as the cornerstone of the success of PMS. Thus, utilising the existing information systems capability in performance monitoring and reporting process is a means to ensure great support to PMS.

5.3.4 Departmental Management of PMS Reporting and Monitoring

This study finds that all organisations have established new departments responsible for measuring business performance, in order to achieve commitment and effective management of PMS reporting and continuous monitoring. This approach is in line with previous research, which has stressed the need for an organisation to have a quality control department that is responsible overall for continuous improvement (Kaplan and Norton, 2000). Feedback from interviews indicates that the performance monitoring department is effective and is managing the process in the organization very well. Hence, it is very important that management provide continuous support to this department to empower it to review results and make the necessary recommendations to the whole organisation.

5.3.5 Weaknesses in the Monitoring and Reporting Process

This study finds evidence of weak use of the outcomes of monitoring and reporting to support business improvement. Reports that show the strengths and weaknesses of the business should be utilised to improve the business, which does not happen now. There are many reasons for the ineffectiveness of using monitoring and reporting results, such as lack of an ability to analyse the outcomes, the lack of an action plan and insufficient follow-up to resolve weaknesses. Moreover, respondents believe that performance results reporting in the current situation is not effective, as the management and staff cannot see the value of the results. Respondents therefore suggest that performance reports need further review and analysis to enable meaningful results and recommendations to be extracted, and close follow-up of actions arising from the results. One of the causes of PMS failure is the lack of a proactive review process and inadequate data analysis and use (Kennerley and Neely, 2002). There is opportunity for

improvement using advanced analysis to create more sensible reports that will assist in generating recommendations and establishing follow-up of actions.

5.3.6 Managers' Role in Monitoring and Reporting

Data revealed that managers' involvement in reviewing and monitoring business performance results is limited. Respondents mentioned that managers do not spend enough time on reviewing their departmental KPIs and understanding their business weaknesses; nor do they spend sufficient time on meeting their staff and discussing the results. This weak monitoring may cause the PMS to founder. In some cases, managers just take bits and pieces from PMS and do not utilise the system effectively.

This situation does not support successful PMS implementation, especially at the present time when there is increasing pressure from the government to receive regular reports on the organisation's performance. Hence, managers need to spend more time monitoring and analysing and verifying the results, and use the outcome to improve their business. According to a previous study conducted by de Waal (2002), it is fundamental that managers are involved in PMS results analysis and using results to improve the business.

SUMMARY FOR PMS DESIGN AND IMPLEMENTATION CSFs

Although the feedback in this study confirmed that there is a clear understanding and acceptance among managers of the importance of linking PMS to the organisation strategy, the concept of such as strong link is not well established in the organisations studied. Likewise, a majority of managers reported weaknesses and gaps in PMS design and implementation, notably a weakness in cascading PMSs to all levels, which has a negative impact on people's engagement in system implementation. The PMS design is reportedly often over-complicated and not user-friendly. Also, the number and selection of KPIs are not sufficiently focused.

Overall, respondents are satisfied with the continuous monitoring and reporting process, although some said that data analysis is weak and the involvement of management is limited. However, this situation is capable of improvement, especially by more involvement from managers in reviewing results regularly. Continuous monitoring and

reporting of the PMS are fundamental to achieving its objectives. However, this study found evidence of weak use of the outcomes of monitoring and reporting to support business improvement and limited involvement of managers in reviewing and monitoring business performance results.

A- PEOPLE CSFs

This section analyse the CSFs related to people, this includes the following CSFs found in the literature to be with high impact on PMS implementation:-

- 4 Clear targets and business benefits
- 5 Top management commitment and support
- 6 Staff involvement in the system
- 7 Skilled resources running the system
- 8 Staff training and awareness

5.4 CLEAR TARGETS AND BUSINESS BENEFITS

Setting clear targets for business performance is a key management tool (Locke and Latham, 2002). Clear targets assist employees to understand the organisational purpose of the business and enhance productivity and efficiency (de Waal, 2002). In addition, motivating people by providing performance incentives and setting personal targets, at organisation level or at staff level, is an important part of preparation for and development of PMS (Blasini and Leist, 2013).

Although the majority of staff in our interviews reported understanding the purpose of PMS implementation, there were some serious disagreements: 54 percent of the respondents said PMS targets were clear, while 27 percent said the targets were clear to managers and senior staff but not to lower level staff. The rest, 19 percent of respondents, believed they were not clear to anyone. Chart 5.4 illustrates these findings.

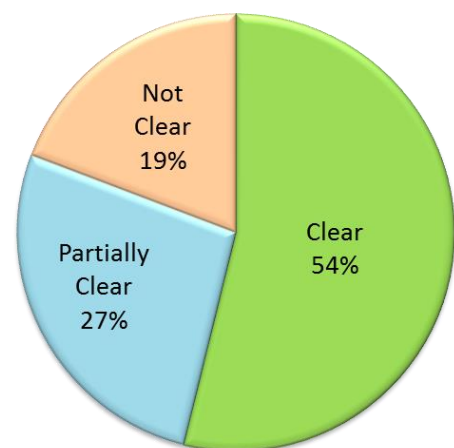


Chart 5.4: Clear targets

The following sets out further findings about the need for clarity of PMS targets and the visibility of the business benefits that PMS may add.

5.4.1 Importance of Setting Clear Targets

Data in this study indicate that the majority of respondents believe in PMS and are convinced of its benefits, especially managers and senior staff. There is a good level of understanding of PMS targets and objectives. Nevertheless, this level needs to be raised in order to encourage people to adopt the system and support its success. Everyone in the organisation must understand the business objectives of the system and appreciate its value if it is to succeed (Kaplan and Norton, 1996b).

However, although 54 percent of staff are aware of PMS objectives, a large number are either not aware of either the objectives or the targets. Therefore, the objectives must be clarified and explanations of the expected benefits must be given to all staff if they are to be convinced. Respondents recognise that training and awareness raising are essential. If people do not see the value of PMS, it will be no more than just another process in the organisation. Previous research has found that if the business benefits and personal benefits are not clear, then there is a high risk that staff will not be motivated to implement a new initiative (Radnor and Lovell, 2003). Furthermore, this study finds that staff at lower levels do not see the benefits of PMS or understand the targets as well as senior management, as they have not been involved in PMS development and implementation. Another previous study revealed that one of the main reasons why PMS was not implemented successfully was the perceived lack of benefit from proceeding with performance measurement (Bourne et al., 2002). This study finds a weakness in making staff see the benefits of PMS and the organisation therefore needs to communicate these much more effectively.

5.4.2 Clarity of Targets and Benefits to Managers

The feedback received in this study indicated that there are gaps in the clarity of targets. Managers in particular complained that the targets are not clear to staff. Further analysis was conducted to understand the cause of this confusion, which indicated that some targets are on paper only and hence staff are not aware of them. Moreover, the targets

are visible to senior staff only. This poor awareness created a lack of interest and weak ownership of targets. Locke and Latham (2002) stressed the need to set clear targets in order to support the key functions that drive business performance. As respondents suggested, it is vital that targets are reviewed to make them simple and clear and that they are communicated to all levels of staff.

Although managers in this study believe in the importance of linking personal goals to PMS objectives, there is no evidence that establishing personal targets is part of PMS design and implementation. Also, there is poor evidence in this study that PMS supports cascading organisation targets to individual level. Previous research confirms that offering performance incentives and setting personal targets is strongly motivational for employees, and target setting at both organisation and staff level is an important part of PMS development (Blasini and Leist, 2013). Indeed, our respondents recommended considering setting personal targets as part of PMS design, and linking achievements in personal targets to benefits.

5.4.3 The Visibility of the Value PMS Adds to Individuals and to an Organisation

The data gathered in this study suggest that there are different views among respondents about the clarity of PMS value added. The respondents fell into two groups. The first group, representing 48 percent, stated that all staff have understood the purpose of introducing PMS and can see the added value of implementing this system. The other group, representing 52 percent, said that there is a lack of understanding of PMS benefits and added value. Interestingly, both groups consisted of staff at different managerial levels; thus, some senior managers believe that there is a lack of clarity among staff, while others believe that the system value is clear to all. This confusion indicates a problem in the understanding of PMS values and objectives. A similar study emphasised the importance of clarifying the purpose of introducing Balanced Score Cards (BSC) (Morisawa and Kurosaki, 2003).

5.5 MANAGEMENT COMMITMENT AND LEADERSHIP SUPPORT

The success of major projects such as the Performance Management System (PMS) in any organisation is largely dependent on top management commitment and support (Richardson, 2004). Their involvement is a cornerstone in helping a project achieve its goals. Furthermore, top management requires putting the PMS as an important priority, and they need true dedication for a project to be successful (Chrusciel and Field, 2003).

It has been found that there is strong believe among respondent of the management role in PMS success. Chart 5.5 shows high level findings. 16 respondents represent 62 percent mentioned the importance of management commitment and support in PMS successful implementation. Nevertheless, 15 respondents represent 58 percent reported weak commitment in the current situation. Only 5 respondents represent 19 percent believe that the current commitment and support is sufficient to support PMS implementation. In the following section, a brief analysis of the top management commitment and leadership support to PMSs will be outlined.

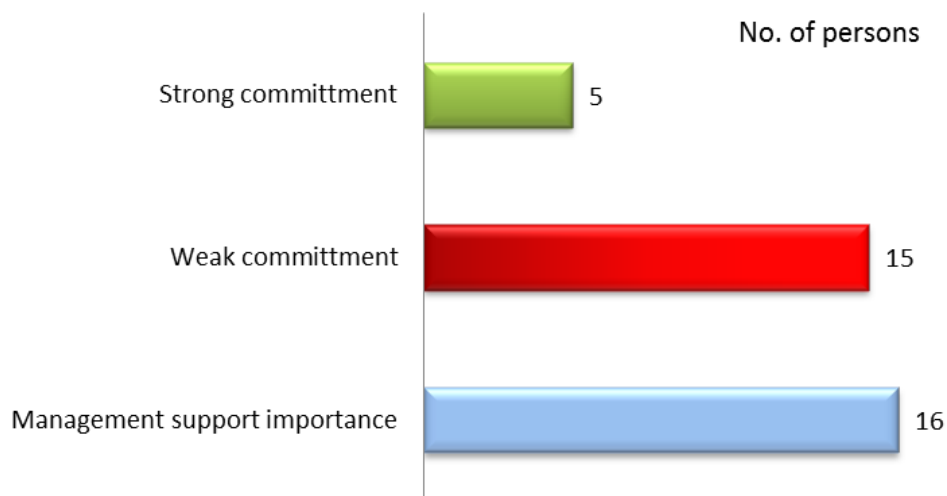


Chart 5.5: Management commitment

5.5.1 Senior Management Commitment and Support

Many researchers considered lack of top management commitment and support as one of the main reasons for PMS failure (Kaplan and Norton, 2000)). According to participants' feedback, this commitment will not be effective unless the leaders participate effectively in developing and implementing the PMS. Also, engaging in

setting targets and objectives, communicating missions to all levels, and monitoring and controlling the progress and involvement in the implementation to the end are of extreme importance. Management commitment as an essential requirement needs to be demonstrated at all levels within the organisation in order to promote the culture of the Performance Management System (Morisawa and Kurosaki, 2003). However, it is apparent from respondents' feedback that there is limited use of the system by senior managers and a lack of understanding of its benefits for the business, which does not support successful implementation of a PMS. Top management commitment and the benefits from a performance measurement system are being perceived as the two main factors which drive PMS implementation (Bourne et al. 2002).

With results similar to previous research, this research also found strong evidence that top management commitment and support for PMS implementation is weak and needs further improvement. Respondents mentioned many examples of weak top management commitments. For instance, leaders don't participate effectively in setting targets, objectives or even in approving business plans. Also, top management often fails to ensure the appropriate resources are allocated for the project. Furthermore, leaders are not found to be an ideal role model for the staff. These are a few examples demonstrating the lack of management commitment and leadership support for PMS implementation. Researchers argue that top management commitment is widely taken as a major factor influencing the success and failure of project implementations (Richardson, 2004).

5.5.2 Limited Involvement of the Senior Management

Current research has found weak involvement and engagement from top management in PMS development and implementation, which has a negative impact on the successful implementation of PMS within an organisation. There is rapidly growing literature on the importance of involving the senior leadership in the process of development of large projects such as the Balanced Scorecard (Richardson, 2004). This limited involvement from the top management occurs in many forms. For instance, top management often shows commitment to the project at the beginning before showing weak involvement and engagement during later stages of implementation. There is not enough

involvement and efforts in monitoring and controlling the progress of a PMS implementation. Previous studies confirmed that one of the common problems in business improvement projects is the limited involvement of the senior management (Kennerley and Neely, 2002).

Researchers stated that experiences have repeatedly shown that the single most important condition for success is the ownership and active involvement of the executive team (Kaplan and Norton, 2001). Further evidence shows that top management roles communicating missions to all levels during different stages of implementation is not effective. This weak engagement could be attributed to their weak role in developing and implementing PMSs. Therefore, it is very vital for a PMSs' success to have top management involved heavily and engaged in all activities related to project development and implementation.

5.5.3 Weak Leadership Skills

Most respondents blame top management for signing the project off and showing a high level of interest and enthusiasm at the beginning before delegating the responsibility and management of the PMS to lower level managers or senior staff after a while. The lack of championing for the project from someone who has a high level of authority and responsibility are responsible for sending negative messages to the organisation about the value of the project to the business. Literature concedes with this argument, whereas another previous study confirmed that active and visible support from the management of the organisation, often in the form of a champion for the application, is an essential part of a leadership role in ensuring successful PMS implementation (Chrusciel and Field, 2003).

In a study conducted by de Waal, (2002), the results indicate the crucial role this plays in achieving a successful PMS, and the importance of management being a role model to the organisation using performance management. There is evidence in this study that top management are not very well engaged and don't play a suitable role model for staff in leading successful PMS implementation. This weak engagement has a negative impact on overall PMS implementation. Therefore, further efforts are needed to

convince managers of the importance of their role in demonstrating a role model in PMS implementation.

Current research appears to validate the view that senior managers don't seem to play a champion/ role model for PMS implementation. Therefore, it is very important for a successful PMS implementation to have a champion that can lead this project to success from a very senior level rank.

5.5.4 Weak Sustainability (Declining Interest, Low Priority, Busy Schedule)

It has been observed from certain responses that managers don't give enough time to the PMS follow up, and that it is a low priority task for them. Researchers stress the importance of the availability of management's time to review indicators results, or otherwise the PMSs' success will be threatened (Kennerley, Mike, and Andy Neely, 2002). Without managers who understand PMS's value and who make it a high level priority, it will always be subject to failure. Therefore, to support successful PMS implementation it is essential that managers use their PMS more frequently and give it more time. For instance, the organisation needs to make PMS results a fundamental part of regular business reports so managers provide justifications and explanation for deviations in KPI results. Also, the PMS needs to be in the senior management agenda in all management meetings. Consequently, these tasks will enhance senior managers' ownership of the PMS, making enough spare time to use it.

5.5.5 Limited Visibility of PMS Values and Targets

Respondents complained that visibility of the PMS values and objectives were not very clear for senior management. They also indicate that the overall implementation strategy is not clear to many managers, and they don't understand the overall vision of the project. According to Radnor and McGuire, (2004), one of the challenges facing a PMS is the lack of clarity of vision and leadership by senior management to position the PMS effectively within the department's overall performance improvement agenda. Respondents provided examples of the weak visibility of the PMS vision by managers, such as the weak alignment between the PMS and organisational strategy, as well as the limited understanding of the PMS targets and objectives by managers. Therefore, it can

be concluded that more efforts are needed to improve the leaders' understanding of the PMS vision to lead to successful project implementation.

To sum up, involving managers in the early stages of a PMS's development is essential to ensure their buying in and their consensus understanding from the beginning. If they have conflicts, they should be solved in early stages, as this will help in designing a better system. It is a basic requirement for any project to have top management ownership from the beginning, as otherwise, the risk of failure is high. A lot of literature stresses the importance of gaining consensus, and buy-in from senior management early on in the effort can help establish legitimacy and visibility for the project (Ariyachandra and Frolick, 2008). This study hasn't shown any feedback highlighting the importance of the existence of a consensus among managers as a team to implement a PMS in the early stages of the PMS development, but lack of feedback doesn't mean that there is a lack of management buy-in for PMSs, as this could be attributed to other reasons.

5.6 STAFF INVOLVEMENT ANALYSIS

Staff involvement in the PMS development and implementation is considered to be a critical success factor in driving toward continuous improvement and high performance. According to Dr. Jevon Powell (2011), staff involvement has many benefits for the organisation, among the most notable being that it increases employee productivity for all level of employees, including low-skilled clerical employees (Jones and Kauhanen, 2010). It also improves organisational decision-making capabilities (Apostolou, 2000) and creates a positive work attitude (Leana et al., 1992), as well as leading to employee empowerment, job satisfaction, creativity, commitment and motivation, as well as the intent to stay (Apostolou, 2000; Zhang and Bartol, 2010).

Involving staff in the decision making process and strategic initiatives, such as the PMS development and implementation, improves the chances for success (Sadikoglu and Zehir, 2010). It is the management's responsibility to seek employee input on critical decisions; otherwise, employees may feel disengaged and thereby frustrated by the organisation. Furthermore, there are other benefits of staff involvement, such as building a team work environment, increasing staff satisfaction, improving retention of talented staff and enhancing commitment and motivation.

This study revealed some important findings which are highlighted and compared with literature in the following section. More details will be outlined in the following discussion to build a better understanding about staff involvement in developing and implementing a PMS within an organisation. . Major findings include:-

5.6.1 Staff Involvement in PMS Development and Implementation

Regarding staff involvement, feedback was received from 21 managers during the interview. Five managers, representing 23 percent of the total respondents, believe that the staff is very well involved in the system development and implementation process. However, 9 managers, representing 42 percent, reported that only upper level and senior managers are involved in the PMS development and implementation process, leaving lower level staff uninvolved. 7 managers, representing 33% of the total respondents, said the overall level of staff involvement is quite poor, chart 5.6 illustrates these findings. Many researchers emphasised the importance of staff involvement, saying that it presents many benefits to the organisation (Jones and Kauhanen, 2010). According to

them, staff involvement increases employee productivity, including productivity of low skilled employees that do routine tasks. Other studies find that staff involvement leads to greater employee empowerment, higher job satisfaction, intense creativity, superior commitment, and higher motivation and lower turnover (Apostolou, 2000).

