Understanding Performance Planning

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This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has lead to the award of a degree.

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"Thanks to God, who helped me in achieving this work"

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My thanksgiving to God to whom everything is possible....

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Abstract

The literature entitled performance planning seems to be mainly focused on planning and managing the performance of the individual. Therefore, as the performance planning interacts with all other processes or activities within the performance management process, it appears to be a central activity and also there appears to be a degree of systems thinking evident in the literature as many authors consider managing performance of different systems, such as an organisation, a process and an individual. Therefore, the key features of a performance planning as a system is that target performance level is known, in turn leads to performance planning framework. Then the existing performance measurement models were tested against the criteria stipulated in the framework suggesting that there is a gap in the theory, accordingly the objective of this research is to explore the relationship between performance planning and performance within the overall performance management process. The paradigm used in this research is typically linked to the qualitative research perspective as this research is attempting to understand the relationship between performance planning and performance within the overall performance management process. In this research multiple case studies were used in order to assess the model and assess the relationship between completeness of the performance planning process and attained performance in 34 case studies (system) in two different organisations. The findings of this research are that the relationship between the completeness of performance planning process and performance is inconclusive. However, there appears to be greater tendency towards a positive relationship between the objective and target setting aspects when compared to monitoring and control aspects where the tendency is towards more negative relationships.

Contents

List of Figures

List of Tables

CHAPTER 1

INTRODUCTION

1.1 Introduction

In recent years many organisations have been busy implementing new or improved performance management systems. Recent research shows that the regular use of these systems leads to better organisational results (Ittner *et al.*, 2003; Lawson *et al.*, 2005; Said *et al.*, 2003; Sandt *et al.*, 2001). There is however little knowledge about the actual mechanisms which cause the positive effects of performance management (Bourne *et al.*, 2000). This might be because considerable research has gone into the design and implementation of a performance management system and into the effects performance management has on organizational results (De Waal, 2002; Lawson *et al.*, 2005) but there appears to be little literature on performance planning. Generally, the literature entitled performance planning seems to be mainly focused on planning and managing the performance of the individual (Harrington, 1998; Bacal, 2003; Rudman, 2003; Armstrong, 2006). The literature on performance planning of the organisation is covered in greater depth under strategic planning literature and performance improvement literature. Performance planning is the starting point of the performance management cycle (plan-do-check-act) (Bredrup, 1995; Ainsworth and Smith, 1993; Storey and Sisson, 1993; McAfee and Champagne, 1993; Armstrong, 2000 and 2006), suggesting that there is a gap in the theory concerning performance planning of any system. Therefore, *the objective of this research is to explore the relationship between performance planning and performance within the overall performance management process.*

1.2 Structure of the thesis

The following chapter, i.e. Chapter 2, is a detailed literature review on performance planning. The chapter first justifies the scope of the literature review, which includes performance management and the strategic planning along with scenario planning then the available literature in performance planning in addition to the performance measurement and performance improvement techniques such as: Six Sigma, lean, and theory of constraints. The literature review results in a framework which describes the key components of the performance planning process. The framework is compared to the existing performance measurement models and frameworks which clearly show that the existing performance measurement models and frameworks do not adequately represent or fulfil all the components identified in the framework. The Chapter concludes with a question as to the use of the performance planning process, as described by the framework, in practice. Chapter 3 proceeds by investigating how the performance planning framework is applied in practice. This is achieved through semi-structured interviews with top managers from various organisations in Egypt. The chapter concludes that these companies do apply the performance planning framework informally. This finding suggests that the theory of performance planning is not complete, leading to this research question "How would more systematic (i.e. formal) use of the performance planning model influence performance?". Chapter 4 describes the research questions, reviews the pertinent literature on research methods and designs a case study based research programme to seek answer to the questions posed. In Chapter 5, the researcher develops a process model for performance planning based on Systems Theory. In Chapter 6, the model is assessed and assesses the relationship between completeness of the performance planning process and attained performance in 34 systems in two different organisations. Chapter 7 analyses the findings resulted from the research, answers the research questions, then conclusion is determined and suggestion for future studies is discussed. Figure (1.1) gives a brief illustration to the research process.