In general, it is apparent that the majority of managers (75% of total respondents) are not satisfied about the current level of staff involvement in the PMS development and implementation. There could be many reasons for this poor and limited involvement of staff in the PMS implementation, and it could be attributed to the limited number of staff using the system

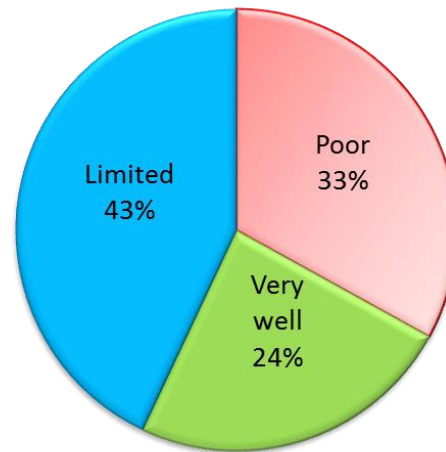


Chart 5.6: Staff involvement

Also, poor staff involvement in PMS development and implementation could be a result of weakness in the design of the PMS. The PMS may not be designed properly to involve all staff. Another reason could be the lack of a strong link between PMS and the individuals' routine work. Nevertheless, this is one of the risky areas that need major improvement. Researchers considered poor staff involvement as one of the reasons for PMS failure (Kaplan, 2000). One of respondents emphasised the importance of staff ownership and belief in the system. He believes that if the PMS had been embedded in the staff's daily work then chances for success could have been better. Furthermore, few respondents have reported an apparent lack of interest about PMSs among staff. The reason for the lack of interest may be because staff do not see the benefits and value of the system. No information was found confirming that sufficient effort was made to convince staff about the potential of the PMS. For the aforementioned reasons, on the basis of the evidence currently available, it can be suggested that the issue of staff involvement is critical and requires a huge effort to overcome it. A PMS could fail due to the weak involvement by staff, and therefore it is crucial to develop a full strategy to involve staff in PMS development and implementation. This strategy may consider reviewing the design for more effective involvement of staff, and it may include a better link between the PMS and individuals' daily work, which is key to ensuring better participation. In addition, it is very important that employees see the benefits of their effective involvement in a PMS.

5.6.2 Limited Awareness Impact on Staff Involvement

This study finds that one of the root causes of the poor involvement of staff is the weak awareness of staff about the project. There is strong evidence that lower level staff have not received a satisfactory level of awareness about PMS objectives and values. Therefore awareness and understanding among lower level staff is weak. This causes less involvement and less interest in a PMS's implementation and use. Nevertheless, literature stresses the importance of securing awareness and understanding within the organisations in which the BSC will be introduced (Morisawa and Kurosaki.2003). It is worth mentioning that staff involvement requires proper awareness and training. Without having the right education and awareness, employees will see barriers in using the system, and as a result they will try to avoid using it. Hence, the awareness will result in better involvement of staff in using a PMS.

Given these facts, it can be concluded that the level of training and awareness needs to be extended to all staff at all levels within the organisation in order to enhance the level of involvement and achieve the best results of a PMS.

Previous studies stressed the importance of managers understanding the meaning of KPIs to ensure they involve effectively in PMS implementation (de Waal, 2002). A closer look at the data indicates that this argument is valid, as there is evidence in the field data that managers are aware of a PMS's value and the benefit for the business. They are also aware of PMSs' different elements as a result of their involvement in the development and reporting of results. This consensus between literature and findings of this study indicate that there is no problem in this area and the level of managers' involvement will be effective and will contribute to the PMS's success.

5.6.3 Lack of Interest and Weak Ownership of PMS

There is a weak ownership of PMSs among the majority of staff. PMSs are considered in isolation and not part of regular usage by the majority of the staff, and they don't show much interest in using it. Previous studies described user involvement as the reality in which the ownership of the system is in the hands of the end-users (Chrusciel and Field, 2003). However, the weak ownership of the PMS among users could be attributed to the limited engagement of staff in developing the system, as they feel it is not their project and belongs to someone else. Another reason could be the weak design, which makes it isolated from the daily work environment. This may be attributing to

poor or lack of integration with other systems. Nevertheless, to improve the situation of weak ownership of the PMS by the staff, more engagement is recommended by staff in different stages of the PMS life cycle, starting from design stage and up to the implementation stage. The involvement could be tailored to the business needs and staff skills. For instance, senior managers and key staff should be capable of involving a strategic part of the design, or in other words, high level objectives and targets derived from the strategy. Middle level staff can contribute effectively to the design of operational part, and they can assist in designing KPIs that support the objectives and targets. Lower level staff should understand basic requirements and functions and contribute effectively to the implementation of PMS.

5.7 STAFF SKILLS AND COMPETENCIES ANALYSIS

In today's organisations, skilled staff are the human assets that are the centre of attention and considered a competitive advantage for the organisation (Maltz et al., 2003). In addition, Schoonover and Anderson (2000) have anticipated the use of human resource competencies as a strategic intervention to continue and even accelerate. Furthermore, according to Schoonover, the ways human resource activities are performed must change substantially to respond to business challenges. However, as the level of competencies and skills within the organisation is a vital factor and an enabler for a PMS's success, this study investigates this matter to assess and understand the current level of staff skills and competencies. The main findings are outlined in the following analysis:-

5.7.1 Proponents of Right Skills Presence

This study finds that the majority of respondents (about 59 %) believe that the existing employees, with their current skills and competencies, are able to run a PMS effectively. On the other hand, 33 percent of participants believe that the level of existing skills are medium and require more training to run the system fully. Only 8% of respondents are completely not happy about the existing level of skills – see chart 5.7.

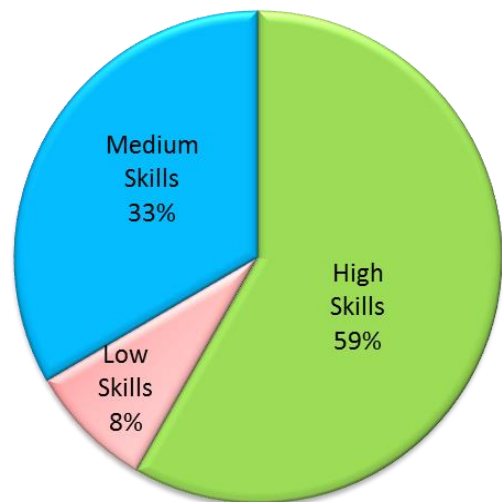


Chart 5.7: Staff skills

According to Kennerley and Neely (2002), the lack of the necessary skills and human resources has a negative impact on the success of PMS implementation. However, the spectrum of competencies required to run a PMS encompass knowledge, expertise, skills, intelligence and aptitude, as well as the personal and behavioural skills required for successful implementation of a performance management system (Kennerley and Neely, 2002).

In summary, there is evidence that there are some skills and competencies needed to implement a PMS are available in the existing workforce. But the number of existing resources is not enough to support the successful implementation. It could be argued that some of those resources are not fully trained to use a PMS, and so, with proper training, the staff with medium level skills can be upgraded to high level skills.

5.7.2 Proponents of Limited Skills Availability

The previous discussion highlighted that the presence of certain levels of competencies and skills within the organisation is essential for successful implementation of a PMS. Also, this study finds that there are staff with high skills and competency that exist in the organisation. However, although that there are skills and competencies within the organisation, there is evidence of a shortage of resources as a number of heads being in many areas. More staff with those skills is required to support PMS implementation. Researchers identified one of the root causes of failure in a PMS is when the PMS needs more resources to implement (Radnor and Lovell, 2003). This critical point was reported by 9 managers, and therefore it seems like it is a real problem. Researchers also stated that it is essential to have sufficient resources and team skills to achieve success with a PMS (Ariyachandra and Frolick, 2008).

However, some respondents complained that they were forced to stop reporting of KPIs due to shortage of staff. Therefore, as the availability of enough number of resources with specific skills and competencies in the organisation is not sufficient, the adequacy of staff with those skills needs to be assessed to find solution.

5.7.3 Shortage of Skills and Resources

Designing and implementing a PMS is a new concept to many organisations in UAE. Therefore, using the services of external consultants to deliver professional expertise to initiate a new program such as a PMS is the right decision, especially when existing teams lack the skills required in this field. Nevertheless, a good consultant can add a significant amount of value to the project. Conversely, selecting the wrong consultant can cause the whole project to fail. Previous studies confirmed this argument and concluded that one of the main risks that may cause the failure of a PMS is using inexperienced consultants (Kaplan, 2000).

There is disagreement among managers about the need to use external consultants to support the design and implementation of a PMS. For instance, 8 managers said that the organisation needs an external support while 6 managers said that the internal resources are able to design and implement the PMS. But in reality, all surveyed organisations used external consultants to support the development of a PMS. Interestingly, no negative feedback was found about the consultant performance, knowledge or contribution in this project. Therefore, it seems that the consultants were experienced and could support the introduction and design of a PMS as well as meet the expectations of users. Thus, it can be said that there was careful selection of experienced consultants in the case study organisations. Therefore, it is obvious that the surveyed organisations didn't face any problem with external support quality.

When managing a project, it is fundamental to determine how much work effort is required for the given tasks. A PMS is a strategic project, so it needs a huge effort and time to be developed and implemented. Previous studies have also stated that time and efforts are required to build PMSs (Bourne et al. 2002). This study finds an agreement among managers with this argument. For instance, they proposed to develop a PMS in stages and phases to ensure the resources are allocated properly and enough time is given to finish all tasks. Furthermore, in support of the previous discussion, the PMSs were designed by external consultants, and there is a strong belief among managers that the consultant is required to do the design while the rest of the work, such as fine tuning of KPIs, reviewing, reporting and implementation, can be done with the existing resources. Hence, the effective management of resources in the project time scale is critical, and so project management skills are an important element of the successful implementation of a PMS.

5.8 STAFF TRAINING AND AWARENESS

It is vital for staff to be aware of any changes to the organisation, either internal or external, that could influence performance (Kennerley and Neely, 2002). Employees' understanding and acceptance of the system and, on the other hand, their resistance to using the system are strongly influenced by their awareness of its benefits (Radnor and Lovell, 2003). Staff awareness and understanding of Performance Management System (PMS) objectives are essential for its successful implementation (Kaplan and Norton, 1992). Hence, training and awareness building are fundamental requisites for the introduction of new systems such as PMS, and it is a matter to which an organisation needs continuously to give a great deal of attention. This study has explored many aspects of the training and awareness process to assess the current situation in the surveyed organisations, especially organisations that are responsible for providing essential public services such as power, water and sewerage. Their workforce in particular must be highly skilled in order to meet customers' expectations and satisfaction. Also, this study tries to shed light on the causes of success or failure in implementing PMS effectively.

5.8.1 Level of Training and Awareness Provided

This study finds that an alarming 79 percent of respondents believe that they received insufficient training about PMS. Among these, there were two groups, one group, representing 42 percent, that said the training is weak, and the other, representing 37 percent, that said it is limited and does not meet business requirements. See chart 5.8.

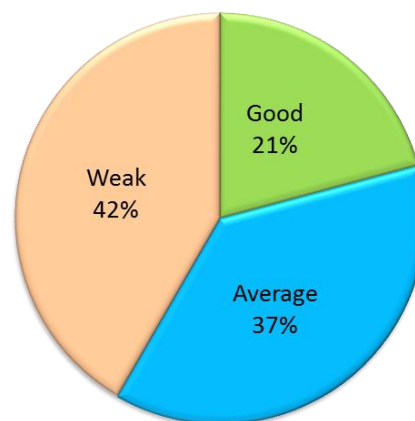


Chart 5.8: Level of training and awareness

Interestingly, most of the unsatisfied respondents are from the most senior managerial level. Interviews revealed that staff were expecting an advanced level of training for PMS. A previous study has indicated that staff training enhances capacity, job loyalty, job satisfaction, motivation and productivity (Zhang and Bartol, 2010).

As already stated, most staff believe that the training provided was either not sufficient or was limited to system users and senior managers, a view verified by the data collected. Staff at the lower level of the organisation received little or no training. This lack of sufficient training at all levels within the organisation makes PMS implementation vulnerable, as staff awareness and understanding of PMS objectives are essential for the success of the system (Kaplan and Norton, 1992).

Interestingly, this study finds a few people who believe that PMS is simple to implement and use and does not require any additional training. The majority of the satisfied respondents are middle managers working in the business performance department, which is responsible for providing the relevant training to the organisation. This may explain their response, as they have a different view, as service providers, from their customers. However, most respondents believe that staff are in need of more training in order to be able to use PMS effectively. Thus, raising staff awareness about PMS and training them in its implementation and use are basic requirements.

5.8.2 Poor Design of Training Programme

Many comments were received from respondents about the weak design and inadequate preparation of training and awareness plans. Feedback also indicated that the training is not effective; for instance, respondents mentioned the weak link between the training provided and the desired outcome. Failings were identified in both the quality and quantity of training. Similarly, some respondents stated that the training was not well designed, blaming its poor scope and lack of thoroughness. Not surprisingly, many respondents believed that more preparation and education are required to support PMS implementation. Morisawa and Kurosaki (2003) also found that an adequate preparatory period is needed before introducing PMS to an organisation.

In order to prepare properly for PMS, therefore, specialists need to review and improve the scope of the training plan and the awareness campaign, focusing on building skills and competencies to meet business needs. Also, the new scope of an effective training plan needs to be comprehensive for all levels of the organisation. Successful PMS implementation requires the involvement and participation of all staff so that everyone

can understand the objectives and see the benefits that PMS will bring to the organisation. Failing this, the system will remain limited to the handful of users directly involved in it, which means it will not succeed throughout the organisation.

5.8.3 Lack of Training and Awareness Strategy

The data in this study indicate that an organisation is required to have an effective strategy for staff development and training, so as to help employees improve their skills and contribute to overall performance improvement. It is well known that training on how to use a new application is critical for its successful utilisation (Chrusciel and Field, 2002). Evidence from this study is also in agreement with the literature, which demonstrates that the absence of a clear strategy for training and lack of clear vision for using PMS will cause the system to fail (Morisawa and Kurosaki, 2003).

The feedback received in this study suggests that the most important reason for lack of awareness about PMS could be the absence of an overall training strategy in the organisation. Indeed, there is currently no effective system for managing training and improving competencies within the organisation. The training process is weak in general and requires major improvement to support the business. Some organisations have recently started to develop a competency framework to link business needs with existing skills and plan for the upgrading of those skills accordingly.

5.8.4 Efforts to Improve the Quality of Training and the Level of Awareness

This study finds that there are gaps in training and awareness in terms of both quality and quantity. Only 21 percent of respondents believe that good training is in place. This means that only a small number of employees have acquired the necessary awareness. This may be because of a lack of a clear strategy for training, a limited training budget and a lack of understanding of the return on investment from the training.

The feedback further suggests that there is too little corporate effort to improve people's understanding and awareness of PMS. Training of the wrong scope or poor quality may not yield the expected outcome; therefore, training must be designed to fit the purpose and add value. Hence, it is important that the organisation pay more attention to the quality of training provided. Good quality training will provide large returns for the employer in the form of increased productivity, knowledge, loyalty and contributions

from staff (Phillips, 2003). The training must have the right content and be delivered to the right people at the right time.

SUMMARY FOR PEOPLE CSFs

In summary, although there are different views about clarity of targets and PMS benefits, most of the issues raised were related to poor awareness and training, weak design and poor motivation. These issues are discussed in more detail in other sections of this paper.

The study found strong evidence that top management commitment and support, as well as involvement and engagement in PMS development and implementation, are weak and in need of improvement. Senior managers do not seem to play the role of champion with regard to PMS implementation. Ownership of the PMS among the majority of staff is also limited. However, although involving staff in PMS development and implementation, improves the chances for PMS success, most managers are dissatisfied with the current level of staff involvement in the process. Poor involvement of staff could be attributed to weak awareness of the project and their limited role in implementation.

The presence of certain levels of competencies and skills within the organisation is essential for successful implementation of a PMS. The majority of respondents in this study believe that the existing employees, with their current skills and competencies, are able to run a PMS effectively, but that staff awareness and understanding of PMS objectives should be enhanced. Most respondents believe that they have received insufficient training about the PMS. They suggest that the most important reason for lack of awareness about PMS could be the absence of an overall training strategy in the organisation.

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C- TECHNOLOGY CSF

This section discuss the technology CSF. In this group only one CSF found in literature to have impact on PMS successful implementation as follow:-

- 9 IT infrastructure and support.

5.9 IT INFRASTRUCTURE AND SUPPORT ANALYSIS

Many organisations today realise that Information Technology (IT) plays an increasingly vital role in the delivery of business processes (Melville, et al. 2004). This study has reported that 77% of participants value the critical role that IT provides to support business success. However, IT as an enabler helps the business to improve its performance and achieve more success through efficient information management. IT function provides the organisation with the ability to manage, capture, store and deliver the right information to the right people at the right time, which is the most important outcome of Information Management.

This study discovered a paradox in IT infrastructure of the organisations covered. Advanced IT infrastructures are visible in all organisations, but most of the information is still based on simple spread-sheets that perform key business activities such as planning, budgeting and forecasting. These findings are confirming previous literature where Poon, et al. (2001) found that, in spite of the enormous investments in enterprise initiatives, many organisations still face difficulty finding the information they need to support decision making. However, in such an environment, leaders are not able to gather, analyse and act on information to deliver high value strategic insights. Therefore, with the growing importance of information management, the role of Information Technology as an enabler is becoming very critical for business success (Melville, et al. 2004).

Chart 5.9 highlights some high level issues found in this study. Further detailed analysis is in the following section.

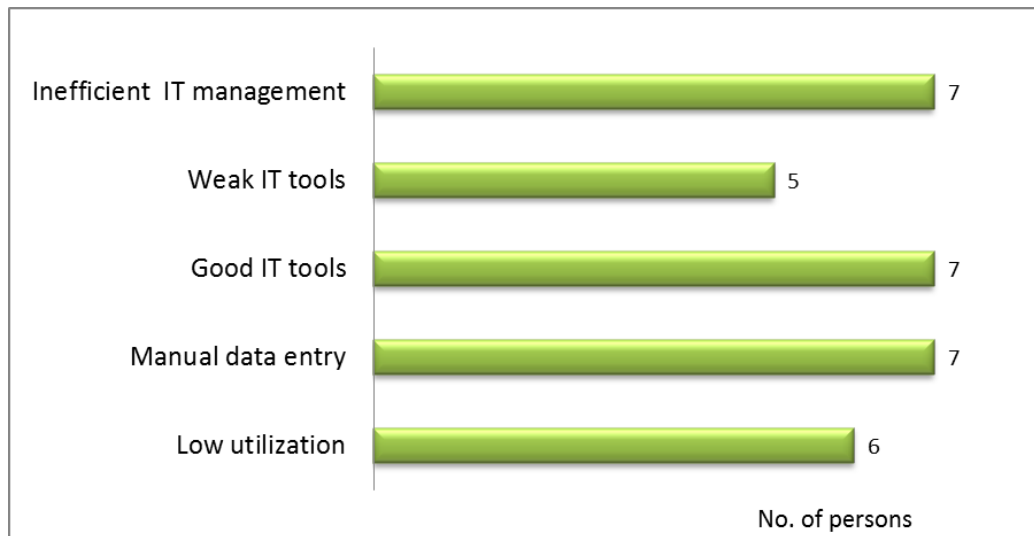


Chart 5.9: IT issues

To assess the existing IT infrastructure and the support it provides to the business, as well as understanding its role in a successful PMS implementation, further analysis of case study organisations was conducted. The discussions in the next few sections will outline the key arguments and link them to the literature review:-

This study has found that organisations make heavy investments in Information Technology systems. Organisations are equipped with the most recent and advanced IT applications. Previous studies suggested that one of the main reasons for success and failure for a PMS is currently believed to be the need for a highly developed information system (Bierbusse and Siesfeld, 1997). Case study organisations are using a set of business suite applications covering all business applications from world leading vendors. For instance, Oracle is used for financial management, MAXIMO is used for inventory management and maintenance, GIS is used for asset management and HRMS is used for managing human resources functions and so on. In addition, the communication and data transfer infrastructure is based on very advanced fiberoptic networks and reliable servers. Therefore, it could be concluded that lack of investment in IT is certainly not an issue for organisations covered in this study.