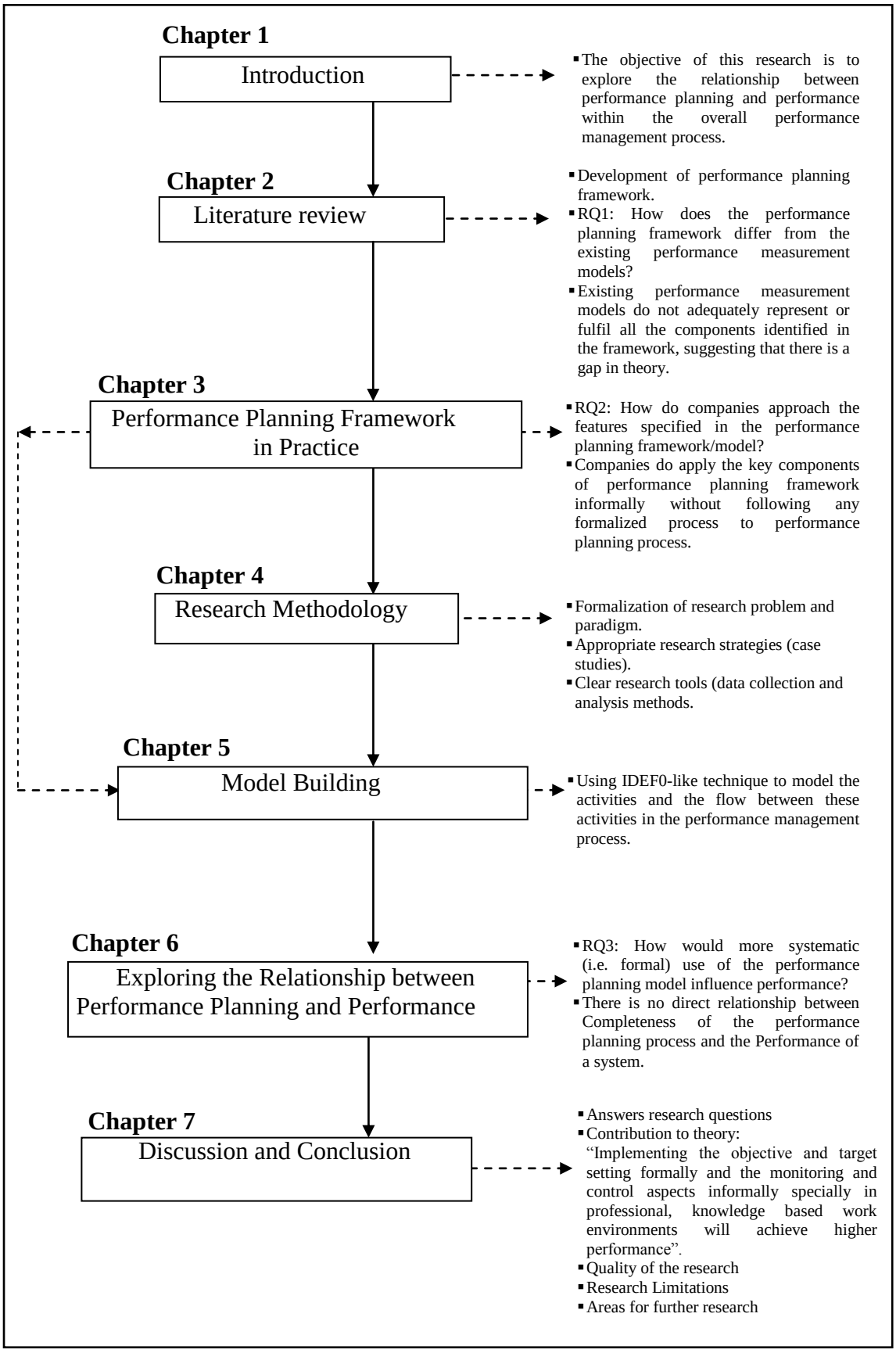


Figure 1.1: The research process

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

According to, Rousseau *et al.* (2008) there should be an adoption of good scientific practice of systematic research syntheses. Systematic means comprehensive accumulation, transparent analysis, and reflective interpretation of all empirical studies pertinent to a specific question. Reliance upon any sampling or subset of the literature risks misrepresenting its diversity in findings, outcomes methods, and frames of reference. The relevant balance of evidence typically is available via the internet, readily to scholars with electronic library access and ties to the broad scientific community. Systematic research syntheses evaluate a field's knowledge claims while recognizing omissions, limits, and untested assumptions. Syntheses separate replicable findings from noise. If a synthesis were available to identify where stable effects do in fact exist, researchers would be less likely to interpret apparent inconsistency as intractable complexity (Schmidt, 1992). Importantly, syntheses can also yield insights unrecognizable by the original researchers or other less systematic literature review. This research carried out a systematic research "Synthesis for Explanation" (Rousseau *et al*., 2008) to use it as the basis for exploring the relationship between performance planning and performance within the overall performance management process

This research is motivated by the belief that implementing new or improved performance management systems shows that the regular use of these systems leads to better organisational results (Ittner *et al.*, 2003; Lawson *et al.*, 2005; Said *et al.*, 2003; Sandt *et al.*, 2001). There is however little knowledge about the actual mechanisms which cause the positive effects of performance management (Bourne *et al.*, 2000).

This might be because considerable research has gone into the design and implementation of a performance management system and into the effects performance management has on organizational results (De Waal, 2002; Lawson *et al.*, 2005) but there appears to be little literature on performance planning. Generally, the literature entitled performance planning seems to be mainly focused on planning and managing the performance of the individual (Harrington, 1998; Bacal, 2003; Rudman, 2003; Armstrong, 2006). Therefore, as the performance planning interacts with all other processes or activities within the performance management process, it appears to be a central activity and also there appears to be a degree of systems thinking evident in the literature as many authors (Deming, 1986; Rummler and Brache, 1995; Spangenberg, 1994) consider managing performance of different systems, such as an organisation, a process and an individual. The literature on performance planning of the organisation is covered in greater depth under strategic planning literature and performance improvement literature. Performance planning is the starting point of the performance management cycle (plan-do-check-act) (Bredrup, 1995; Ainsworth and Smith, 1993; Storey and Sisson, 1993; McAfee and Champagne, 1993; Armstrong, 2000 and 2006), suggesting that there is a gap in the theory concerning performance planning of any system. Therefore, *the objective of this research is to explore the relationship between performance planning and performance within the overall performance management process*.

The focus of the literature search was based on the idea that performance management is seen as the overall process that includes performance planning (Plan), measurement (Check) and improvement (Do/Act). Thus, in order to understand how an organisation's performance may be planned, it was considered important to develop an overall understanding of the literature concerning the performance measurement and management in general and performance planning in particular.

Keyword searches were employed to identify articles published between 1980 and 2010 in specific management databases, such as Emerald Insight and Science Direct. Also, a number of journals were chosen as they attract a large number of papers, very often addressing a broad range of managerial problems from a business process perspective. These include; *Business Process Management Journal, Harvard Business Review, International Journal of Productivity and Performance Management, International Journal of Public Sector Management, Journal of Operations & Production Management, Journal of Service Industry Management, Strategic Management Journal, The TQM Magazine.* Key word searches were performed using terms such as "performance management process", "performance management cycle", "performance planning process", "performance planning for organizations", "performance planning and managing performance" "performance improvement". These search identified many articles, finding that very few instances were specific to performance planning. The challenge was how to draw boundaries around the literature. Consequently, a further survey of the literature was conducted by narrowing down this search to provide sufficient coverage of these areas to include only those articles "performance management", "performance planning for individuals", "strategic planning", "performance improvement" and "performance measurement models and frameworks.

2.2 Performance Management

Armstrong and Baron (2005) define performance management as a process which contributes to the effective management of individuals and teams in order to achieve high levels of organisational performance and to ensure resources that are effectively and efficiently used to accomplish organisational objectives. On the other hand, Procurement Executives' Association (1999) defines performance management as: "*the use of performance measurement information to effect positive change in organisational culture, systems and processes, by helping to set agreed-upon performance goals, allocating and prioritising resources, informing managers to either confirm or change current policy or programme directions to meet those goals, and sharing results of performance in pursuing those goals*". Chan (2004) demonstrates that performance management is considered a vital part of any change process as it measures how effective plans are and how well they are carried out. This significant task performed by performance management is highly appreciated by business managers and accountants involved in any organization's planning and control system. Den Hartog, *et al.* (2004) state that, "*the process of performance management involves managing employee efforts based on measured performance outcomes*". Thus, determining what constitutes good performance and how different aspects of high performance can be measured is critical to true design of an effective performance management process.

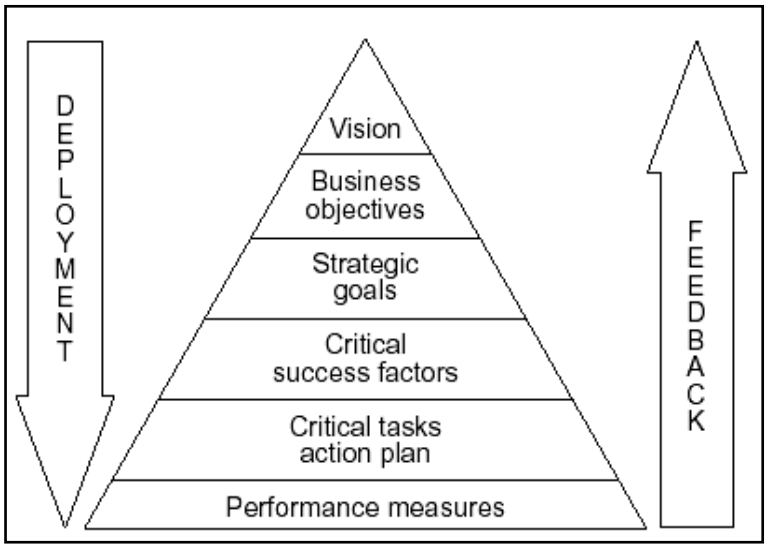
In conclusion, it is argued that performance management is necessary to achieve the strategic objectives and hence success of business organisations (Otley, 2005). Kent (2004) describes that a performance management process comprises of two essential parts, namely, a process to *manage* the organisation's performance against objectives, and a process to *monitor* progress, audit results measured against a plan, and take action if necessary to maintain strategic direction. Lam (2008) states that the other part of the performance management process is a continual progress review through which any off-target performance is identified and highlighted for learning and improvement.

Armstrong (2006) identifies that perfromance management is integrated in two integrations: (1) *vertical integration*, linking or aligning business, team and individual objectives with core competences; and (2) *horizontal integration*, linking different aspects of human resource management, espccially organizational development, human resource develoment, and reward, so as to achieve a coherent approach to the management and development of people. Aguilar (2003) states that: *"the key purpose of performance management is to align the entire organization behind the goal of turning the strategic plan into effective action. Communications should serve to inform employees, to involve them in the process, and ultimately to empower them to implement change and to keep implementing change on an ongoing basis"*.

Guinn (1987) mentions that effective performance management has three basic components: planning, managing and appraising performance. (1) *The Performance Planning* is the process of identifying the desired performance and gaining employees'commitment to perform to those expectations; (2) *Performance managing* is the daily process of working toward the performance expectations established in the planning phase to know if it's on track or exceeding expectations; and (3) *Performance appraisal*, the final step in the performance-management process, provides the opportunity to step back from day-to-day activities, assess performance trends and plan for the future.

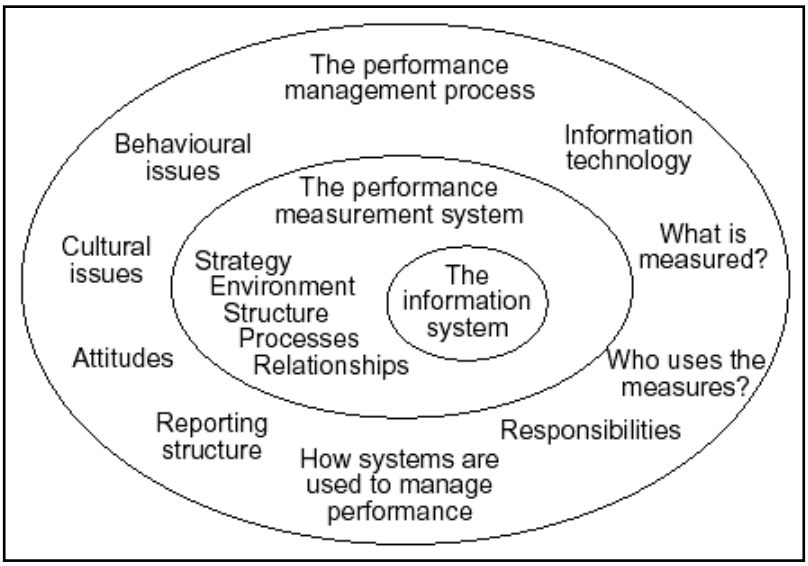
Bititci *et al.* (1997) stated that the performance management process is the process by which the company manages its performance in line with its corporate and functional strategies and objectives. The objective of this process is to provide a proactive closed loop control system, where the corporate and functional strategies are deployed to all business processes, activities, tasks and personnel, and feedback is obtained through the performance measurement system to enable appropriate management decisions (Figure 2.1).

In essence, the performance management process defines how an organization uses various systems to manage its performance (Figure 2.2).



Source: Bititci *et al.* (1997)

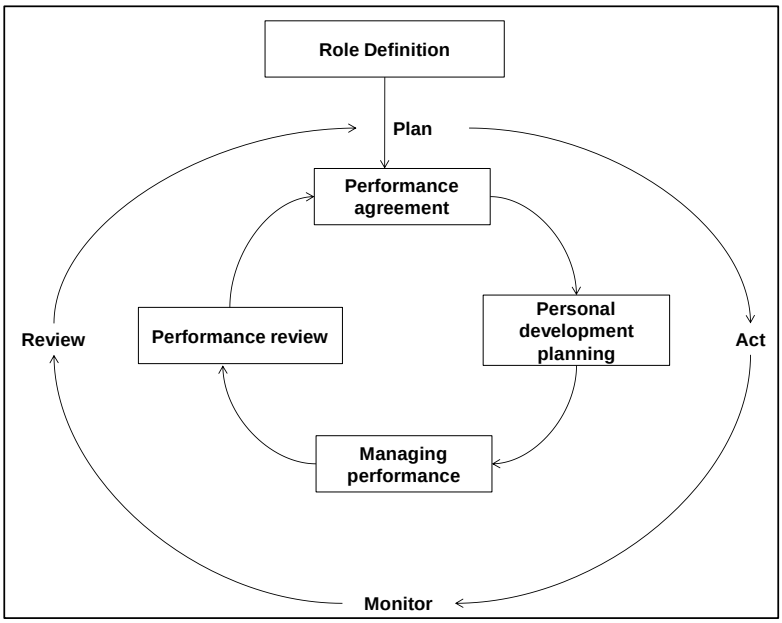
Figure 2.1: The closed loop deployment and feedback system for the performance management process



Source: Bititci *et al.* (1997)

Figure 2.2: The performance management process and the position of the performance measurement system

Armstrong (2000) declares that performance management can be described as a continuous self-renewing cycle, as illustrated in figure (2.3).