5.9.1 Utilization of Information Technology in the Business

This study reveals that Information Technology was not utilised effectively to analyse data and support the decision making process in the case study organisations. Previous studies stressed utilising information systems to support data collection and analyses (Morisawa and Kurosaki, 2003). There is an agreement among respondents that the infrastructure and applications are advanced, but the gap is in the utilisation and proper use of those systems to support the decision making process. What is meant by low utilisation is that the software comes with many facilities built in, but users, due to some reasons like a lack of proper training or complicated design, still do not use this software effectively. They do part of the work manually and consume a lot of efforts and time to produce reports, while if they used the system it would take much less time and effort. Furthermore, more utilisation of the existing IT could be achieved through reviewing the design of the existing application to ensure it is user friendly, and, more awareness and training would also improve the utilisation.

5.9.2 Automation of Data Collection

It is apparent from feedback that the automation of data is limited. Most of the data is entered manually. Researchers argued that Balanced Scorecard has to be implemented in such a way that it can be adjusted automatically in accordance with day to day changes (Richardson, 2004). Poor utilisation of powerful IT applications is resulting in a huge waste of investment. This is certainly one of the areas that require serious attention to solve it. In addition, this study finds that there are many reasons behind the limited automation of data. One of the major causes is the weak integration between various IT applications within the organisation. For example, Oracle is used for financial data, MAXIMO is used for inventory data, and HRMS is used for human resources data. To produce reports from these systems, data needs to be collected from different sources in an isolated manner. This collection is still not fully automated, and the staff needs to enter data manually at many points. Although the capability of the system is high, the process and central system to collect data automatically from different sources and maintain them in a central database is absent.

5.9.3 IT Management

This study finds that there is no constraint on the information system flexibility to collect data. Literature indicated the lack of flexibility of information systems to collect the required data as one of the PMS failure causes (Kennerley and Neely, 2002). Existing systems are capable of managing the data effectively. For instance, the Oracle system is used for financial reporting very effectively, and MAXIMO is used for inventory and asset management properly. Other systems, such as Oracle based HRMS, support all human resource functions in a very good way. Hence, it is obvious that the existing systems are flexible and capable of managing all required information effectively. Researchers have highlighted the importance of the ease of data accessibility through IT (Bourne et al., 2002). Interestingly, no feedback was found about the easy accessibility to the data through IT systems. However, this doesn't mean that there is a problem in this area. It seems that there is good accessibility in presence, and therefore no one complained about the accessibility.

This study finds that there is a weak linkage between IT and business processes. Previous studies reported that PM success depended on strong IT and business alignment and focusing on effective IT infrastructure development (Ariyachandra and Frolick, 2008). Many managers interviewed in this study stressed the necessity for better linkage and integration among different IT systems. Even though there are some automated systems, integration into one central system have yet to take place. Therefore, strong links need to be established between IT and business processes in for successful PMS implementation.

5.9.4 IT Strategy and Governance Mechanism

According to the feedback received from senior managers in this research, it is obvious that there is no governance mechanism or IT strategy governing the IT process and implementation. Several studies have emphasised the use of specific IT governance mechanisms that can help organisations manage their performance (Balogun and Hailey, 2004; Neely et al., 2008). Unfortunately, this study reveals that the lack of clear IT strategy in the business is still missing. Therefore, absence of IT strategy and governance mechanism will have a negative impact on the effective use of IT to support a successful PMS implementation.

In summary, it is obvious from the previous discussion that senior managers in the case study organisations are not very satisfied with the way IT systems are managed and utilised. They believe that the outcome is very low compared to the capabilities of the system and the investment made on IT. It seems from the previous discussion that the organisations need to investigate and review IT strategy to ensure that there is a clear vision and a proper governance model for IT. Furthermore, IT designs need more improvement to become more user friendly and inviting. Finally, IT utilisation is a real issue, and more efforts are required to improve the utilisation through training, awareness and improving the design. As a result, improving IT services will support a successful PMS implementation.

Moreover, it is apparent from the feedback that the IT systems are not utilised and managed properly and effectively to support PMS implementation. The case studies organisations need to investigate and review IT strategy to ensure that there is a clear vision and a proper governance model for IT. Also, IT design need to be simple and user friendly with more training to improve IT utilisation.

D – PROCESSES CSFs

This section is looking into the analysis and findings of CSFs related to organisation processes. The flowing factors are discussed in details:-

- 10 Effective data management system
- 11 Motivation and linking performance to incentives
- 12 Change management
- 13 Role of effective communication

5.10 EFFECTIVE DATA MANAGEMENT ANALYSIS

Data or processed information are at the heart of today's organisation's business. It is increasingly becoming crucial to store and document data in ways that is easy for retrieval and convenience of interpretation. Effective data management, which includes easy input, store, interpret, and retrieval of data, will benefit any organisation as well as enhance prospects for the long-term preservation and re-use of the data (Borer et al., 2009). Furthermore, the nature of the existing data management infrastructure contributes critical to the successful deployment of a Performance Management System initiative (Gruman, 2004).

The first level of analysis in this study found weaknesses in the data management process in the surveyed organisations. These weaknesses have a negative impact on Performance Management System (PMS) implementation because the system depends heavily on data to report KPIs and organisation performance. As per the analysis, the gaps in data management are found in four major areas: the weak process, the poor quality data, the lack of proper tools and the poor utilisation of data. Chart 5.10 shows different issues and problems in the data management.

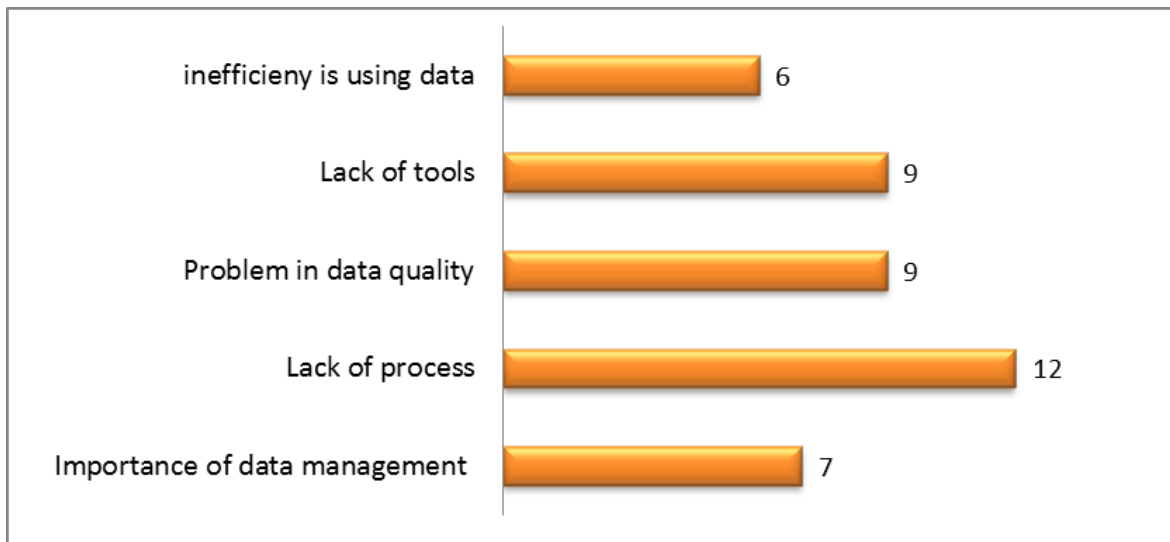


Chart 5.10: Problems in data management

The following sections present a detailed analysis of the current situation in light of the literature review.

5.10.1 Data Management Process

Respondents' of this study complain about the lack of formal data management process. Absence of a structured process can be witnessed in many aspects. For instance, the current system is generating poor reports, and organisations don't have any central database for information. Researchers highlighted the importance of the data management process and argued that a PMS enables informed decisions to be made and actions to be taken because it quantifies the efficiency and effectiveness of past actions through the acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data. (Neely, 1998). Thus, this would be the key area where organisations need to put serious attention on improvement. In addition, this study found the lack of integration between systems and data sources as another source of problems in the data management process. The current isolated database creates confusion and often becomes the reason for the inconsistency in results. Furthermore, the weak integration between systems and data sources increases difficulty in retrieving necessary data as they are stored in different places. Therefore, it is essential to establish an effective data management process to support successful PMS implementation.

5.10.2 Data Quality

Participants seemed to be very concerned regarding the quality of data as well. There is evidence that the data quality is poor and does not meet managers' expectations. Prior research also indicated that one of the critical factors for a successful PMS is the availability of high quality data (Kaplan and Norton, 2000). Data quality is an essential prerequisite for the decision making process. Therefore data must be accurate, complete, consistent, relevant, and reliable and received on time. Information quality could be one of the most important success factor categories for applying PM (Blasini and Leist, 2013). This study has exposed many possible reasons behind the poor quality of data. For instance, weak data entry techniques are used, and most of the data entries are still done manually. Also, a lack of staff skills could be another reason, as some employees lack data entry skills and make many mistakes. In addition, one of the root causes of the poor data quality is the lack of precise definition of the data requirement. This results in confusion and a different interpretation of the same data by users. As a result, poor data quality has negative impact on the PMS reports quality, and consequently this affects the validity of reports and the decision making being made based on those reports. Therefore, more effort is required to enhance the data quality through solving the root causes of this problem.

5.10.3 Availability of Necessary Information

To make the right decision in an effective fashion, it is essential that managers are getting complete information. Many decisions turn out to be wrong as a result of making them without complete information. For instance, some strategic decisions about organisation direction require accurate and complete data about the previous and current performance to understand the weaknesses and gaps. Also, accurate and complete data about the financial situation and shortage of the data will confuse decision makers. Researchers have explained the failures of PMSs could be as a result of the lack of necessary information (Dias-Sardinha and Reijnders, 2005). This study finds evidence confirming that the lack of some necessary information annoys decision makers and prevents them from making the right decisions on many occasions. However, further analysis revealed this shortage of information is attributed to many reasons, such as the fragmentation of data in different places, which is preventing users from getting what they are looking for in a timely manner. It should also be noted that

usages of variety sources of data creates a risk of inconsistency and inaccuracy. Previous studies have also emphasised the importance of single information sources where the data is current and readily available (Chrusciel and Field, 2003). This study finds also a problem in data availability for direct use in a simple and accurate format. The lack of “single point of truth”, which means one trusted source, was reported frequently, and there is no central system gathers all information in one database. Therefore, the solution could be using advanced tools to build a central database that provides the necessary data and information for all.

5.10.4 Data Tools and Infrastructure

Previous studies have highlighted the value of managers’ trust in performance information (de Waal, 2002). This statement means that it is essential that managers trust the sources of the data and depend on the quality and accuracy of information provided to make critical decision. Interestingly, no direct comment has been found in managers’ feedback about this point. However, managers will ignore the system and not use indicators’ results to monitor and manage their business unless they trust the information provided. Currently, there is an issue in the data quality as discussed in the previous section. Also, there is a weakness in the availability of all data. Therefore, although no direct feedback was found, it can be said that this can be solved if data quality is improved and the availability of all required data is managed.

There is no doubt that the data infrastructure is the backbone of data management. The infrastructure consists of information system tools, hardware and software, such as networks, computers, software applications, servers, data storage computers for saving data in backup desks, and other elements of IT. Without advanced infrastructure the data management cannot be effective. Yet there is evidence of an advanced (IT) infrastructure, and reliable and secure systems to process the data are in place. Researchers stated that the nature of the existing data management infrastructure contributes critically to the successful deployment of a Performance Management System initiative (Gruman, 2004). Therefore it is obvious that the existing infrastructure is capable of supporting data management without any problem.

As a result of the previous discussion, it can be concluded that the data management process consist of two parts. The first part is about the infrastructure, and hardware and software support this process. The second part is about the process itself, which means the management part. The previous discussion elaborated that there are advanced systems in place, that hardware and applications are of best quality, and that network and softwares are very advanced and have no complaints against them, and so this part is not of any concern.

However, it is clear that the problem is in the management of data. There is a problem in the utilisation of the existing systems to support data management, also, there is problem in the automation of data and integration of different system into one central system.

Furthermore, the data quality doesn't meet expectations and the required information is not complete in many cases. As a result, these gaps cause a weak use of data to support decision making. Therefore, it is important to benefit from the existing strengths of the advanced IT infrastructure and build a strong and effective data management process around it to support successful PMS implementation. This requires review of data automation, integration, analysis and reporting to make the best of the existing system.

5.11 MOTIVATION AND LINKING PERFORMANCE TO INCENTIVES

The majority of managers surveyed in this study believe in the critical influence that motivation has on the success of PMS. Twenty managers out of 26 who participated in this survey highlighted the importance of motivating employees. Nevertheless, participants stressed the importance of linking incentives to organisational performance as an important tool with which to motivate staff. They believe that proper will have a positive impact on the organisation's performance.

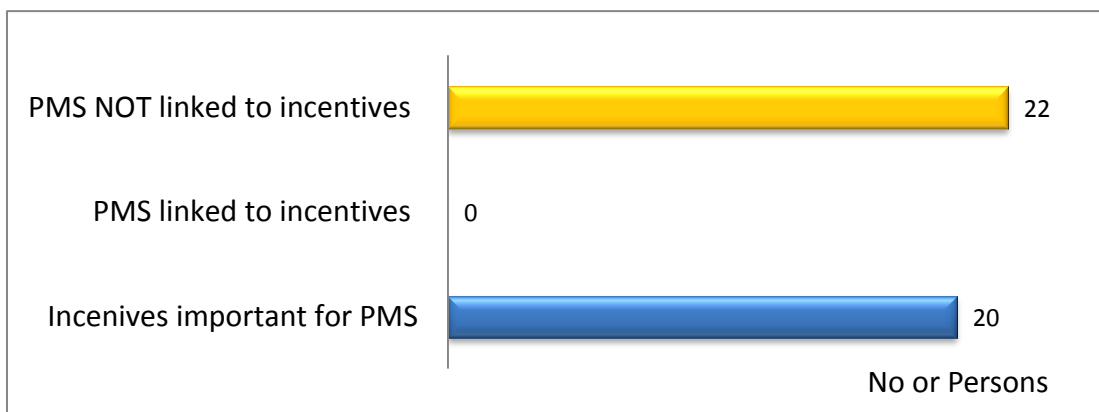


Chart 5.11: PMS & incentives

However, managers seem willing to link performance incentives to performance management. A study by Drake et al. (2007) mentioned a prominent model put forward by Spreitzer (1995), which suggests that two major components will positively affect employees' feelings of empowerment, namely performance feedback and performance-based reward systems. The data from this study indicates that managers have a good level of understanding on the value of motivation to PMS success. Also, participants confirmed the importance of a reward system to motivate staff and improve overall business performance. Another study concludes that motivating employees requires linking employee incentives to performance in order to create commitment (Blasini and Leist, 2013). The importance of linking performance to incentives was highlighted by 77 percent of participants as a critical factor for enhancing motivation and supporting business performance improvement. These findings are discussed in further detail, along with differing views, in the following sections of this paper.

5.11.1 Current Situation With Regard to Motivation and Linking Performance to Incentives

The study shows that managers have a good level of awareness about the value and positive impact of motivation on successful implementation of PMS and strongly endorse the critical role of linking incentives to performance.

However, a system of rewards and recognition does not appear to be in place: 65 percent of managers reported the lack of a reward system and 85 percent of managers confirmed that there is no link between incentives and performance. Morisawa and Kurosaki (2003) stated the necessity for incentives provided through linkages with compensation. Data from this study suggest that, without a clear link between a performance management system and incentives, staff are not motivated and have no interest in owning the system, because they do not see any personal benefits. Bourne et al. (2002) described such a situation as very risky. This study further revealed that there is no link between PMS results and incentives; rewards are not implemented effectively. Hence, an effective reward scheme linked to business performance results is strongly recommended in order to improve motivation.

5.11.2 The Need for a Reward and Recognition System

Senior managers strongly believe that the successful implementation of PMS demands a high level of motivation from the staff. Respondents in this study offered many suggestions and ideas on how to improve motivation, of which the most often repeated was that motivation can be improved by implementing a reward and recognition system as well as linking incentives to improved performance. Other suggestions were for non-monetary techniques such as showing appreciation to an employee for achievement, his or her promotion to a higher grade, a better job title, executive recognition and nomination for a leadership assignment.

5.12 CHANGE MANAGEMENT

Arabs have often been found likely to resist change and reject initiatives that are not of Arab origin (El Araby et al., 2006), which means that High Power Distance and High Uncertainty Avoidance can be found in their work environment (Hofstede et al., 2003). Hence, as these may be possible obstacles to successful implementation of PMS, change management techniques should be used to overcome them. People should be introduced to “*new ways of doing things, new ways of seeing themselves, their roles and interactions with others inside and outside the organization*” (Sinclair, 1994, pp. 32-40). As change in the organisation affects everyone from top management to the lowest grade, it is the responsibility of top management to understand all the impacts of change on the staff and try to solve all problems that may occur as a result of this change (Sinclair, 1994).

5.12.1 Current Situation

This study confirmed that a good level of understanding exists among participants about change management: 58 percent of managers are well aware of the concept of change management and the strategies used, as well as its potential support for successful implementation of PMS. Respondents gave a number of reasons for saying that change management is important for successful introduction and implementation of PMS. They said that people of more than thirty nationalities work in the organisation, all with different cultures, backgrounds and languages. Bringing all these together is a challenge for executive managers. Another challenge is a fear of change among staff; hence, effective change management is essential.

In this study, 42 percent of respondents believe that PMS does not need a great deal of change management; they do not expect any resistance to this new system and believe that staff are ready to implement it. This group is a balanced mixture from all levels.