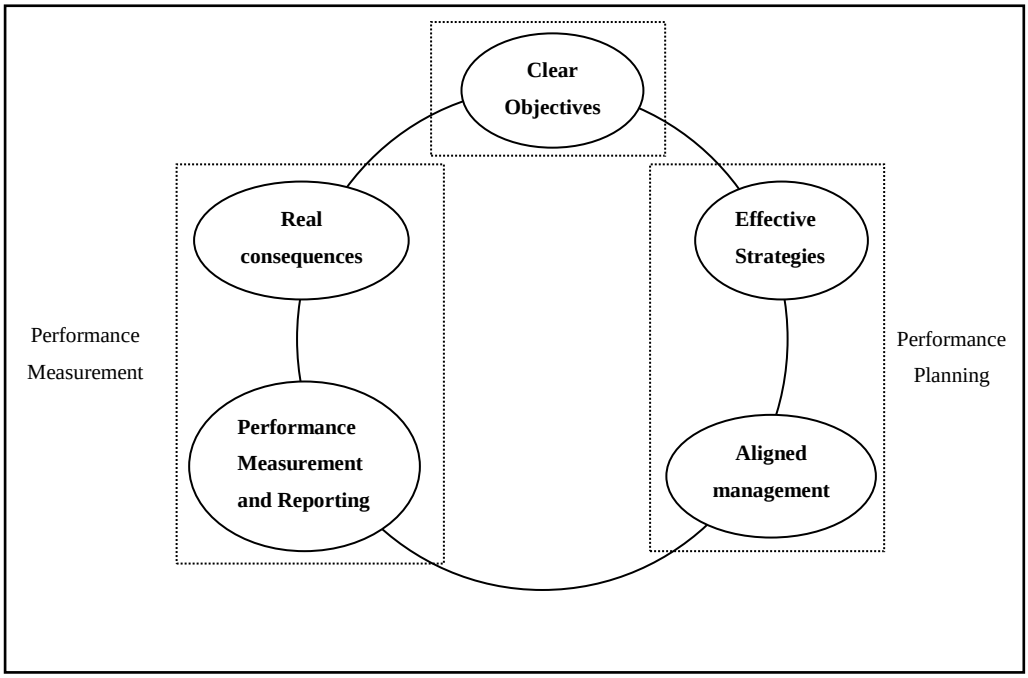


Source: Armstrong (2000)

Figure 2.3: Performance management cycle

Price *et al.* (2002, 2007) suggest that performance planning, evaluation, and rating should be included in the performance management process. They also add that an effective performance management process encompasses six components: organizational goals and objectives (strategic planning), individual's performance and planning, employee performance measurements, performance reviews, ongoing feedback and coaching, and recognition and rewards.

McDavid and Hawthorn (2005) also state that performance management cycle begins and ends with formulating clear objectives for the organisation (as shown in figure 2.4).



Source: Adapted from McDavid and Hawthorn (2005)

Figure 2.4: Performance management cycle

The five stages in the performance management cycle begin and end with formulating clear objectives for organizations. "Effective strategies" includes business planning, and "aligned management systems" includes implementation of planning. "Performance measurement and reporting" includes both planning evaluation and performance measurement, and is expected to contribute to "real consequences" for planning. Finally, objectives are revisited, and the evidence from earlier phases in the cycle is among the inputs that result in "new" or, at least, revised objectives; usually through a strategic planning process which are developed or modified in the light of information put together to present the organization's strengths, weaknesses, opportunities, and threats (McDavid and Hawthorn, 2005).

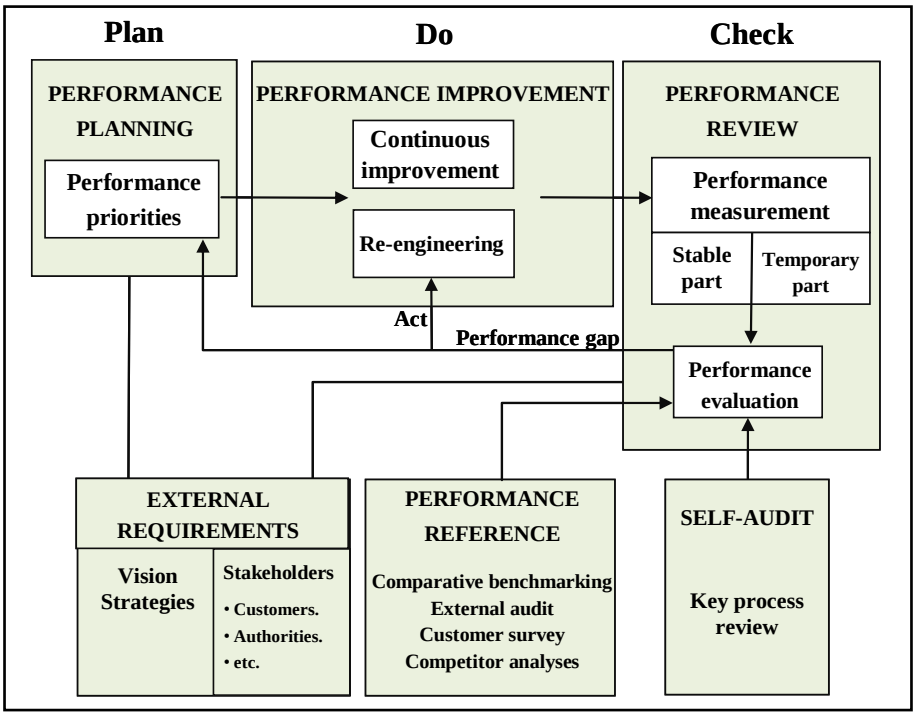
According to Martinez *et al.* (2010) in the general performance management literature, performance management reviews (PMR) are seen as a formal and periodical mechanism to monitor and assess the actual performance of organizations. It is an integral element of a performance management system, which injects action into the performance measurement systems of organizations. They declared that the field of performance management helped to develop the concept of PMR on various organizational levels, from the highest – including executive/strategic level – to the operational and individual level.

Martinez *et al.* (2010) use the term performance management reviews (PMR) to describe the process by which performance is evaluated in the organization. They combines multiple elements of PMR found in diverse bodies of management literature into a coherent framework which is both sufficiently general to encompass various views on performance management reviews and sufficiently specific to permit studying PMR as a stand-alone construct. Martinez *et al.* (2010) applied an adapted version of Pettigrew *et al.* (1989) framework to organize the extracted elements into a coherent model of PMRs. They suggest that PMRs can be conceptualized as comprising three sets of elements – context, process, and content. The process elements of PMRs serve as the immediate levers for managerial intervention as they determine the immediate outcome of the review. They accomplish this task by acting on the content elements, transforming the subject of PMRs into specific outcomes. The scope of the intervention and the ensuing relationship between process and content, however, are constrained by factors in the organization's context (internal factors such as the antecedent conditions, the organizational level on which the review takes place, and organizational culture as well as major factors and trends in the external environment).

According to Williams (2002) performance management model can be distinguished to three main perspectives or types as listed below.

1. Performance management as a system for managing organizational performance

Rogers (1990) identifies the characteristics of such systems as that they are corporate systems which include the following processes as part of an annual integrated cycle of management (1) setting corporate policy and resource aims and guidelines; (2) specifying, within the framework provided by the first step, a detailed set of plans, budgets, objectives, targets and standards of performance; (3) regularly and systematically reviewing the performance of all services. Another illustration of this conception is presented by Bredrup (1995), who sees performance management as comprising three main processes - planning, improving and reviewing. Bredrup's schematic representation of his model (Figure 2.5) shows rather more clearly the organizational perspective. Thus, in this model, performance planning is concerned with such activities as formulating the organization's vision and strategy and defining what is meant by performance. Performance improvement takes a process perspective, that is, including activities such as business process re-engineering, continuous process improvement, benchmarking, and total quality management. Performance review embraces performance measurement and evaluation. The above model incorporates many of the management ideas, philosophies, practices, etc. that have emerged in the 1980s and 1990s.

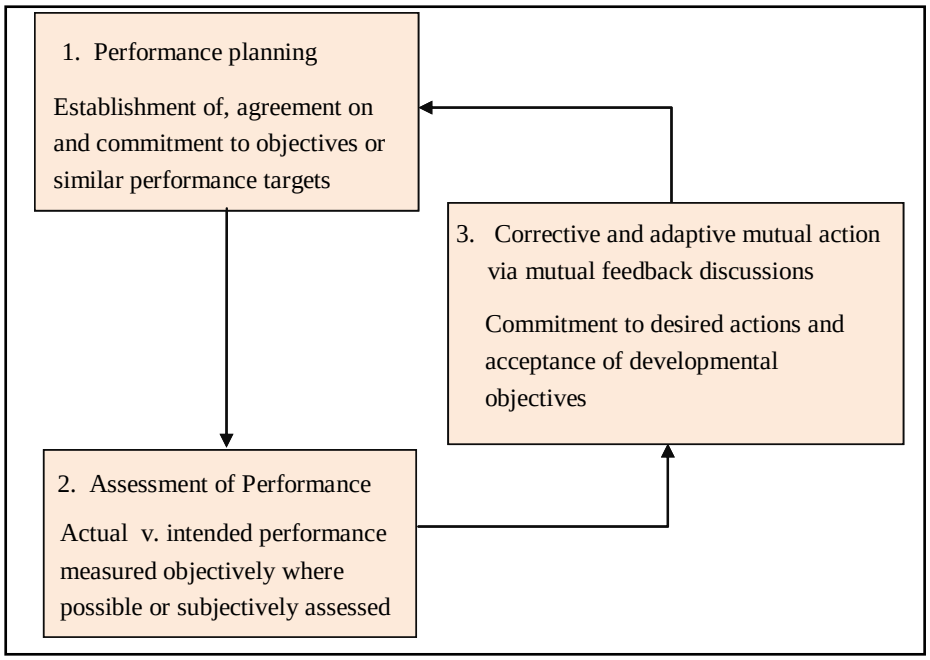


Source: Bredrup (1995)

Figure 2.5: Performance management: planning, improvement and review (plan- do-check-act)

2. Performance management as a system for managing employee performance

Williams (2002) declared that performance management commonly is represented as a cycle. For example, Ainsworth and Smith (1993) have a three-step cycle, as in Figure (2.6). Guinn (1987) also proposes a three-step process: planning, managing and appraising, as shown in the upper half of Table 2.1. Schneier *et al.* (1987) give us five: planning, managing, reviewing, rewarding and developing. Heisler *et al.* (1988) have four elements in their performance management process: directing, energizing, controlling and rewarding (shown in the lower half of Table 2.1). Hartle (1995) also proposes four: planning, managing, reviewing and rewarding. Table (2.1) illustrates the employee focus of this conception of performance management by its reference to behaviours and the motivational language that is used, e.g. providing direction and energizing.