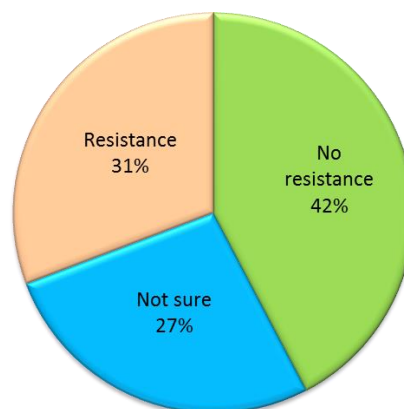


Chart 5.12: Change management

However, 31 percent of participants feel that there will be some resistance to implementing the new system. Most of the respondents in this group are from the business performance department. About 27 percent of respondents did not provide feedback or comments about change management.

5.12.2 No Resistance to Change

About 58 percent of respondents from all managerial levels believe that the organisation will accept PMS and the staff will implement it without raising any concerns. Some indicated that people have little fear of the introduction of a new system because they are accustomed to frequent changes. Others explained that employees are willing to accept PMS, as it will help them to work better. PMS is seen as a user-friendly system, and people are happy to use it. Moreover, some respondents mentioned that people will not resist the change as PMS does not threaten their job security, a top priority for people in this region where job security in the government sector is low. Hence, the level of expected resistance is low and non-threatening and the role of change management will not be challenged.

5.12.3 Resistance to Change

Although there is generally a good level of acceptance of PMS, some difficulties are likely to arise, requiring more effort to integrate PMS into the business. There are several reasons for resistance, for instance, some employees are comfortable with the existing system and are reluctant to go for something they do not know, or they have a fear generally of new systems and new technology. One of the obstacles to PMS implementation, as reported by managers, is the lack of readiness in the culture for accepting changes. Another obstacle is that employees fear that PMS may expose their real skills and competencies. Research by Bourne et al. (2002) identified the personal consequences from applying performance measurement as a common reason for failure. Moreover, as mentioned above, the causes of resistance to implementation and weak commitment could be poor awareness of PMS objectives as a result of a lack of engagement by staff in PMS development.

Visibility of PMS is crucial for staff to know the objectives of the change. Also, linkage of PMS to employees' daily work is necessary to ensure their full involvement. A previous study mentioned the acceptance of measurement throughout the organisation and the organization's readiness for change as CSFs for PMS implementation (Kennerley and Neely, 2002). Therefore, introducing PMS is a major task that requires effective change management because it affects people's lives and the way they perform their work. There is a real need to work hard to change the organisational culture and enhance people's understanding in order to reduce resistance to the minimum.

5.12.4 Change Management Tools

Many views and ideas were presented by senior managers about the best ways to manage change. Some emphasised the importance of having a strong agent who can sell the PMS concept to employees. One senior manager stated that the organisation could not sell the system to people because it is not linked to staff benefits. Others suggested that a combination of explaining to and educating the staff would be a great enabler. Additional feedback highlighted the critical role of the competencies of staff to support the change. Enhancing motivation through incentives and benefits was also mentioned as a technique for gaining acceptance for implementing PMS. Feedback also confirmed the importance of staff involvement in building the system so that they have a feeling of ownership towards it.

The majority of managers believe that there is no strong resistance to change but were also able to put forward various ways to remove resistance. Respondents emphasised the need for awareness, education, training, motivation and incentives for staff involved in PMS. Finding the causes of resistance and managing resistance are deemed important in the management process (Ariyachandra and Frolick, 2008).

5.13 ROLE OF EFFECTIVE COMMUNICATION

Communication is one of the most critical tools for implementing PMS (Chrusciel and Field, 2003). According to Neely et al. (2005), the factor of “communication” is one of the most often cited in PMS literature and noted that *“the effectiveness of performance management heavily depends on the communication strategy to facilitate the buy-in from the people in the organisation”* (1228). Respondents in this study stated that an effective communication strategy is required for the successful implementation of PMS, in order to ensure better awareness and understanding, reduce resistance to change, eliminate fear of a new system and create a strong culture favourable to PMS implementation, as well as building positive momentum for PMS (Malina and Selto, 2001).

5.13.1 Current Situation

By far the majority of managers surveyed indicated that they believe there is a strong link between effective communication and successful PMS implementation. The word “communication” was mentioned by every participant in this study.

Nevertheless, 15 percent of respondents are satisfied with the current level of communication. This small group consists of one senior manager and three middle managers. In contrast, 35 percent of respondents are completely dissatisfied with current communication; the majority of this group are senior managers. Fifty percent of all respondents believe that there is some communication process in place,

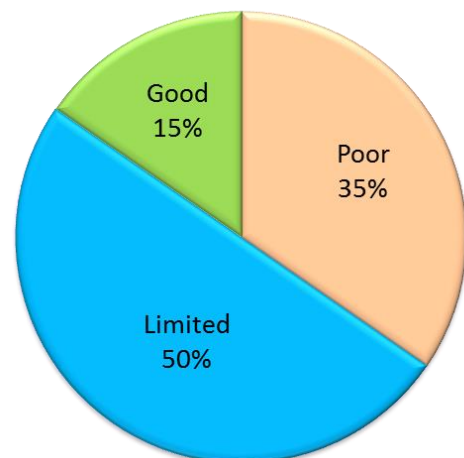


Chart 5.13: PMS communication level

but that it is not effective and needs improvement. Some respondents said that communication is limited to the upper level of the organisation; others said that the organisation has no clear communication strategy.

5.13.2 The Existence of an Effective Communication Strategy

Only four participants out of 26, representing 15 percent, reported that the prevailing communication process is effective; of these, three are in middle managerial positions and two work in the department responsible for managing communication in the organisation. However, it was unclear whether they were speaking about the organisation or just about the upper management level.

5.13.3 Limited or Poor Communication

Participants frequently spoke of limited or poor communication within the organisation; 85 percent of all participants expressed their dissatisfaction in this area. Among these, some, representing 35 percent of participants, reported poor communication, while others, representing 50 percent of participants, reported limited communication. Most of the comments received were about weaknesses in staff awareness about PMS objectives and benefits and limited explanations of how to use the system to support daily business requirements. Some respondents said that things happen at a high level but do not get cascaded down to the lower levels. Similarly, others mentioned that staff at lower levels are not involved at all in the review and implementation of PMS. One of the reasons put forward for poor communication was the design of the process; for instance, communication events are usually organised on an ad hoc basis, there is no proper planning of such events and the frequency is not high enough.

Data from this study also explain that performance reports produced by different business units and submitted to the performance department do not reach the staff, who therefore have no access to information and cannot know much about their department's performance. Understandably, one of the respondents said that if communication is not effective, then people will not understand the plans, and this leads to resistance to any new idea. Weakness in communication creates a problem for staff, who feel that they are isolated, as they do not know much about what the organisation is trying to do to improve performance.

5.13.4 Efforts towards Improvement

As already mentioned, there are weaknesses and gaps in communication in the organisation, especially with regard to PMS.

Respondents in this study provided suggestions and ideas for improving communication, for instance, the introduction of internal dedicated and capable resources to manage communication and the use of external experts to help build an effective communication system.

Other respondents described the lack of a communication strategy as one of the major obstacles in this area. This study finds that multiple communication vehicles are available to facilitate the implementation of PMS, such as workshops, presentations, training sessions, the intranet, brochures, newsletters, emails, posters, handbooks, letters from the Chairman, videos and Q & A sessions. Such communication methods may usefully be deployed to build understanding, commitment and enthusiasm among staff.

SUMMARY FOR PROCESSES CSFs

Communication is critical for implementing PMS. By far the majority of managers surveyed indicated that they believe there is a strong link between effective communication and successful PMS implementation and the organisation must establish a clear communication strategy and process to that end. However, a communication process is in place, but it is not effective for many reasons, such as lack of a clear strategy, poor implementation and a shortage of resources and skills. Hence, the organisation must establish a clear communication strategy and process that supports successful PMS implementation.

Furthermore, this study found weaknesses in the data management process in the organisations surveyed. These weaknesses have a negative impact on PMS implementation because the system depends heavily on data to report KPIs and organisation performance. The gaps in data management were found in four major areas: the weak process, poor quality data, the lack of proper tools and poor utilisation of the data.

The majority of managers surveyed believe in the critical importance of motivation in the success of PMS. Managers have a good level of awareness about the value and positive impact of motivation on successful implementation of PMS and strongly endorse the critical practice of linking incentives to performance. In addition, this study confirmed that change management is important for the successful introduction and implementation of PMS. Most respondents believe that the organisation will accept a PMS and staff will implement it without raising any concerns. Although there is

generally a good level of acceptance of PMS, some difficulties are likely to arise, requiring more effort to integrate the PMS into the business.

The next chapter provides the overall conclusion for this study, summarising the main findings and highlighting the major issues found, and offering some recommendations for improvement. The next chapter also tries to prioritise and discuss in detail the main CSFs, based on both the literature review and the field study findings.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

This thesis examines the Critical Success Factors (CSFs) that have an impact on the successful implementation of performance management systems (PMSs) in UAE government organisations. In the present chapter, we offer a conclusion and recommendations based on the data collection, study findings and data analysis contained in Chapters 4 and 5. The CSFs are discussed under four headings, namely PMS design and implementation, People, Technology and finally Processes, each representing an area of impact. A general discussion is provided on the theoretical/practical implications of PMSs for UAE government organisations. Following a section outlining the limitations of this research, there is a brief discussion on the directions for future research in this field and a summary of the main outcomes of the study.

Implementing PMSs in UAE government organisations is a challenging task and subject to a high risk of failure, for a number of reasons. This study was accordingly undertaken to provide UAE government organisations with an understanding of the CSFs that are central to the successful implementation of a PMS. A literature review was conducted to identify these CSFs, after which an empirical case study was undertaken to discover which are most critical to UAE government organisations. The literature review yielded 13 CSFs, which have been classified as shown in Table 6.1.

CSF	Group
1. Linking PMS to organisation strategy 2. System design and integration 3. Continuous monitoring and reporting	PMS design and implementation
4. Clear targets and business benefits 5. Top management commitment and support 6. Staff involvement in the system 7. Skilled resources to run the system 8. Staff training and awareness	People
9. IT infrastructure and support	Technology
10. Effective data management system 11. Motivation and linking performance to incentives 12. Change management 13. Communication	Processes

Table 6.1: CSFs for PMS, grouped by area of impact

6.1 CONCLUSION

The following section provides an individual assessment of each of the CSFs considered in the present study. The literature review and the findings from the field research are used to evaluate the degree of criticality of each CSF. First, using the findings in the literature (Chapter 2, Sections 2.6 and 2.7), the level of importance and impact of each CSF on PMS success were assessed against the scale shown below in the range from very high to very weak. Second, using the data collected, an assessment was made of the current situation of each CSF in the case study organisations. ‘Very good’ means that the CSF is well established and does not represent any risk to the successful implementation of a PMS in the organisations studied. ‘Very weak’ means the opposite. The following scale was used as a measure.

Importance of CSF in literature review	Very high	High	Average	Weak	Very weak
Current situation of CSF in the field	Very good	Good	Average	Weak	Very weak

As shown in Table 6.1, CSFs were grouped in four categories, namely PMS design and implementation, People, Technology and Processes. The following section discusses the assessment of each CSF in more detail.

6.1.1 PMS DESIGN AND IMPLEMENTATION CSFs

CSF1: Linking a PMS to the organisation’s strategy

This study has found that managers strongly believe in the importance of linking a performance management system (PMS) to the organisation’s strategy, which, according to Norton and Kaplan (2002), is the most important factor in achieving successful implementation of such a system. The linking of a PMS to organisational strategy is one of the most cited CSFs in the literature (Section 2.6, Section 2.7, CSF1 and Table 2.2). Managers see PMS as a vital tool for implementing an organisational strategy and providing alignment (Gimbert et al., 2010). However, the feedback in this study indicates weak alignment and poor integration between organisational strategy and PMS (Section 5.1).

As a result, the first CSF can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Very high	Very weak

This result indicates a very risky situation, which can only be remedied by giving top priority to this CSF in any implementation project for PMS.

CSF2: PMS design and integration

The data gathered in this study suggest that PMS design is over-complicated and not user-friendly. The literature confirms this weakness. For instance, Richardson (2004) stated that failure occurs if a PMS is over-sophisticated, if it lacks the flexibility to adopt new ideas and if an organisation is not ready for it. Evidence from the present study suggests that there is a problem in the design of KPIs. The complexity of PMS design causes confusion and discomfort among managers about use of the system, which could be attributed to using many KPIs without proper awareness of their relative importance. The lack of focus and the use of too many measures in the design increase the probability of PMS failure (Kennerley and Neely, 2002). Another problem in the design is the lack of proper cascading of PMS to all levels in the organisation, which tends to be limited to upper levels. Kaplan and Norton (2000) alerted business leaders to such a situation.

In addition, this study looked at how organisations have defined and designed the existing PMS set of indicators known as the KPIs matrix. The existing metrics design and definitions were found to be unsatisfactory or unclear and did not meet the managers' expectations. A previous study observed that one of the causes of PMS failure was poor definition of the metrics (Schneiderman, 1999). Other studies found that it is vital that managers agree on system changes to develop the right KPIs to serve the purpose (de Waal, 2002). Moreover, the results of this study suggest that system design and implementation are not always done for all levels in the organisation. A PMS is used partially on some levels and for limited purposes, focusing on organisation-level KPIs and the reporting of high-level indicators. Therefore, small units and individuals do not participate in the system or use it. PMS needs to be implemented throughout the organisation (Richardson, 2004).

In the literature (Section 2.6, Section 2.7, CSF2 and Table 2.2), PMS design is the most frequently discussed CSF, suggesting that it is very important. From the data analysis findings (Section 5.2) and the literature review, this CSF can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Very high	Weak

Clearly, PMS design and integration within the organisations studied is a problem that merits special consideration to avoid the risk of failure in implementation of the PMS.

CSF3: PMS reporting and continuous monitoring

PMS reporting and continuous monitoring are essential for the success of PMS. The feedback received in this study shows that current PMS reporting and continuous monitoring are effective and meet expectations, and that there is firm ownership of the monitoring and reporting process. To improve this process, all organisations have established new departments responsible for measuring business performance, in order to achieve implementation of a PMS and ensure commitment, effective reporting and continuous monitoring. In this area there is an important role for information technology. According to our interviews, these departments were performing well. However, the study found evidence of weak use of the outcomes of monitoring and reporting to support business improvement and in analysing the reports and taking actions accordingly. The literature confirms that the causes of PMS failure include the lack of a proactive review process and inadequate data analysis and use (Kennerley and Neely, 2002) and limited involvement in the process on the part of managers.

Based on the literature review (Section 2.6, Section 2.7, CSF3 and Table 2.2) and data analysis (Section 5.3), it can be concluded that this factor is well established but inefficiently used by senior managers. Hence, this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Average	Good

From assessment of PMS reporting and continuous monitoring in the literature and in the present study, it can be concluded that it is sound and does not need to be the focus of particular attention. However, it must not be ignored, and there is room for improvement in the way in which the results of reporting and monitoring are used.

6.1.2 PEOPLE CSFs

CSF4: Clear targets and business benefits

The present study found that managers and senior staff believe in PMS and are convinced of its benefits, although staff at lower levels do not share these views, nor do they understand the targets (Section 5.4). A previous study revealed that one of the main reasons why PMS was not implemented successfully was the apparent lack of benefit from performance measurement (Bourne et al., 2002). This indicates a problem in the understanding of PMS values and objectives, which in turn creates a risk of PMS failure. The literature stresses the importance of this CSF (Section 2.6, Section 2.7, CSF4 and Table 2.2); for instance Locke and Latham (2002) indicated that setting clear targets for business performance is a key management tool. In summary, it can be said that there is poor understanding of PMS values and objectives among staff. This may be attributed to many factors, such as the weak link to individual targets and KPIs, poor awareness and training, weak design and poor motivation. Hence, it seems that the gap in this area is a result of weaknesses in other factors.

Thus, this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Weak

The evidence shows that it is important for people to understand the clear targets and business benefits of using a PMS. Unfortunately, the feedback from the present study reveals that staff are not aware of the benefits of a PMS. Hence, UAE government organisations must pay attention to this aspect.

CSF5: Top management commitment and support

Commitment on the part of top management and the perceived benefits of a PMS are the two main factors that drive implementation (Bourne et al., 2002). However, this study has found that there is little commitment, poor support and limited use of a PMS among senior managers. An earlier study stated that top management must make the PMS a priority and fully commit to it for a project to be successful (Chrusciel and Field, 2003; Richardson, 2004). Moreover, senior leaders have an important role in

communicating their mission to all levels during all stages of implementation.

Moreover, top management tend to sign the project off and show great interest and enthusiasm at the beginning but, after a while, they delegate the responsibility and management of the PMS to lower level managers and cease to treat it as a high priority or to give time to follow-up. Active and visible support from the management, often in the form of a champion for the application, is essential in ensuring successful PMS implementation (Chrusciel and Field, 2003); in practice, this rarely happens. Data analysis reveals that visibility of the PMS values and objectives is not very clear among senior management, nor is the overall implementation strategy. According to Radnor and McGuire (2004), one of the challenges in adopting a PMS is positioning the system effectively within the department's overall performance improvement agenda.

Based on the literature review (Section 2.6, Section 2.7, CSF5 and Table 2.2) and data analysis (Section 5.5), it can be concluded that this factor is one of the most important CSFs for PMS implementation. There is weak commitment on the part of top management, who need to serve as role models and give more support to the system. Hence, this factor is assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Very high	Weak

This is an alarming situation, as poor commitment and limited support from top management threaten the successful implementation of a PMS. The literature strongly supports this argument.

CSF6: Staff involvement in PMS development and implementation

Similarly, our research found that staff involvement in PMS development and implementation is limited, especially at the lower levels. One of the reasons for the failure of a PMS is poor staff involvement (Kaplan, 2000), which in turn is the result of weak awareness of the project, as a result of being excluded from information and decision-making. Hence, there is weak ownership of a PMS among the majority of staff, for whom it is not directly relevant to their roles and who show little interest in using it. Lower level staff are also not involved in the design and implementation of PMS.

Based on the literature review (Section 2.6, Section 2.7, CSF6 and Table 2.2) and data analysis (Section 5.6), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Very high	Very weak

This lack of staff involvement in implementation of a PMS requires more effort on the part of UAE government organisations to involve staff in it, failing which, there is a high risk of failure.

CSF7: Skilled resources to run the system

Kennerley et al. (2002) stated that the lack of the necessary skills and human resources has a negative impact on the success of PMS implementation. Feedback from this study revealed a shortage of staff with such skills and insufficient resources to achieve success (Ariyachandra and Frolick, 2008). However, there was no agreement among managers about the best way to manage this shortage. Some suggested recruiting more staff, while others thought that existing staff should be trained and yet others recommended using external consultants to cover the shortage.

Based on the literature review (Section 2.6, Section 2.7, CSF7 and Table 2.2) and data analysis findings (Section 5.7), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Average

It is obvious from previous assessments that there is no great risk in this area, although the literature stresses the need for skilled staff to support PMS implementation. However, the situation is under control. More skilled resources improve the chances of successful implementation.

CSF8: Staff training and awareness

This study found that the majority of staff did not receive sufficient training about PMS, either in quality or quantity, being sometimes limited to system users and senior

managers. This lack of sufficient training at all levels within the organisation makes PMS implementation vulnerable (Kaplan and Norton, 1992). Our study revealed that there is a weak link between the training provided and the desired outcome. The training was not well designed, had poor scope and lacked thoroughness, reflecting an absence of an overall training strategy in the organisation. The absence of a clear vision and strategy for training will almost certainly cause the system to fail (Morisawa and Kurosaki, 2003).

Based on the literature review (Section 2.6, Section 2.7, CSF8 and Table 2.2) and data analysis findings (Section 5.8), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Weak

The literature found that the training of staff on using a PMS is highly important, contributing greatly to the success of the whole system. The feedback in this study showed a poor level of training in the use of a PMS. This is a risky situation, increasing the probability of failure. Hence, UAE organisations need to invest in proper training to support PMS implementation.

6.1.3 TECHNOLOGY CSF

CSF9: IT infrastructure and support

UAE government organisations have invested heavily in the installation of information technology (IT) systems. Nevertheless, this study discovered a paradox: advanced IT infrastructures with the most recent and sophisticated IT applications are visible in all organisations, but most of the information is still based on simple spreadsheets that perform key business activities such as planning, budgeting and forecasting. Only rarely is proper and full use of those systems made to support decision-making, which necessarily impedes the successful implementation of PMS.

Based on the literature review (Section 2.6, Section 2.7, CSF9 and Table 2.2) and data analysis findings (Section 5.9), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Average

The literature acknowledges the role of IT in PMS successful implementation. The current situation is average, posing no great risk to PMS implementation. However, improving the IT infrastructure and utilisation will enhance the chances of successful implementation of a PMS.

6.1.4 PROCESSES CSFs

CSF10: Effective data management system

The existing infrastructure that supports data management is of the best quality, according to feedback received in this study, but the lack of a formal data management process is a critical weakness. The problem arises from poor utilisation of the existing systems, limited automation of data and the absence of integration of different systems into one central system. Furthermore, feedback confirmed that the data quality does not meet expectations, which is likely to impact negatively on applying a PMS (Blasini and Leist, 2013). Moreover, there is a problem in data availability for direct use in a simple

and accurate format. Previous studies have emphasised the importance of single information sources where the data is current and readily available (Chrusciel and Field, 2003). Based on the literature review (Section 2.7, CSF10 and Table 2.2) and data analysis findings (Section 5.10), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Weak

The evidence from field results indicates weakness in managing PMS data, which creates the conditions for failure. The literature highlighted the high importance and high impact of data management on the success of a PMS. Therefore, UAE organisations must commit to improving the data management process.

CSF11: Motivation and linking performance to incentives

According to the literature review (Section 2.6, Section 2.7, CSF11 and Table 2.2), motivation and incentives in regard to PMS implementation are crucial. Managers have a good level of awareness about the value of motivation and strongly support linking incentives to performance as a motivational tool. Nevertheless, this study found that a system of rewards and recognition does not appear to be in place and there is no clear link between a PMS and incentives. Consequently, staff have no interest in owning the system because they do not see any personal benefits.

Based on the literature review and data analysis findings (Section 5.11), this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
Very high	Very weak

The feedback in the present study indicated a very poor situation. There is a complete failure to link incentives to performance. Hence, this factor needs to be given priority in implementing a PMS successfully.

CSF12: Change management

The present study investigated change management to explore its impact on PMS implementation and found a good level of relevant understanding among participants (Section 5.12). Organisations generally accept a PMS and the staff will implement it without raising any concerns. Indeed, employees are willing to accept PMS, as they believe it will help them to work better. Their involvement in building the system is acknowledged to be important so as to give them a feeling of ownership. Managers also believe that PMS does not demand a great deal of change management.

Based on the literature review (Section 2.6, Section 2.7, CSF12 and Table 2.2) and data analysis, this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Average

Although the literature considers this CSF to be highly important, the field study indicated that there is no risk from resistance to implementing a PMS.

CSF13: The role of effective communication

Managers surveyed in this study reported that effective communication is an important factor in successful PMS implementation (Section 5.13). However, communication is often restricted to the upper level of the organisation, with the result that staff at lower levels are not involved at all in implementation and review. Another finding was that performance reports produced by different business units and submitted to the performance department do not reach the staff, who therefore have no access to information about their department's performance. The lack of an overall communication strategy is one of the major obstacles in this area to the successful implementation of a PMS.

Based on the literature review (Section 2.6, Section 2.7, CSF13 and Table 2.2) and data analysis, this factor can be assessed as follows:

Importance of CSF in literature review	Current situation of CSF in the field
High	Average

Communication is important in the organisation in general and for PMS implementation in particular. However, the data received from the field revealed a degree of communication that was only average but not sufficiently poor to pose a risk to successful implementation of a PMS.

Table 6.2 summarises the assessment of CSFs according to both the literature and the field data.

No.	CSF	Importance in LR	Current situation in the field
1	Linking PMS to organisational strategy	Very high	Very weak
2	System design and integration	Very high	weak
3	Continuous monitoring and reporting	Average	Good
4	Clear targets and business benefits	High	Weak
5	Top management commitment and support	Very high	Weak
6	Staff involvement in the system	Very high	Very weak
7	Skilled resources to run the system	High	Average
8	Staff training and awareness	High	Weak
9	IT infrastructure and support	High	Average
10	Effective data management system	High	Weak
11	Motivation and linking performance to incentives	Very high	Very weak
12	Change management	High	Average
13	Communication	High	Average

Table 6.2: Summary of assessment of CSFs

As the assessment summary shows, three CSFs, 1, 6 and 11, were of greatest significance in relation to the success of a PMS. However, the data collected from the case study organisations showed a very weak situation for these CSFs, highlighting the need to give them priority in the implementation of a PMS in UAE organisations. Of the three, CSF11 (Motivation and linking performance to incentives) was found to be the most critical. The data from the field revealed that CSF11 is completely missing from the case study organisations. CSF2 (Linking PMS to organisational strategy) was ranked second most critical in the literature, many scholars considering it the most important factor for PMS implementation. The data collected from the field is alarming: 61% of managers reported that there is no proper link between PMS and organisational strategy.

CSF6 (Staff involvement in the system) was ranked the third most critical in the literature for PMS implementation. In this study, 76% of managers reported that staff involvement in PMS design and implementation was either poor or limited.

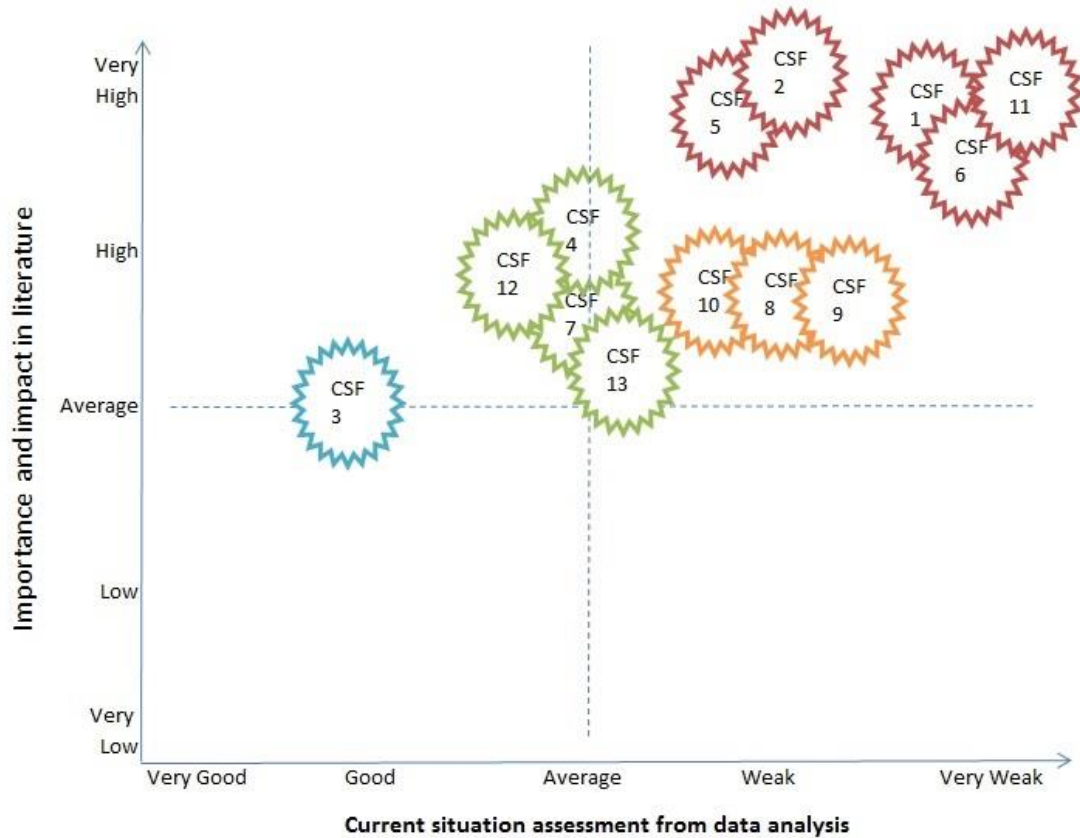


Figure 6.1: The distribution of the CSFs assessed. (Source: Table 6.2)

Two more CSFs evaluated as highly critical for PMS implementation are CSF2 (System design and integration) and CSF3 (Top management commitment and support). CSF2 was ranked in the literature as the fourth most critical and was discussed more than any other. However, in the surveyed organisations there is a PMS design in place, but 65% of respondents think that the design requires improvement. The fifth most critical factor is CSF3 (Top management commitment and support), which also received much attention in the literature. However, 58% of respondents reported weak commitment and weak support from top management for PMS implementation.

These rankings represent the qualitative data in this study. A quantitative survey would achieve more objective results. Figure 6.1 illustrates the assessment of CSFs and Table 6.3 provides a summary of the findings and recommendations of this study.

Category	Critical Success Factors	Findings	Recommendations
PMS design and implementation	CSF1: Linking PMS to organisational strategy CSF2: System design and integration CSF3: Continuous monitoring and reporting	High priority, but very weak alignment Poor design, complicated and too many KPIs Well established, but inefficient use by senior managers	Strong alignment between PMS and strategy Right selection of KPIs, cascading to all levels Improve analytical tools for better results, encourage senior managers to use PMS more
People	CSF4: Clear targets and business benefits CSF5: Top management commitment CSF6: Staff involvement in the system CSF7: Skilled resources run the system CSF8: Staff training and awareness	Poor understanding of PMS values & objectives Low top management commitment Weak awareness of staff There are skilled resources, but not enough Limited to upper levels	Link to individual targets and KPIs Serve as role model and give more support to PMS Focus on involving lower level staff in PMS Increase the number of skilled staff Cascade training to lower levels
Technology	CSF9: IT infrastructure and support	Advanced IT tools and applications, but limited automation of data	Improve the utilisation of IT tools, more training and enhanced automation of data collection
Processes	CSF10: Effective data management system CSF11: Motivation and linking performance to incentives CSF12: Change management CSF13: Communication	Lack of process, weak utilisation & automation One of the most important CSFs, doesn't exist, no link to performance Good level of understanding of change Not effective, focus on upper staff	Establish process, enhance data analysis tools Very critical to establish recognition and reward system, linking incentive to performance Involve all staff in PMS to reduce resistance Develop communication strategy, more communication to lower level staff

Table 6.3: Summary of findings and recommendations

6.2 RECOMMENDATIONS

The following section presents recommendations, generated from the study, for improving the PMS implementation process. A summary of findings and recommendations is in Table 6.2. Like the conclusions above, these recommendations about the CSFs that influence the successful implementation of PMS within UAE government organisations are categorized by area of impact: PMS design and implementation CSFs, people CSFs, technology CSFs and processes CSFs.

6.2.1 PMS Design and Implementation CSFs

- The reciprocal relationship between PMSs and organisational strategy is underlined in the literature, a principle confirmed by the findings of the present empirical study. Therefore, UAE government organisations need to use PMS as a strategic tool to support strategy execution. Additionally, PMS must be used effectively in monitoring and measuring the outcome of strategy. This can be achieved by ensuring that all KPIs are derived from organisational strategy. PMS should support the definition, development and evolution of business strategy in order to support continuous improvement (Bititci, 1997; Bourne et al., 2000; Tonchia, 2001). [CSF1]
- According to feedback in this study, PMS design suffers from many weaknesses, such as complexity and the use of a large number of indicators. Thus, simplifying the PMS design and making it more user friendly is an essential condition for successful implementation. To this end, selection of the right KPIs is fundamental, as is limiting their number to those that are crucial to the important functions in the business. Each level of organisation should therefore have six to nine KPIs. A previous study found that a large number of measures diluted the overall impact of PMS (Bierbusse and Siesfeld, 1997). KPIs must be clear and simple, so that everyone can understand them. Moreover, PMS design has to be cascaded to the level of individuals. [CSF2]
- Managers do not give enough time to the monitoring and analysis of results of PMS. Business results improve if managers analyse reports and take actions based on

the outcomes. UAE government organisations can maximise the benefits of PMS if they use advanced analytical tools to enhance monitoring and reporting. Establishing a proactive review process for PMS results and creating a follow-up system for actions is crucial, so as to ensure that the PMS supports continuous improvement. [CSF3]

6.2.2 PEOPLE CSFs

- One of the gaps reported in this study is the lack of visibility of PMS benefits to staff, especially at lower levels, which is reflected in a poor interest in PMS among the staff. Thus, effective communication and awareness sessions are recommended to help staff see the benefits of PMS and understand its value to them and to the business. Furthermore, it is vital that targets are reviewed to make them simple and clear and that they are communicated to all levels of staff, as stressed by Locke and Latham (2002). In addition, it is recommended that personal targets be set as part of PMS design, linking attainment of personal targets to personal benefits. [CSF4]

- This study has found poor involvement of senior managers. To overcome this weakness, it is essential to involve senior managers in the early stages of the development of a PMS to ensure their buy-in and their understanding from the beginning, and to continue to require their participation in effectively developing and implementing the PMS. Also, managers should engage in setting targets and objectives, communicating their mission to all levels and monitoring and controlling progress. Moreover, top management are responsible for ensuring the appropriate resources are allocated to the system. It is very important for successful PMS implementation to have a senior-level champion who can serve as a role model and lead this project to success. Experience has repeatedly shown that the single most important condition for success is the ownership and active involvement of the executive team (Kaplan and Norton, 2001). Moreover, it is essential that senior managers use the PMS more frequently, include it on the agenda of all management meetings, devote sufficient time to the system and make results a fundamental part of regular business reports. [CSF5]

- Poor involvement among staff at lower levels affects PMS implementation. It is recommended that staff participate in all the stages of the PMS life cycle, from design to implementation and then to monitoring. Their involvement could be tailored to the needs of the business and staff skills. Previous studies described user involvement as the reality in which the ownership of the system is in the hands of the end-users (Chrusciel and Field, 2003). Similarly, training needs to be extended to all staff at all levels to enhance participation. [CSF6]
- One of the weaknesses reported was a lack of sufficient skilled resources and competencies. Thus, the organisation needs to have enough key staff in every department capable of supporting PMS implementation. Intensive training needs accordingly to be provided for existing staff to build their skills and additional staff with the relevant skills may have to be recruited. Another solution is to use the services of professional external consultants to deliver PMS to the organisation. Consultants can not only add value in the design and development stage but also provide training to internal staff. [CSF7]
- The importance of staff awareness about PMS and training in its implementation has been highlighted. Morisawa and Kurosaki (2003) observed that an adequate preparatory period is needed before introducing PMS to an organisation. Thus, UAE organisations need to develop a training plan and an awareness campaign, focusing on building skills and competencies to meet the requirements of the business. Current training seems to be focused only on certain levels, whereas it should be comprehensive and inclusive for all levels of the organisation. The training must be fit for purpose, having the right content and being delivered to the right people at the right time. Good quality training will provide large returns for the employer in the form of increased productivity, knowledge, loyalty and contributions from staff (Phillips, 2003). [CSF8]

6.2.3 TECHNOLOGY CSF

- This study identified some weaknesses in IT strategy, which should therefore be reviewed and updated. Organisations need to improve the utilisation of existing advanced IT applications by using different applications more efficiently. They also need to identify and fill any gaps in their existing processes. Another issue in IT is weak integration between different systems. The design of existing applications was found not to be user friendly. Hence, it is essential that applications and processes be designed to be user friendly, which will encourage users to be more productive. [CSF9]

6.2.4 PROCESSES CSFs

- It is important to take advantage of the existing strengths of advanced IT infrastructures to build a strong and effective data management process. UAE organisations need, first, to review and improve data quality. They must also improve data automation and enhance data integration and advanced data analysis and reporting to make the best of the existing system. Advanced IT tools can also be deployed to build a central database that provides the necessary data and information for all. The literature confirms that a PMS enables informed decisions to be made and actions to be taken because it quantifies the efficiency and effectiveness of past actions through the acquisition, collation, sorting, analysis, interpretation and dissemination of appropriate data (Neely, 1998). [CSF10]
- Lack of motivation and linking incentives to performance were exposed in this study as weaknesses and gaps, which have a negative impact on staff commitment. Therefore, to support PMS implementation it is essential for UAE organisations to implement a reward and recognition system, as well as linking incentives to improved performance. In addition to financial rewards and incentives, organisations are encouraged to show appreciation to employees by giving promotions, better job titles, executive recognition and nominations for leadership assignments. [CSF11]

- Change management and resistance to the introduction of a new system were not found to be high-risk issues. However, it is the responsibility of top management to understand all the impacts of change on the staff and try to avoid or resolve problems that may arise (Sinclair, 1994). Minimising the risk of resistance to change can be done by education, training and incentives to improve staff motivation and involvement. Visibility of the PMS is crucial for staff to know the objectives of the change, and linkage of the system to employees' daily work is necessary to ensure their full involvement. [CSF12]

- The study found that communication in the organisations surveyed was not effective. According to Neely et al. (2005), the effectiveness of a PMS heavily depends on a communication strategy that facilitates buy-in from all the people in the organisation by building understanding, commitment and enthusiasm. UAE organisations have many opportunities to improve communication, such as introducing internal dedicated and capable resources to manage communication and using external experts to help build an effective communication strategy. The use is recommended of multiple communication vehicles, such as workshops, presentations, training sessions, the intranet, brochures, newsletters, emails, posters, handbooks, letters from the Chairman, videos and Q & A sessions. [CSF13]

6.3 THEORETICAL CONTRIBUTION OF THIS STUDY

Based on the literature review, this study identified 13 CSFs that may impact PMS implementation within UAE government organisations. These CSFs were classified into four groups, with the initial grouping model shown in Table 6.4. Next, an empirical case study was undertaken to further investigate the CSFs and determine which are the most critical factors in PMS implementation within UAE government organisations. Critical thinking and inductive reasoning have led researchers to classify the CSFs into four groups: PMS design and implementation, People, Technology and Process.