Source: Ainsworth and Smith (1993)

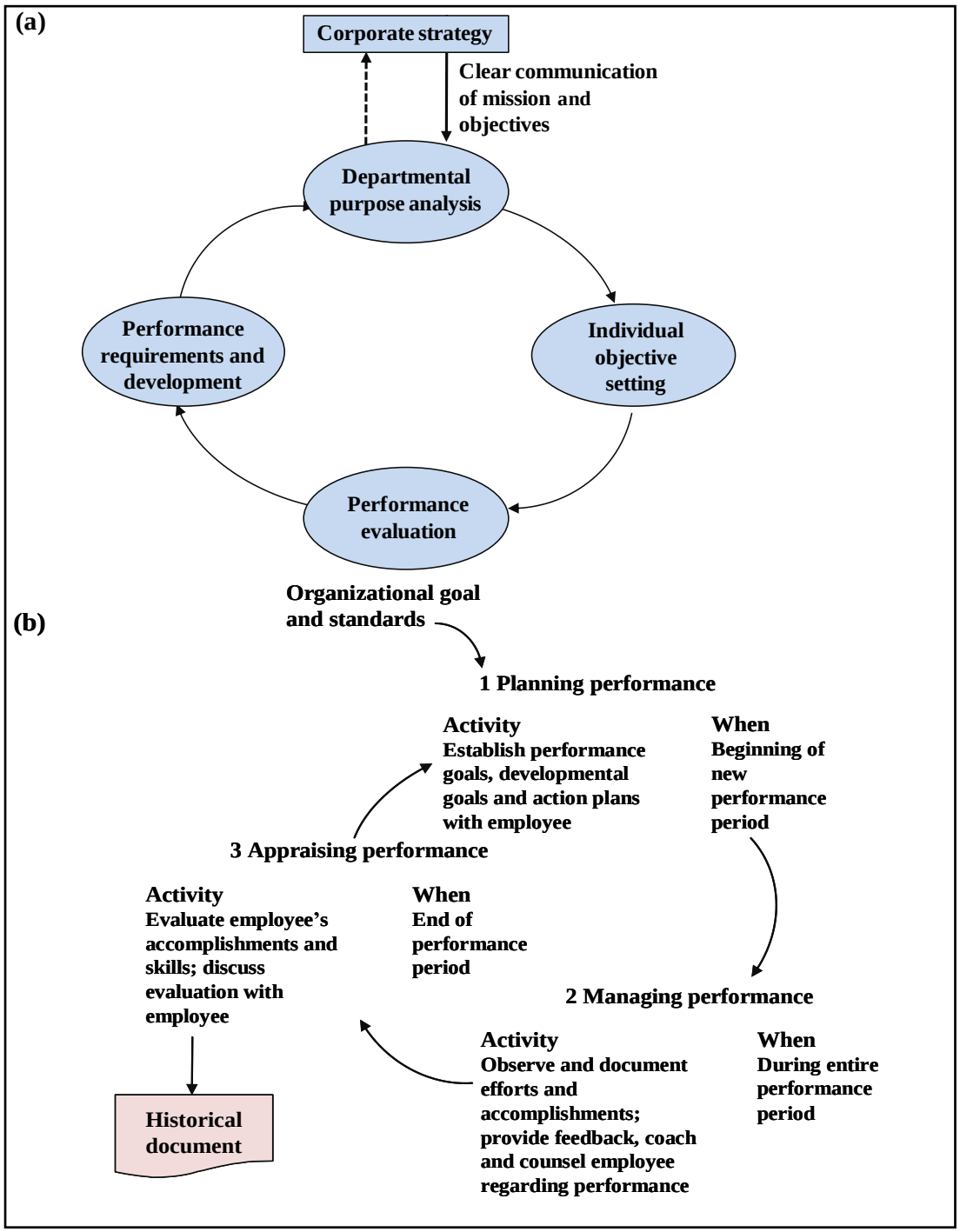
Figure 2.6: Performance management: planning, assessment and feedback

Table 2.1: Elements in the performance management system

Guinn (1987)	**Planning**	**Managing**	**Appraising**		
	Establish performance targets	Monitor behaviour and objectives	Formal meeting of employee and manager		
	Identify job behaviours	Reinforce desired behaviours and objective attainment	Written record		
	Identify basis for measuring performance	Redirect inappropriate behaviour	Focus on future and employee's development		
	Provide direction, initial energizing of behaviour	Provide control	Provide for re-planning and new objective establishment		
Schneier *et al.* (1987)	**Planning**	**Managing**	**Reviewing**	**Rewarding**	**Developing**
Heisler *et al.* (1988)	**Directing**	**Managing**	**Controlling**	**Rewarding**	
	Key result areas	Set goals	Monitor	Evaluate	
	Performance indicators	Establish behavioural expectations	Provide feedback	Reinforce	
	Required behaviours		Redirect		
			Develop		
Hartle (1995)	**Planning**	**Managing**	**Reviewing**	**Rewarding**	

Source*:* Adapted from Guinn (1987)

Besides, there are the performance management cycles presented by McAfee and Champagne (1993) and Storey and Sisson (1993) – as shown in Figure (2.7).



Source: Story and Sisson (1993), McAfee and Champagne (1993)

Figure 2.7: performance management cycles

Williams (2002) stated that the common idea in much of this literature is the idea that manager and employees should have a shared view of what is expected of the employee; involvement and participation of a direct kind are typically advocated as the means by which this shared view may be arrived at.

3. Performance management as a system for integrating the management of organizational and employee performance

This model may be regarded as a combination of the first two models, although there are variations on the basic theme. Performance management supports a company's or organization's overall business goals by linking the work of each individual employee or manager to the overall mission of the work unit (Costello, 1994). Therefore, it is argued that the central aim of performance management is to develop the potential of staff, improve their performance and, through linking an employee's individual objectives to business strategies, improve the company's performance (Incomes Data Services, 1992) since, performance management is about directing and supporting employees to work as effectively and efficiently as possible in line with the needs of the organization (Walters, 1995).

Thus, Rummler and Brache (1995), from a systems point of view, specify three interdependent levels of performance: organization, process and job/performer. Spangenberg (1994) presents one of the most comprehensive integrated models and identifies three levels of performance: organization, process/function and team/individual. At each level he predicts a five-step annual performance cycle, as illustrated in Table 2.2.

Table 2.2: Spangenberg's integrated model of performance

Organization	Process / function	Team / Individual
1. PERFORMANCE PLANNING		
▪ Vision ▪ Mission ▪ Strategy ▪ Organizational goals set and communicated	▪ Goals for key processes linked to organizational and customer needs.	▪ Team mission, goals, values and performance strategies defined. ▪ Individual goals, responsibilities, and work planning aligned with process/ function goals.
2. DESIGN		
▪ Organization design ensures structure supports strategy	▪ Process design facilities efficient goal achievement.	▪ Teams are formed to achieve process/function goals. ▪ Job design ensures process requirements reflected in jobs, jobs logically constructed in ergonomically sound environment.
3. MANAGING PERFORMANCE (AND IMPROVEMENT)		
▪ Continual organization development and change efforts. ▪ Functional goals (in support of organizational goals) managed, reviewed and adapted quarterly. ▪ Sufficient resources allocated. ▪ Interfaces between functions managed.	▪ Appropriate sub-goals set; process performance managed and regularly reviewed. ▪ Sufficient resources allocated. ▪ Interfaces between process steps managed.	▪ Active team-building efforts, feedback, co-ordination and adjustment. ▪ Developing individual understanding and skills, providing feedback. ▪ Sufficient resources allocated.
4. REVIEWING PERFORMANCE		
▪ Annual review, input into strategic planning.	▪ Annual review.	▪ Annual review.
5 REWARDING PERFORMANCE		
▪ Financial performance of organization.	▪ Function rewards commensurate with value of organizational performance and function contribution.	▪ Rewards commensurate with value of organization performance, and for team – function and team contribution for individual – function/team performance and individual contribution.

Source: Spangenberg (1994)

2.2.1 Performance Management – Conclusion

Based on the literature, Performance Management is seen as the overall process that includes performance planning (Plan), measurement (Check) and improvement (Do/Act). Performance management cycle begins and ends with formulating clear objectives for the organisation (McDavid and Hawthorn, 2005). Therefore, performance management is a managerial business process which consists of performance planning and strategic planning (Otley, 2005, 2008; Kent, 2004; Price *et al.*, 2002, 2007) in order to make the best use of company's resources (Spangenberg, 1994) by coordinating the efforts of every member of the organization (Den Hartog, *et al.*, 2004) to achieve the predetermined goals (Heisler *et al.*, 1988) through quantifying these goals and objectives using performance measurements which enables the performance management process to function effectively and efficiently (Armstrong and Baron, 2005). Accordingly, based on that definition from literature-performance planning is part from the performance management process that is essential for a complete performance management process.

2.3 Performance Measurement

Enterprises need to fix strategies for success, establish goals, execute activities by making proper decisions and monitor their resulting states as the business processes move towards their goals (Taticchi and Balachandran, 2008). Thus, performance measurement is seen as a critical activity for management (Amaratunga *et al.*, 2001; Leandri, 2001; Neely *et al.*, 1997; White, 1996; Wholey and Hatry, 1992) in both for-profit/business sector (see for example McAdam and Bailie, 2002; Ittner and Larcker, 2003) and not-for-profit/public sector (Atkinson and McCrindell, 1997; Behn, 2003). Neely *et al.* (1995) describe performance measurements as *"the process of quantifying action, where measurement is the process of quantification and action correlates with performance"*.

Thus Tangen (2003) states the following definitions: a performance measure is "*a metric used to quantify the efficiency and/or effectiveness of an action*" and performance measurement system (PMS) is "*the set of metrics used to quantify the efficiency and effectiveness of action*".

Parker (2000) demonstrates that performance measurement is a tool helping in making judgments and taking decisions. Furthermore, Parker explains that carrying out performance measurement vary from an organisation to another for the following reasons: (1) Identify success; (2) Identify whether organizations are meeting customer requirements; i.e. providing the services/products that their customers require; (3) Help organizations understand their processes to confirm what they know or reveal what they do not know; (4) Identify where problems, bottlenecks, waste…etc., exist and where improvements are necessary; (5) Ensure decisions are based on fact, not on supposition, emotion or faith or intuition; (6) Show if the improvements planned actually happen. Parker also defines the fundamentals of performance measurement as: performance measures need to be aligned with the organizational strategy; sub-unit measures must aggregate into organization wide measures; there must be commitment to the measurement regime; measurement must have an effect on performance; and measures must be reliable. Dyson (2000) and McAdam and Bailie (2002) adds "companies should keep their strategies parallel to their performance measurement".

The above literature clearly shows that the development of performance measurement in management has been influenced by the push to improve quality and service, in addition to meeting cost parameters. Thus, it has been acknowledged by senior management in many organizations that a lack of appropriate performance measurement can act as a barrier to change and improvement (Amaratunga and Baldry, 2002).

The importance of adopting a set of suitable performance measures by a company has long been recognized and is well documented (Kaplan and Norton, 1992; Sinclair and Zairi, 1995; Neely, 1999). Performance measures are defined by Hronec (1993) as "*vital signs of the organisation which quantify how well the activities within a process or the outputs of a process achieve a specific goal*". He further explains that a performance system is a "*tool for balancing multiple measures (cost, quality and time) across multiple levels (organisation processes and people) in supporting the need for integration*". Ghalayini and Noble (1996) declare that "*the measures are used to evaluate, control and improve organisational processes*". Aguilar (2003) indicates that performance measures must be an integral part of the organization's culture and reward system.

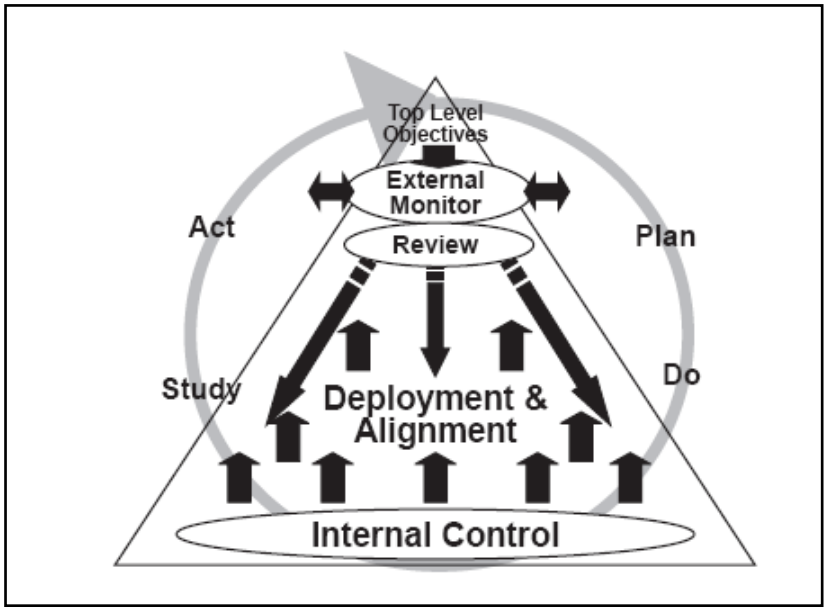
In the late 1980s and 1990s, many researchers and practitioners expressed a general dissatisfaction with traditional performance measurement systems developed from costing and accounting systems identified their shortcomings and argued for a change (Johnson and Kaplan, 1987; Fry and Cox, 1989; Kaplan and Norton, 1992, 1996, 2001b; Yeniyurt, 2003; Thorpe, 2004).