CSF	Group
Linking PMS to organisation strategy System design and integration Continuous monitoring and reporting	PMS design and implementation
Clear targets and business benefits Top management commitment and support Staff involvement in the system Skilled resources to run the system Staff training and awareness	People
IT infrastructure and support	Technology
Effective data management system Motivation and linking performance to incentives Change management Communication	Processes

Table 6.4: List of CSFs generated from the literature for successful PMS implementation

The collection and analysis of empirical data in this study led to the identification of the five most important CSFs affecting the successful implementation of PMS.

The outcome of the field research is a simple model for every CSF that illustrates its details and explains how it works. In addition, this study contributes to the current limited understanding of the factors affecting PMS implementation. The results of empirical data investigation and the analysis of literature led the researcher to create a

list of the top five CSFs that have the most influence on the successful implementation of PMS within UAE government organisations, as follows:

1. Motivation and linking performance to incentives
2. Linking PMS to organisational strategy
3. Staff involvement in the system
4. System design and integration
5. Top management commitment and support

Table 6.5 shows the proposed grouping model, which represents the outcome of this study.

CSF	Group
Linking PMS to organisation strategy System design and integration	PMS design and implementation
Top management commitment and support Staff involvement in the system	People
Motivation and linking performance to incentives	Processes

Table 6.5: Proposed grouping model for successful PMS implementation of CSFs

To develop a framework for successful PMS implementation, various models of PMS were reviewed to determine which CSFs potentially affect PMS implementation success. Empirical findings of this study, together with the literature review, were used to develop a framework containing appropriate CSFs and relationships among the framework's factors. However, based on the literature review, researcher couldn't find any previous model for PMS successful implementation CSFs. Instead, some models found in the area of IT projects implementation CSFs.

PMS success and IT project success are closely related. IT applications are usually both the enablers and facilitators of changes identified during PMS projects (Hung, 2006; Trkman, 2007). Successful implementation of a BI system is not a conventional application based on an IT project; rather, it shares similar characteristics with other

infrastructural projects, such as the implementation of an enterprise resourcing planning system (Adamala and Cidrin, 2011). Therefore, there are many common characteristics between BI and PMS, such as their use in the context of change projects and their interaction with various organisational elements, such as processes, technology, people and infrastructure. Also, both systems depend heavily on data management and data quality to provide the bases for decision-making. Moreover, both types of system require organisation-wide change management and cooperation among various departments.

In summary, there are clear similarities between BI and PMS implementation; for instance, both systems are change projects aimed at improving business performance and supporting decision-making. Moreover, both are dependent on data and other information to produce results. Additionally, neither are simple activities entailing the mere purchase of a combination of software and hardware; rather, they are complex undertakings requiring appropriate infrastructure and resources over a lengthy period of time (Bourne et al., 2002, Radnor and Lovell, 2003, Yeoh and Koronios, 2010).

Application of frameworks for managing organisation-wide changes is not a new phenomenon. Several models of the critical success factors (CSFs) needed for successful implementation of BI systems within the organisation have been proposed in the literature (Delone and McLean, 1992; 2003; Hwang and Xu, 2008; Wixom and Watson, 2001 and Yeoh and Koronios, 2010). This study attempts to develop a framework based on critical success factors that will enable successful implementation of PMS in UAE government organisations. In doing so, this study examines existing frameworks available for business intelligence and their suitability for use in PMS implementation. This study intends to modify BI-based frameworks to develop new frameworks for CSF-based PMS. The proposed theoretical framework based on CSF will assist organisations in implementing the PMS in a more systematic manner and with less risk of failure during execution. The proposed framework will identify and highlight the CSFs that exert the greatest influence over the successful implementation of a PMS. As there is a lack in the literature of PMS success models, this study investigates possible models for the success of IT projects, especially BI projects. This study finds that BI implementation is useful in this context in two ways. First, it studied the impact on organisations of various factors resulting from changes related to BI

implementation. Second, the study resulted in the development of a framework based on CSFs for BI implementation. An analysis of several successful frameworks for BI implementation was used as a basis for the development of a framework for managing organisation-wide change resulting from PMS implementation in UAE. The following section will briefly examine the characteristics of each model.

Below is a detailed description of Yeoh and Koronios's framework:

As illustrated earlier in Figure 2.10, the proposed CSFs framework for successful BI implementation outlines the contribution of different CSFs on the success of BI implementation. In addition to the contribution of CSFs, this framework considers the impact of external dimensions, as per the recommendations of Ariyachandra and Watson (2006), who describe two key dimensions as being process performance and infrastructure performance. Process performance refers to the monitoring of BI implementation progress. Process performance can be assessed in terms of time schedules and budgetary considerations, according to Ariyachandra and Watson (2006). Infrastructure performance refers to measuring the quality of the system and the standard of output, such as information quality, system quality and system use (Delone and McLean, 1992)

According to Yeoh and Koronios (2010), this framework supports the efforts of the organisation and individual users to assess the benefits of BI system implementation. Furthermore, the framework uses a closed feedback cycle to provide continuous assessment of the results. Based on this assessment, the system will be modified, optimised and improved accordingly. This closed loop supports the continuous improvement principle. It is expected that this framework will manage the CSFs effectively to support the successful implementation of a BI system.

Although the framework proposed by Yeoh and Koronios (2010) has specific strengths and advantages, such as flexibility in reviewing the results, using the closed feedback cycle and its representation of CSFs as the main input for success of implementation, it also has some weaknesses and shortcomings. According to Adamala and Cidrin (2011), the framework proposes no specific measurement criteria for the different CSFs. The lack of clear criteria could be attributed to the general definition of many of the CSFs, so it is difficult to use consistent measures. Therefore, the framework's implementation would be impractical and its use might depend on the subjective opinions of the users.

The second drawback of the framework has to do with specific infrastructure performance factors, such as the fact that system quality and information quality are repeated in two places. They belong to the technology category (infrastructure and data factors) and should not be repeated elsewhere. Further criticisms of the framework proposed by Yeoh and Koronios (2010) are based on the complexity of the model and unclear relations between various variables, making it too difficult for practicing managers to use; the contents are unclear and the phrasing is very general. Also, the relations are not simple, so it is difficult to thoroughly understand the sequence of relations. Another drawback to the BI CSF model is the fact that it is strictly budget-oriented; where the budget is a prerequisite, limitations are imposed on the implementation requirements, forcing the user to adjust the model to the existing budget. In UAE, the common practice is to utilize the action-oriented budget, where the government's aim is to support improvement initiatives and boost innovation by approving the required budget in advance.

6.3.1 CSF framework for successful PMS implementation in UAE government organisations

To develop a framework for successful PMS implementation, various models of PMS were reviewed to determine which CSFs potentially affect PMS implementation success. Empirical findings of this study, together with the literature review, were used to develop a framework containing appropriate CSFs and relationships among the framework's factors. However, based on the above discussion, the framework of Yeoh and Koronios (2010) was found to be the most appropriate framework for modification and extending to develop new frameworks for PMS implementation of CSFs. The proposed model aims to avoid the weaknesses highlighted in the previous discussion and will build on the strengths found in this framework. As illustrated in Figure 6.1, the modified proposed model produced by this study has improved characteristics that offer an improvement over the previous model. First, it is customised to this study's objectives and serves as a framework for CSFs for the successful implementation of PMSs. Second, the design was improved so that managers can use its simple and practical design without confusion. Third, the model is flexible and dynamic, and can be reviewed and updated from time to time. All that is needed is to use the closed loop

feedback cycle, as in Yeoh's framework. A fourth strength of the proposed model is that it has few CSFs; this encourages a greater degree of focus and allows the organisation to prioritise its efforts and budget with regards to important factors. A fifth strength of the model is that CSFs are clearly defined and can be easily measured. In fact, a separate model for every CSF was developed to assist in understanding inputs; consequently, key performance indicators (KPIs) can be designed and results measured. Finally, all complex relations and high-level groups were removed to support better implementation. Hence, the proposed framework for successful PMS implementation of CSFs in UAE government organisations is less complicated and represents this empirical study's findings.

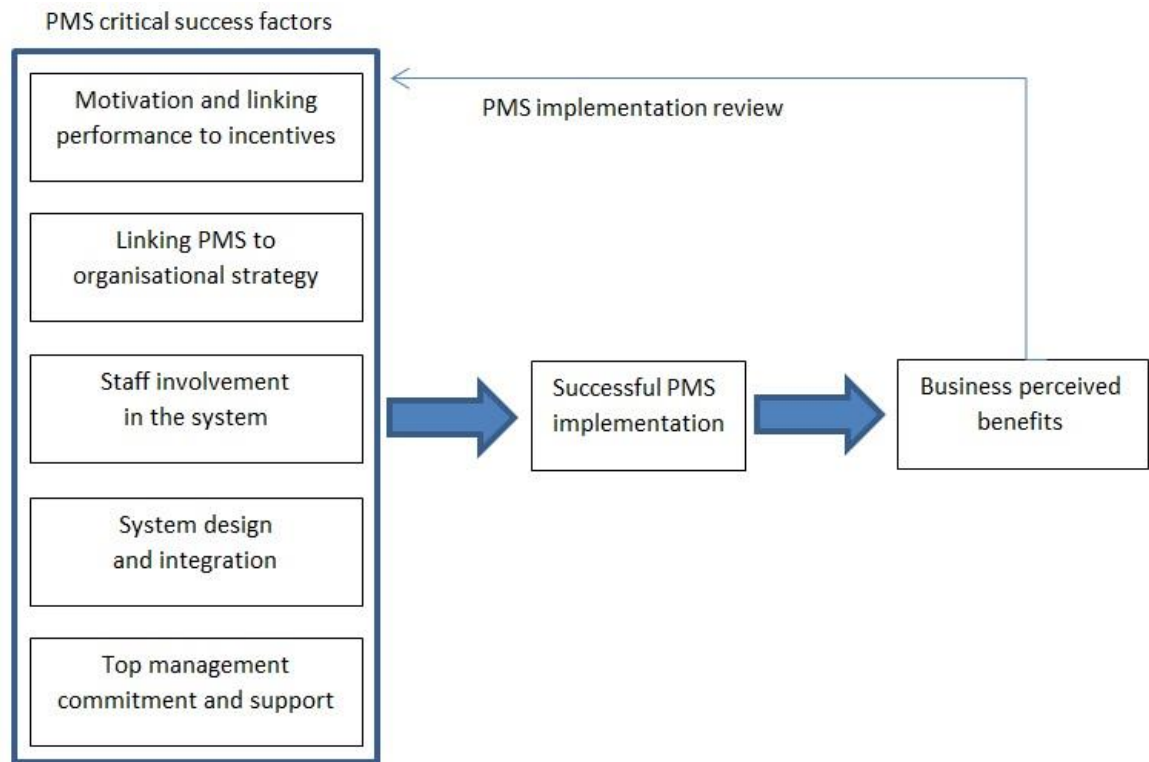


Figure 6.2: Proposed CSF framework for successful PMS implementation in UAE government organisations

This study found that these five factors are related to one another. For instance, higher levels of motivation are associated with higher levels of staff involvement. The results of linking PMS to organisational strategy depend on appropriate PMS design and integration. Top management commitment and support increase motivation within the organisation and staff involvement. Thus, every CSF has either a direct or indirect impact on the other factors. The order of CSFs in the framework was arranged from top to bottom according to their importance. Critical assessment of both literature and

empirical findings led to an understanding of the level of importance of every CSF based on the level of impact it has on PMS implementation and on the level of attention paid to it in the literature. As shown in this framework, the collective outcome of the five CSFs determines the success of PMS implementation. Weaknesses in any of the CSFs will affect the entire system. To understand the impact of each CSF, the following section describes the mechanisms of the associated factors and the different elements that affect their value. In addition, the measurement of each factor is described and examples of the KPIs that could be used are provided.

Moreover, the framework flow shows that the overall success of PMS implementation will result in perceived business benefits. These benefits can be measured using strategic KPIs. The closed feedback loop is essential for continuous improvement, as it indicates that this is a dynamic process that needs to be reviewed on a continuous basis. Therefore, the validity of the framework can be reviewed continuously, and if the benefits are found to be less than expected, the CSFs can be reviewed to determine the source of the problem. The five CSFs are briefly described to elaborate upon how they work and how they are measured. Also, a simple model is developed to illustrate this study's empirical findings for each factor; the model helps in understanding the mechanisms of each factor and the important elements that make it an effective and successful factor:

1. Motivation and linking performance to incentives

The literature stresses the importance of motivating people by offering incentives for performance and of setting personal targets, whether at organisational or staff level (Blasini and Leist, 2013).

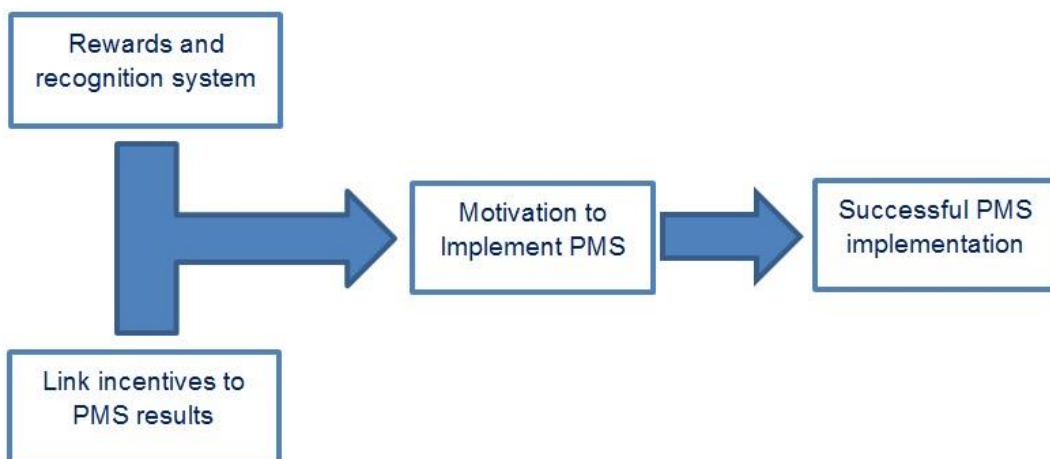


Figure 6.3: Motivation model for PMS implementation

However, the reason why this CSF is on the top priority list is that, in UAE government organisations, there is no link between PMS results and incentives; indeed, no system of rewards and recognition appears to be in place. Bourne et al. (2002) identified lack of motivation as a major threat to PMS success. Figure 6.3 illustrates the mechanism of motivation model and its contribution in promoting successful implementation of PMS. According to empirical findings in this study, the most important factors that stimulate desire and energy in staff to be continually interested and committed to PMS implementation are the link between incentives and PMS results and the availability of rewards and recognition scheme. The effective use of those two factors will create the desired level of motivation among staff to implement PMS. Consequently, this will support the successful implementation of PMS. The assessment of this model implementation can be done through auditing the organisation policy for such systems existence. In addition, measurement of the right implementation can be carried out using some KPIs such as staff satisfaction on rewards and recognition system, percentage and amount of incentives applied and its relation with PMS results.

2. Linking PMS to organisational strategy

Norton and Kaplan (2002) stated that linking PMS to an organisation's strategy is the most important factor in achieving successful implementation of PMS. Although the feedback in this study indicates that managers strongly subscribe to this view, in practice there is weak alignment between organisational strategy and PMS. KPIs are not strongly linked to the strategy and there is no proper cascading of initiatives from organisational objectives. PMS is not used as a strategic tool to implement organisational strategy. Figure 6.4 presents a model for successful alignment between PMS and strategy.

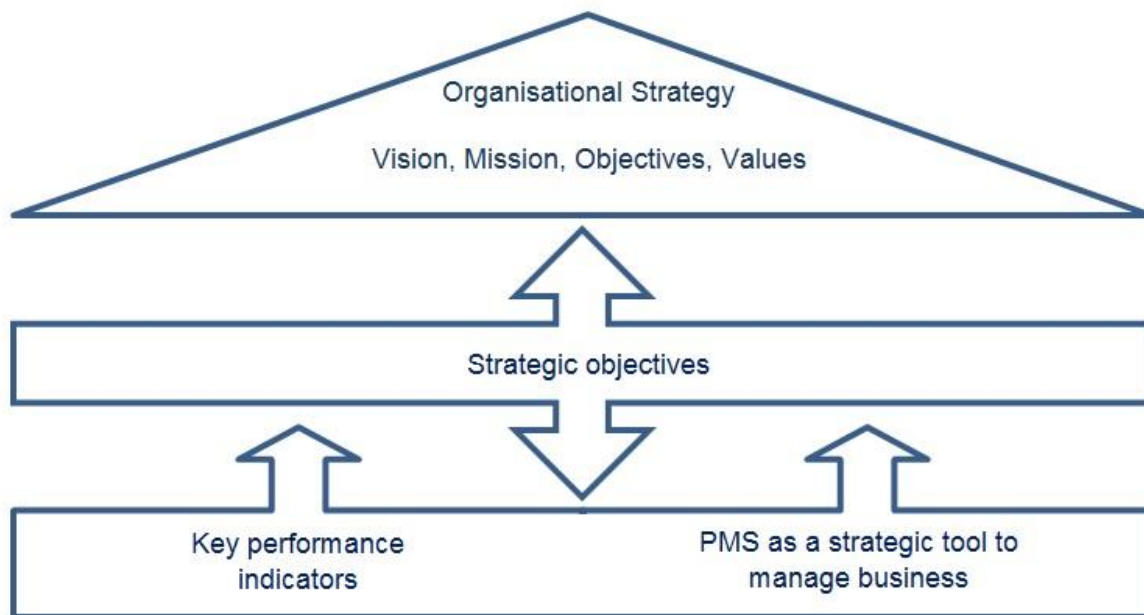


Figure 6.4: PMS alignment with organisational strategy

Based on the empirical findings, it can be perceived that the importance of the alignment between PMS and organisation strategy is strongly linked to the fact that strategy execution needs PMS to monitor and control strategy implementation.

As illustrated in PMS alignment with organisational strategy model (Figure 6.4), the model consist of three levels, the top level represents the organisation strategy, vision , mission, objectives and values. The middle level includes the strategic objectives and initiatives support strategy execution. Middle level usually operational level, where all initiatives and objectives in this level are derived from the strategy and converted to tasks and projects, implementation of this initiatives support strategy implementation. As illustrated in the proposed model, the bottom layer represent the PMS, where PMS contributes to the strategy through the key performance indicators which the heart of PMS. Similarly, PMS can be used to support the strategy execution as a strategic tool manages the business. Nevertheless, the model shows that the initiatives in middle level can be monitored and measured by PMS in the bottom level. The results can be feedback to the middle level to report the execution performance. Therefore, PMS cannot work independently; it should always be used to measure strategic issues and this gives it the greatest value in the organisation. The existence of this link can be assessed through auditing the organisation objectives and initiatives. All strategic objectives and initiatives should have KPIs and monitored by PMS.

3. Staff involvement in the system

According to evidence from this study, there is poor involvement by staff, especially at lower levels, in PMS implementation, owing to a number of factors, such as that only senior staff are involved in PMS design and that other staff do not have an opportunity to engage at the design stage, which leads to poor ownership of the system. In addition, staff at lower levels do not participate effectively in implementation. Poor awareness about the system and limited training are further reasons for this weak involvement. The literature highlights the importance for the success of initiatives such as PMS of involving staff in the decision-making process (Sadikoglu and Zehir, 2010).

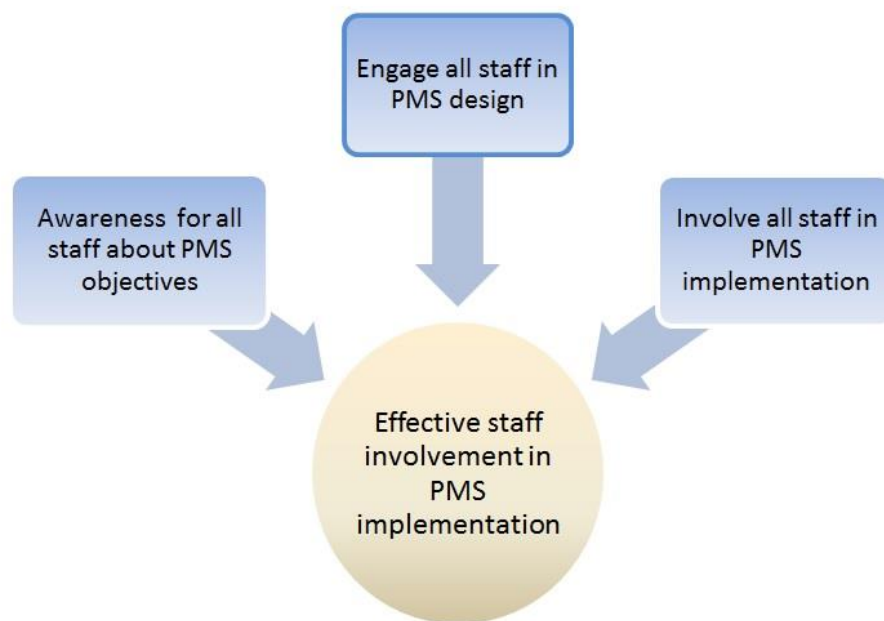


Figure 6.5: Staff involvement in PMS implementation model.

Figure 6.5 shows the staff involvement in PMS implementation model, this model summarises the contribution that staff awareness and involvement make to effective implementation of PMS. According to the empirical findings of this study, the effective involvement of staff in PMS implementation depends mainly on three factors, the sufficient awareness for staff about PMS objectives, the effective engagement of staff in the system design and the involvement of staff in PMS implementation. However, some of these factors are discussed in other sections in details, but the level of involvement can be assessed and measured through survey or review the project resource plan to see how many people participated in ever stage. Also, KPIs about training and awareness sessions and workshops can be obtained to assess people involvement.

4. System design and integration

Feedback from this study shows that the existing design is complex and requires major improvement if implementation of PMS is to be successful. The study also finds evidence of a lack of focus and the use of too many measures in the design, both of which increase the probability of failure. According to Neely et al. (2002), successful PMS implementation largely depends on appropriate design, and other researchers concur with this view (Richardson, 2004; Pawar and Driva, 1999; Bourne et al., 2002).

In addition, the study recorded complaints that PMS is not user-friendly and not cascaded properly to all levels in the organisation and that, moreover, the wrong KPIs were selected and they were poorly defined. Figure 6.6 shows a proposed model for effective PMS design. This model were developed based on empirical results and literature review, as illustrated in the figure, the five pillars for PMS effective design are the selection of the right indicators. Use of small number of KPIs, usually 6-9 in every level. Develop user friendly design that can encourage staff to use it. Ensure that KPSs are cascaded to all levels; this will involve different levels in the organisation in system implementation. And finally, make the design simple and flexible, so users can understand and can modify when necessary.

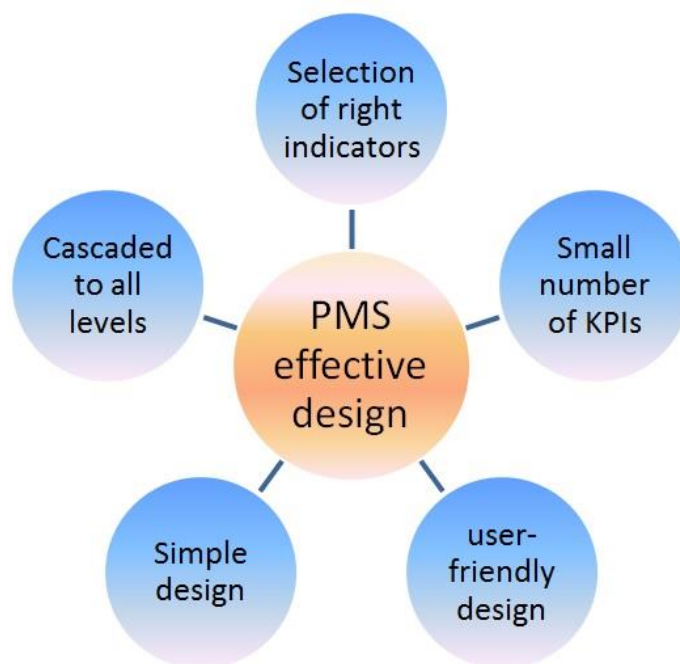


Figure 6.6: Effective PMS design.

The design is a technical part which usually controllable; therefore, it can be easily measured and assessed. The number of KPIs can be an indicator, so less number is better. Levels in the organisation covered by PMS are another KPI, more levels are better. Customer satisfaction survey also can be used to assess people satisfaction on the PMS design, so more users involvement will reflect in better satisfaction.

5. Top management commitment and support

This study has found that the level of existing support and commitment to PMS among top management is poor, although managers themselves acknowledge the weakness. This finding is in agreement with those of Kaplan and Norton (2000), Chrusciel et al. (2003), Richardson (2004) and de Waal (2002), among others. In addition, the literature stresses the importance of gaining consensus and buy-in from senior management early on, in order to establish legitimacy and visibility for the project (Ariyachandra and Frolick, 2008). Figure 6.7 illustrates the contribution of management commitment and support to successful implementation of PMS. Five motives were found in the empirical study affect positively top management commitment and support to PMS successful implementation. These motives are early stage involvement and engagement in setting PMS targets and objectives, this leads to better product and real ownership from the top management as they feel that it is their design. The second drive is importance of the role of top managers in allocating the right resources for PMS implementation; their responsibility on this area push them to prioritise this project and identify the best skills for it. The third idea is to ensure that PMS is the main source of reporting data, when managers directed to use PMS as the trusted source, they will understand its value and will give it more support. The fourth technique is to keep PMS as an agenda item in main business meeting, so keeping it under the focus will increase top management commitment towards its success.

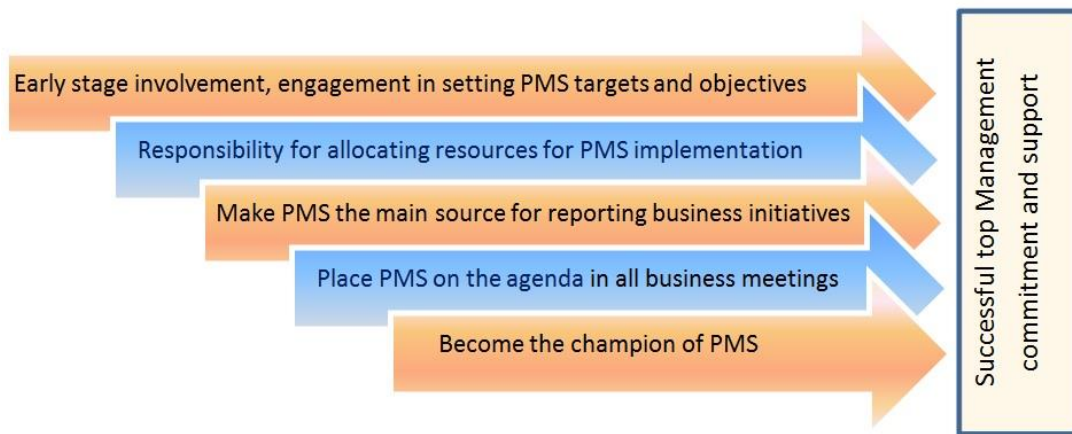


Figure 6.7: Top management commitment and support for PMS implementation

Finally, use top managers as the champion of PMS in their departments, this will enhance the feeling of ownership and lead to better support and commitment. If top management give PMS the right attention, staff will follow, and system implementation will be successful. Top management commitment can be measured through auditing their actions and their involvement in implementing PMS initiatives.

As a result, the proposed framework highlights the top CSFs that need to be addressed; it assists organisations to focus their attention on those important areas which have significant impact on successful PMS implementation. In addition, this research has made a theoretical contribution to our understanding of the CSFs that impact on successful PMS implementation. The results and outcomes of this study extend current theory and help organisations to plan properly for PMS successful implementation and focus their efforts and resources on the CSFs. In addition to the academic contribution of this study, it has great benefit to the organisations, it reduced the risk of failure in implementation and support top management to better utilise their resources and understand areas of concern. Figure 6.8 shows the full proposed model for PMS CSFs in UAE government organisation with sub models for individual CSFs.

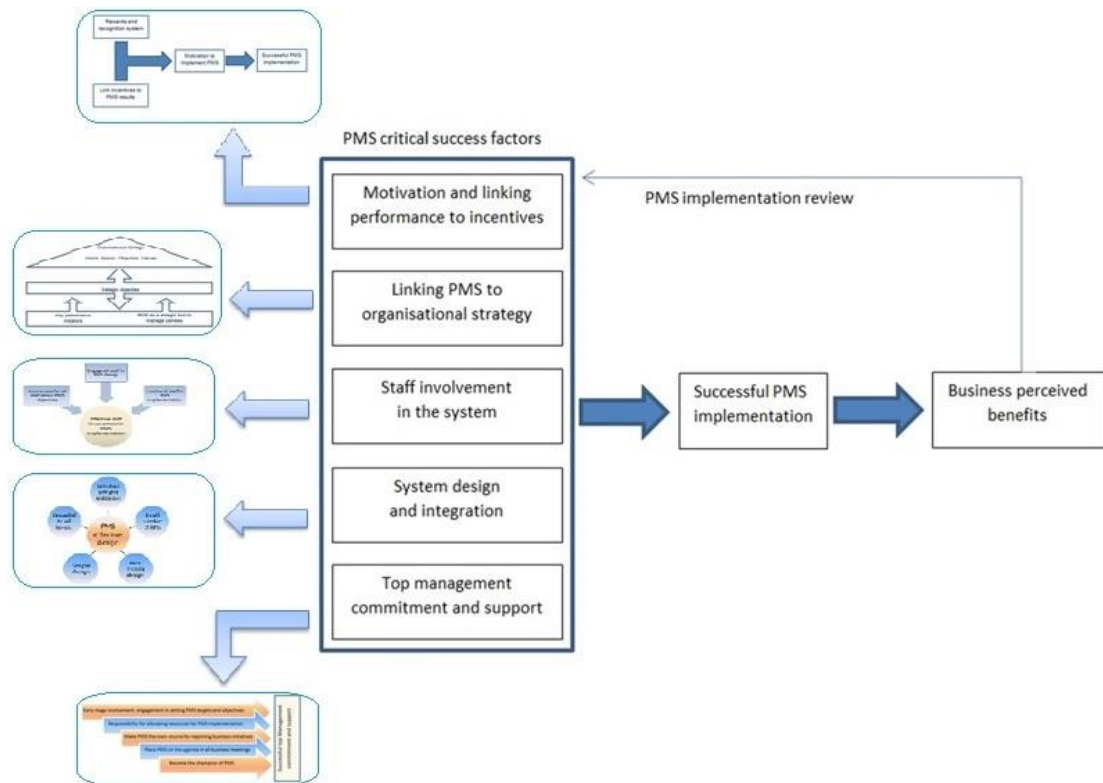


Figure 6.8: Proposed CSF framework for successful PMS implementation in UAE government organisations with individual CSFs models.

6.4 PRACTICAL IMPLICATIONS FOR UAE GOVERNMENT ORGANISATIONS

It is crucial for UAE organisations to have a better understanding of the CSFs influencing PMS success, in order to enable them to focus on those particular factors and thus optimise their resources and efforts (Yeoh and Koronios, 2010). It is in the nature of exploratory studies to indicate rather than conclude (Crouch and McKenzie, 2006). Notwithstanding the complexities in implementing PMS, there has been little empirical research about the CSFs impacting its successful implementation (Yeoh and Koronios, 2010), especially in UAE and the Middle East. The present study, specifically the analysis chapters, has attempted to anchor its findings against those of research conducted by scholars, but it has become apparent that PMS implementation within

UAE government organisations is an area neither well researched nor well documented. Therefore, it was a challenging task to undertake a study in this context.

The findings from the study have practical implications for UAE government organisations and probably other public sector organisations and policy-makers that are aiming to improve their performance. The study has explored the CSFs important for successful implementation of PMSs within UAE government organisations, and the results may encourage UAE government organisations to pay more attention to the shortcomings and weaknesses that influence the implementation of a PMS, thereby enhancing their chances for better results and further continuous improvement. For policy-makers, the findings may highlight certain issues that require improvement and shed light on the opportunities for achieving better performance outcomes. Strong alignment between business strategy and the PMS was found to have great impact on both strategy and the successful execution of a PMS. Also, introducing a motivation and incentives scheme and building the right indicators are important factors in achieving a successful PMS.

6.5 LIMITATIONS OF THIS RESEARCH

Although this study makes several contributions to knowledge, it suffers from several limitations. One is the sample size: only five cases were reviewed and 26 interviews conducted, owing to pressure on time and lack of resources. A bigger sample size would provide more qualitative information and cover more issues. Another limitation is the type of organisation surveyed: all were utilities (power, water and sewerage), owing to difficulty in securing access to other government organisations. Various types of government organisations may undertake their own research and their findings may support the generalised findings of the current study. Another limitation is the culture: this study was conducted in a culture that has had little experience of participation in surveys and research topics, so participants may not always have understood the questions or felt comfortable in a research context. The researcher tried to overcome this by obtaining senior management approval for interviews and developing an interview protocol to ensure that interviews were conducted in the best setting. A

further limitation is the small number of previous studies on the subject, yielding rather sparse background information and references.

Furthermore, access to the public to data in the government sector in UAE is difficult or impossible. Another limitation to this study is that it focuses on only the senior managers and does not include empirical evidence from the employees within the organisation. The decision to focus on senior managers as part of purposive sampling was made for a good reason. There being a lack of published literature on this subject, rich empirical findings from senior leaders established an important foundation for future research, which should expand to include all employees in the organisation.

6.6 DIRECTIONS FOR FUTURE RESEARCH

Given the study's sample size, limited resources and regional focus, many opportunities exist for extending the work on the implementation of PMSs, based on the present findings and recommendations. There is an opportunity to undertake quantitative study to validate the findings, leading to the building of a theoretical model of PMS CSFs, which is beyond the scope of this study. In addition, further studies may be useful in different types of organisations.

Some of the findings of this research also suggest more specific directions for further study, for instance, exploring the interrelationships between different CSFs and how they affect one another, or assessing the impact of various individual CSFs, with a view to ranking and prioritising them. Further research could investigate in more detail the effect of one group of CSFs such as human CSFs or process CSFs.

6.7 CONCLUDING REMARKS

PMS and its implementation in UAE is a relatively new area. This study attempted to reduce the gap in the literature on PMSs in UAE in the public sector (Amir and Amizawati, 2010; Jamil et al., 2011; Ruzita et al, 2009; and others). The study was undertaken specifically to shed more light on the critical CSFs influencing the

implementation of PMS. It is a valuable contribution to the study of PMSs in government organisations, yielding important information for performance management researchers, local government practitioners and policy-makers.

The process of successfully implementing a performance management system is currently under-researched (Cheng et al., 2005). The study started by reviewing the literature, which produced a list of the common CSFs that support PMS implementation and identified some gaps in this area, including the lack of research on the subject in developing countries compared to developed countries and in the government sector versus the private sector.

This study makes several contributions to the literature on CSFs that influence successful PMS implementation in the public and government sector, principally in UAE, by evaluating the impact of CSFs in this context and the complex relationship between CSFs and implementation of PMS. Although the present research extends the work of others who explored CSFs in relation to PMS – Bourne et al. (2002), de Waal (2003), Radnor and Barnes (2007), Cheng et al. (2005), Ariyachandra and Frolick (2008), Ferreira and Otley (2009), Hawke (2012), Goh Swee (2012) among them – it uses a different approach to identify the specific CSFs in the setting of UAE government organisations. Such an approach can be applied to developing countries, but the outcomes could vary from country to country. Having investigated the causes of the weaknesses and gaps in the critical factors in UAE government organisations, the study has recommended means of improvement.

This study makes a contribution to knowledge by bringing to light the ubiquity of performance management in government organisations. The study also contributes to the literature on PMS in the government sector in developing countries, presenting a theoretical model for CSFs that support the successful implementation of PMS and using the model to arrive at findings and conclusions.

The findings and recommendations in this thesis could serve as guidelines to practitioners in the field of PMS and are expected to help government and public organisations fully benefit from the implementation of PMS.

6.8 PERSONAL REFLECTION

Before discussing my PhD research learning experience, I should provide the background to it from both my career and my experience in academia. My experiential learning began over twenty years ago after I graduated as an electrical engineer. I joined the largest oil company in my country as maintenance engineer and spent five years in the role before moving to the water and electricity authority as a project engineer. In 2002 I obtained my MBA, which helped me to develop my business skills.

In 2005 I was promoted to head of department in the field of operations, giving me greater business responsibilities. In 2009 I transferred to the lead asset performance department, where I had the opportunity to contribute more to developing strategies and policies, thus enhancing my competencies and skills in this area. In mid-2010 I was appointed a director for networks, a role in which I managed the country's largest power and water transmission network, with an asset portfolio in excess of \$15 billion and more than 550 staff. In 2012 I was additionally appointed chairman of Al Mirfa Power Company, one of the major power and water producers in Abu Dhabi. I am a member of many committees in the organisation, such as the tender committee, the risk committee, the human resources committee and the crisis management committee.

In 2010, during this period, I obtained my chartered engineering professional qualification (CEng) awarded by the Engineering Council of the UK. In 2014 I was elected a Fellow of the Institute of Engineering and Technology (FIET). I am an active member of the International Council for Large Electric Systems (CIGRE), which deals with electric power systems issues related to generation, transmission and distribution, and sit on the board of directors for the regional committee for this council covering the Gulf Cooperation Council (GCC CIGRE). Further, I am a member of the technical committee of GCC CIGRE and participate in organising the annual conference, as well as evaluating technical papers submitted for the conference. I chair one of the study committees of GCC CIGRE and am the country representative in the GCC interconnection power network operation committee. I was appointed in 2010 and again in 2013 as chief editor for the GCC electricity magazine, published annually by GCC CIGRE.

My PhD journey at Southampton was not easy. I faced many difficulties: personal issues, family commitments and being overloaded with responsibilities at work and the requirement to complete assignments at the same time. However, I was highly motivated to complete my PhD, as the challenging roles and responsibilities of my career demand more knowledge of me, especially in strategic and operations management. It has taken me eight years to reach this point, and during that time I have had to travel frequently from my country to UK to attend courses or to meet my supervisors; also, as a part-time student, organising myself to make time for my studies was a big challenge.

I used to believe that implementing business change projects in organisations was a simple undertaking, but this study has shifted my perception diametrically. Organisations are complex systems. The introduction of a new system such as PMS relies heavily on elements such as human behaviour, processes and infrastructure. My research has thus given me an opportunity to stand back from a busy routine managerial schedule and try to understand the world in a different way. Moreover, it has enabled me to learn about the philosophy of science.

My experience with respondents yielded more learning. It was not easy to persuade people to express their views and share their experiences in a culture where such practices are uncommon. I found it much harder than I had expected to get access to data in the organisations in this region. Furthermore, it took a year to get approval for this study, which had a different scope from my original plan.

I have come to appreciate the difficulty of academic writing. Writing a thesis is challenging, given the high standards and stringent requirements. However, I learnt a great deal from my supervisors' comments and discussions, and feel that my writing has considerably improved. The writing of the methodology chapter was the biggest challenge for me and took the longest time. If I were to undertake a similar study again, I would set out the design of the project and the research mapping on a single sheet of paper and get it approved by my supervisors before wasting time producing very detailed writing, much of which would be revised or removed at the end.


However, I have no such reservations about the merits of the subject of this study or the approach adopted. Performance management is little known in UAE, and I believe that

it is a good area in which to make a contribution, in order to support efforts to improve business organisations there. Although qualitative research presents a challenge, and quantitative research would, in my view, be easier, qualitative research was undoubtedly the best way to conduct an exploratory study looking to investigate the relevant phenomena. I believe my PhD study has provided a contribution to knowledge about the CSFs for the implementation of PMS in developing countries, which to date has been the focus of a negligible amount of attention.

Appendix 1: ADWEA companies profile

The participant companies are classified into three categories:-

- ADWEA and its fully owned companies - (Government); this includes 6 companies; ADWEA, ADWEC, ADDC, AADC, TRANSCO and AMPC;
- Independent Water & Power Producers – IWPP's (Private) and this includes 8 companies; ECPC, GTTPC, SCIPCO, APC, TAPCO, ESWPC, FAPCO and RPC; and
- ADSSC, which is fully government organization (Government).

Abu Dhabi Water & Electricity Authority - ADWEA	
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ADWEA is a national organization wholly owned by the Abu Dhabi Government, maintaining a separate legal entity, as well as complete financial and administrative independence. ADWEA has been incorporated by virtue of law No. 2 issued in March 1998 to replace the former Water & Electricity Department.

ADWEA is responsible for implementing government policy regarding water and electricity sector in the Emirate, including privatization of the water and electricity sector. Abu Dhabi Water and Electricity Authority supplies electricity and potable water to a population of more than 1.5 million in the emirate of Abu Dhabi, over an area of 67340 sq. km.

ADWEA manages the affairs of following wholly-owned subsidiaries responsible for different activities in the water and electricity sector

- Abu Dhabi Water and Electricity Company – ADWEC – forecasting and market operator;
- Abu Dhabi Transmission and Dispatch Company (TRANSCO) – Transmission;
- Abu Dhabi Distribution Company – ADDC – Distribution;
- Al Ain Distribution Company – AADC – Distribution; and
- Al Mirfa Power Company – AMPC – Power Generation and Water Production.


At present, ADWEA holds 60% of equities in the following Independent Water and Power Produces (IWPPs):

- Emirates CMS Power Company –ECPC;
- Gulf Total Tractebel Power Company – GTTPC;
- Shuweihat CMS International Power Company – SCIPCO;

- Arabian Power Company – APC;
- Taweelah Asia Power Company – TAPCO;
- Emirates Semcorp Water & Power Company – ESWPC;
- Fujerah Asia Power Company – FAPCO.and
- Ruwais Power Company- RPC

ADWEA GROUP OF COMPANIES


The following are the wholly-owned subsidiaries of ADWEA which are involved in different activities in the water and electricity sector in the Emirate of Abu Dhabi:

Abu Dhabi Water and Electricity Company (ADWEC)	
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ADWEC is a private joint stock company whose main office is located in Abu Dhabi. ADWEC is the single buyer and seller of water and electricity output and capacity from producers under various power and water purchase agreements (PWPAs) and charges the distribution companies for water and electricity, delivered via the TRANSCO networks under a Bulk Supply Tariff (BST).

Abu Dhabi Transmission and Despatch Company (TRANSCO)	
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TRANSCO is a private joint stock company whose main office is located in Abu Dhabi. It receives supplies of water and electricity from the production companies connected directly to the Abu Dhabi water and electricity grids for onward transmission to the distribution companies. The company is responsible for transmission of electricity at high voltages of 400, 220 and 132 kV and for despatch of generation units, water storage and water transmission of 1600 mm to 800 mm pipelines throughout the Emirate.

Abu Dhabi Distribution Company (ADDC)	
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ADDC is a public joint stock company whose main office is located in Abu Dhabi. The company distributes and sells water and electricity to around 216,000 customers in the Municipality area of Abu Dhabi. The company is responsible for distribution of electricity at medium voltage of 33 and 11 kV.

Al Ain Distribution Company (AADC)	
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AADC is a public joint stock company with its main office located in Al Ain city. AADC carries out the distribution and supply of water and electricity to around 86,000 billed customers in the Al Ain area. The company is responsible for distribution of electricity at medium voltage of 33 and 11 kV and water distribution of 800 mm to 50 mm and customer supply.


Al Mirfa Power Company (AMPC)	
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AMPC is a public joint stock company which operates two power stations at Al Mirfa and Madinat Zayed with a total licensed capacity of 380 MW. Water production is at Al Mirfa station only, with a licensed capacity of 38.7 MIGD. The company sells its capacity and output to ADWEC.


INDEPENDENT WATER & POWER PRODUCERS – IWPP

The Abu Dhabi Government, through ADWEA, implements the long term privatization program of the water and electricity sector. Eight independent producers of water and electricity

are now engaged in this program on the basis of BOO “build, operate and own” formula, designed according to the partnership agreement made between ADWEA and a number of international companies. ADWEA holds a 60% share of these, while 40% ownership is held by the foreign investor. In accordance with long term arrangements IWPP’s are committed to sell their production to ADWEC.

Emirates CMS Power Company - ECPC	
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ECPC is a private joint stock company with its main office located in Abu Dhabi. The company operates a generation and desalination plant at the Al Taweelah site identified as “A2” of licensed capacities 710 MW electricity and 50 MIGD potable water. ADWEA owns 60% of the shares, while CMS Generation owns 40%. The company sells its whole production to ADWEC.

Gulf Total Tractebel Power Company - GTTPC	
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GTTPC is a private joint stock company with its main office located in Abu Dhabi. The company operates a generation and desalination plant at the Al Taweelah site identified as “A1” with licensed capacities 1350 MW electricity and 84 MIGD water. ADWEA owns 60% of the shares, while Total Fina Elf owns 20% and Tractebel owns 20%. The company sells its whole production to ADWEC

Shuweihat CMS International Power Company - SCIPCO	
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SCIPCO is a private joint stock company located in Abu Dhabi. The company has been established to build, own and operate a power generation and water desalination facility at Jebel Dhana, near Shuweihat, with licensed capacities of 1,500 MW and 100 MIGD. Production commenced in 2004. All production is then sold to ADWEC. ADWEA owns 60% of the shares, CMS owns 20% and International Power owns 20%.

Arabian Power Company - APCO	 الشركة العربية للطاقة Arabian Power Company
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APC, a private joint stock company, has been established to operate and maintain existing power generation and water desalination plants as well as building, owning and operating additional production capacity at Umm Al Nar for the sale of electricity and water output to ADWEC. The licensed capacities are 2,200 MW and 160 MIGD until the end of 2008 and 1,550 MW and 95 MIGD thereafter. ADWEA owns 60% of the shares, International Power owns 20%, Tokyo Electricity owns 14% and Mitsui owns 6% per cent.

Taweelah Asia Power Company - TAPCO	 TAPCO TAWEELAH ASIA POWER COMPANY
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TAPCO is a private joint stock company which operates two power generation and water desalination plants (B plant and B2 extension) at Al Taweelah compound with a total licensed capacity of 2,000 MW and 160 MIGD. The company sells its production to ADWEC.

Emirates SembCorp Water & Power Company – ESWPC- F1	 شركة الإمارات سينمكورب للماء و الطاقة EMIRATES SEMBCORP WATER & POWER COMPANY
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ESWPC is located at Qadfaa in Fujairah, which is one of the northern emirates in the UAE. The company produces 861MW of power and 100 MIGD of desalinated water. The majority of the water is being transferred to Abu Dhabi through a pipeline owned and operated by TRANSCO.

Fujairah Asia Power Company – FAPCO - F2	 شركة الفجيرة آسيا للطاقة FUJAIRAH ASIA POWER COMPANY
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FAPCO is the second company licensed to operate in Qadfaa at Fujairah. The company generates 2000 MW of power and desalinates 100 MIGD of potable water in addition to 30 MIGD of potable water produced by reverse osmosis technology.

Ruwais Power Company - RPC

ADWEA is presently constructing a new power plant, Ruwais Power Company, with anticipated production of 1600 MW of power and 100 MIGD of potable water. The prospective yield is expected on 2011/2012.

Abu Dhabi Sewerage Services Company - ADSSC

The last company included in this survey is ADSSC; which provide service to millions of customers and it has very rich experience through its journey which started as an entity under municipality then transferred to ADWEA and after that moved to the executive council.

Also, they use unique integrated system for managing performance, it is an automated tool (ARP), wherein Process, Risk, Business plans and Strategic Plans are seamlessly linked and KPI's used to build performance reports. One more strength of ADSSC is that its chairman is ex director of Performance Department in executive council, and he invest a lot to lead the performance management in this organization. Moreover, its roots as a government entity will allow for triangulation and investigating different views.

Appendix 2: Interview Protocol

Personal bias could enter the interview, depending on staff morale, how individuals have been treated or perceived to have been treated and how they feel towards the organisation at the time the survey is undertaken. Further bias could be caused either by the interviewer misunderstanding the answer or the interviewee saying what he or she believes the interviewer wishes to hear (Yin, 2009). To mitigate these factors, the interviews were arranged in quiet places to limit distractions and the questions were seen in advance by the interviewees.

The interviews were organised systematically to obtain the best results, in accordance with standard guidelines, as follows.

1. The location and time of the interview and its duration were agreed with the interviewees in advance.
2. The interview questions were sent to the interviewee ahead of the interview with a covering letter asking for any documents, data and resources that might be helpful to be identified or submitted.
3. The interviewer arrived at the location early and was well prepared with a notebook and the questionnaire.
4. The interviewer explained the purpose of the interview, knew what to look for, was interested in the topic, controlled the interview situation and was open to alternative ways of thinking.
5. The interviewer asked for permission to use a digital voice recorder, as the culture in this part of the world is very sensitive to this practice. If interviewee was not comfortable with this, the interviewer took notes in writing.
6. The interview started with unstructured questions, followed by some probe questions to ensure that the interviewees' perceptions and concerns were raised and to encourage the most informative responses. As an example:
Can you tell us about the history of performance management in your organisation?
How do you see PMS use and implementation in your organisation?
Do you believe that PMS adds value to the business?
7. The interview included some follow-up questions to supplement probe questions that failed to cover the desired areas.

8. The interviewer asked for examples and evidence for practices mentioned during the interview, and followed up with questions for elaboration or confirmation, some of which were additional to those that had previously been circulated but arose during the interview.

9. At the end of the interview, the interviewer requested secondary data resources, such as business plan, annual reports, performance reports and details of the company's communication process. The interviewer wrote letters to thank the interviewee and ask for confirmation of promised materials and any extra information needed. Finally the interviewer sent the written answers to the interviewee and asked him or her to confirm/amend them. At this point, additional information could be requested via telephone or face-to-face meeting.

Appendix 3: Interview Questionnaire

Area of Concern	Code:	Date:	Time:
<p>Linking to organisation strategy</p> <p>Is Performance Management System (PMS) fully linked to your organization strategy?</p> <p>Give me an example of this link in your daily work?</p> <p>2. System design and integration</p> <p>Do you understand the system very well, is it clear for you?</p> <p>Is PMS user friendly?</p> <p>How it links to other systems in the organization?</p> <p>Does it cascade to all levels?</p> <p>3. Top management commitment and support</p> <p>What was top management role in PMS project team?</p> <p>Was top management involvement effective?</p> <p>Do you see top managers involved in the project to the end?</p>			

Area of Concern	Code:	Date:	Time:
<p>4. IT infrastructure and support</p> <p>How much of your PMS is automated?</p> <p>How do you see IT system support for PMS?</p> <p>Do you think that IT staff support is sufficient?</p> <p>Do you think that there is more scope for better automation? How?</p> <p>5. Effective data management process</p> <p>Do you have process to manage data needed for PMS?</p> <p>Do you have problem with quality and accuracy of data in your organization?</p> <p>Do you have software for data management? Is it important?</p> <p>Do you need to input a lot of information into the current system?</p>			

Area of Concern	Code:	Date:	Time:
<p>6. Staff involvement in the system</p> <ul style="list-style-type: none"> Were you part of the system development? Does PMS linked to your daily work? How do you see your staff interest in PMS? Why? Are all staff involved in this system? <p>7. skills and competencies</p> <ul style="list-style-type: none"> Does your organization have the rights skills to run PMS? Does the system require huge efforts? Does it worth it? Can your organization implement PMS with existing expertise? <p>Staff training and awareness</p> <ul style="list-style-type: none"> Is PMS simple or need training? Have you received any training on PMS? Do you think that staff are aware of the PMS? Do you believe that the training provided for this project is sufficient? 			

Area of Concern	Code:	Date:	Time:
<p>Clear targets and business benefits</p> <ul style="list-style-type: none"> Why does your organization use PMS? Does the organization use PMS results to improve the business? How? <p>Continuous monitoring and reporting</p> <ul style="list-style-type: none"> Do you receive regular reports from PMS? How does your organization review PMS results? Who manage PMS in your organization? <p>11. Motivation and linking performance to incentive</p> <ul style="list-style-type: none"> Does your organization link its annual PMS results to the incentives? Do you receive any personal benefits if the organization performance improved? 			

Area of Concern	Code	Date:	Time:
<p>12. Change Management</p> <p>Is it good to have PMS or do you prefer the existing system?</p> <p>Do you think having new PMS is a good idea?</p> <p>Does PMS need more time and efforts? Is it worth it</p> <p>13. Communication</p> <p>How do you receive PMS news and results?</p> <p>Is there any regular meeting or exchange of information about PMS?</p>			

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No	CSF	Kaplan and Norton (1992)	Kaplan and Norton (2000)	Neely et al. (2000)	Bourne et al. (2002)	de Waal (2002)	Ho and McKay (2002)	Kennerley and Neely (2002)
1	Linking PMS to organisational strategy	Align the Organization to the Strategy	Translate the strategy to operational terms and align the organisation to the strategy			Managers have insight into the relationships between business processes and CSFs/KPIs		culture – ad hoc measures, not integrated with the organisation’s strategy and not used to manage business
2	System design and integration		BSC implemented at top management, not cascaded down the organisation	The need for the PM system across subsidiary companies should be the same.	many of the factors causing problems for implementation of PMS could be attributed to poor design process.	Managers agree on changes in the CSF/KPI set.	Different interpretation of the BSC by different managers	lack of focus, too many measures
3	Continuous monitoring and reporting		Role of the quality department and Continuous improvement			Managers are involved in making analyses. Managers can use their CSFs/KPIs/BSC for managing their employees.		Lack of proactive review process and Lack of data analysis and use
4	Clear targets and business benefits	Translate the Strategy to Operational Terms (Strategy Map, BSC)	misuse of BSC		The perceived lack of benefit from proceeding with performance measurement	Managers’ KPI sets are aligned with their responsibility areas. Managers find the performance management system relevant because it has a clear internal control purpose. Managers clearly see the promoter using the performance management system.	BSC did not ensure good customer service	
5	Top management commitment and support	Mobilize change through Executive leadership	lack of top management commitment and support	The top management’s full commitment to the PM	Continued Management Commitment	Managers clearly see the promoter using the performance management system. Managers realize the importance of CSFs/KPIs/ BSC to their performance.	It required additional time from the management.	the availability of management time to reflect on measures
6	Staff involvement in the system	involvement, BSC is a change project not metrics	poor staff involvement			Managers understand the meaning of KPIs.		The acceptance of measurement throughout the organization and the organization’s readiness for change
7	Skilled resources running the system		inexperienced consultants	Availability of appropriate resources and the necessary level of human effort	Time and efforts required			the lack of the necessary skills and human resources
8	Staff training and awareness	Make the Strategy Everyone’s Everyday job (Communication, Motivation, Personal Scorecards, Incentives,)	consider BSC as project and not idea for change					
9	IT infrastructure and support	Make Strategy a Continual Process (analytics and IS monitoring and reporting, link budget to strategy, Management meetings)		Information technology support	Difficulties with data access and the information technology systems			the lack of flexibility of information systems to collect the required data
10	Effective data management system		Quality data and reporting			Managers trust the performance information.		lack of data analysis and use
11	Motivation and linking performance to incentives				The perceived lack of benefit from proceeding with performance measurement		Branch managers thought it to be ineffective because it created hurdles for the employees to get bonuses	
12	Change management		BSC considered as a project and not an idea for change		The personal consequences from applying performance measurement			the organisation’s readiness for change and the acceptance of measurement throughout the organisation
13	communication		Communication to improve quality			Managers’ results on CSFs/KPIs/BSC are openly communicated.		

Table 2.2 : Summary of CSFs from literature