The need to adopt a balanced range of financial and non-financial performance measures is now widely accepted (Kumar *et al.*, 2008; Pitt and Tucker, 2008).

Therefore, the summary of the views advanced in the debate on traditional performance measurement is as follows:

- Criticism of traditional management control (Johnson and Kaplan, 1987; Fry and Cox, 1989; Kaplan and Norton, 1992, 1996, 2001b; Letza, 1996).
- Need to represent non-financial measures (Bititci, 1994; Epstein and Manzoni, 2004; Kumar *et al.*, 2008; Pitt and Tucker, 2008).
- Non-financial performance measures negatively affect the business performance (Ittner and Larcker, 2003; Banker *et al.*, 2000).
- Measures should be updated to reflect the ongoing transformation in the business environment (Ghalayini and Noble, 1996; Dixon *et al.*, 1990; Wisner and Fawcett, 1991).

The debate and the criticism on traditional performance measurement show that financial performance measures are not a solution to the measurement of business performance. However, most organisations tend to benchmark based on "hard" rather than "soft" data (Cassell *et al.*, 2001) ignoring non-financial measures such as quality, market share, customer satisfaction, human resources, innovation and learning (Geanuracos, 1994). To achieve balance between the various performance measures that any organization can have to attain consistency in the measurement and analysis process, performance measurement models and frameworks have been developed (Keegan *et al.*, 1989; Dixon *et al.*, 1990, 2008; Fitzgerald *et al.*, 1991, 2008; Kaplan and Norton, 1992; Cross and Lynch, 1992; Brown, 1996; Kennerley and Neely, 2002; Tangen, 2005; Neely *et al.*, 2001, 2005; Najmi *et al.*, 2005). Also, the performance measurement system characteristics have to be put into consideration (Wilson, 2000; Bititci *et al.*, 2000). In addition Bititci *et al.* (2000) declared that a dynamic performance measurement system should have different systems as depicted in Figure (2.8) in order to apply it to the whole business as well as to each business unit or business process within the business.



Source: Bititci *et al.* (2000)

Figure 2.8: The dynamic performance measurement systems model

2.3.1 Performance Measurement-Conclusion

Parker (2000) stated that organizations should identify customer requirements and where problems, bottlenecks, waste…etc., exist and where improvements are necessary. Also, companies should keep their strategies parallel to their performance measurement (Dyson, 2000; McAdam and Bailie, 2002). Therefore, performance measurement is used as a tool to help organizations in making judgments and taking decisions (Parker, 2000) through quantifying how well the system achieves the desired goals along with identifying customer requirements and where problems, bottlenecks, waste…etc., exist and where improvements are necessary (Parker, 2000). Hence, it enables performance planning to facilitate the communication of performance plans and targets across the organisation (Armstrong, 2006). The before mentioned quotes accordingly help in building the performance planning process.

2.4 Performance Planning: An individual/employee perspective

Performance planning is the starting point and the bedrock of effective performance management system and it is essential in laying the groundwork for effective reviews later on (Grote and Grote, 2002; Bacal, 2003). They add that performance planning is the process of communication between manager and employee so both are clear on what the employee is expected to do or achieve in the coming year and how success is to be determined.

According to Rudman (2003), performance planning and review process is a useful tool for clarifying and aligning individual, team and organizational goals. According to Armstrong (2006), the performance planning is part of the performance management sequence is primarily a joint exploration of what individuals are expected to do and know, and how they are expected to behave to meet the requirements of their role and develop their skills and capabilities.

According to Harrington (1998), performance planning addresses the immediate job and its responsibilities. He suggests applying the following principles: Rules, Measurements, and Rewards. He adds that the problem with performance planning evaluation and reward processes is that most organizations do a very poor job of implementing the concept.

And according to Neely and Jarrar (2004), the performance planning value chain (PPVC) provides a systemic process for using data to enhance decision-making, bringing together a vast array of tools to extract value from data and focus efforts on what will add real value to the organisation. It aims to provide a process for the transformation of data and also provide a process that coherently brings together a combination of skills for analysing and interpreting complex information from a variety of sources and the ability to present complex technical information to non-specialists, and an ability to add insights. They add that the PPVC is based on the simple premise that organisational data, and its analysis, are the lifeblood for value adding and thus, should be viewed as a critical input to organisational strategy delivery and improvement.

2.4.1 Performance Planning-Conclusion

Therefore, performance planning is a process within the overall process of performance management. As the performance planning interacts with all other processes or activities within the performance management process, it appears to be a central activity. However, so far there seems to be little literature exploring the performance planning process in detail. Also, there appears to be a degree of systems thinking (Deming, 1986; Rummler and Brache, 1995; Spangenberg, 1994) evident in the literature as many authors consider managing performance of different systems, such as an organisation, a process and an individual.

2.5 Strategic Planning

Strategic planning can be considered either from content or process perspective (O'Regan and Ghobadion, 2002). *Content* is concerned with certain elements within the strategic plan that differ from one firm to another. On the other hand, *process* is concerned with the mechanisms adopted to develop the strategic plan and how it is further deployed. Grant (2003) illustrates that empirical research in strategic planning systems has two focal points: the impact of strategic planning on firm performance and its role in strategic decision making.

Strategic planning is widely accepted as sound management practice. Organization theorists, however, have observed that organizations appear, as well, to pursue behavioural goals, which may or may not coincide with statements protecting the rational purposes of the organization (McDavid and Hawthorn, 2005).

Tapinos *et al.* (2005) define strategic planning as *"the set of processes undertaken in order to develop a range of strategies that will contribute to achieving the organizational direction"*. Strategic planning has a variety of expressions such as: *"long range planning"*, *"corporate planning",* and *"strategic management"* (Tsiakkiros and Pashiardis, 2002; Grant, 2003). A very inclusive definition by Crittenden and Crittenden (2000) is that *"strategic planning attempts to systematise the processes that enable an organization to attain its goals and objectives".* According to Price *et al.* (2002, 2007), the steps of strategic planning are: mission (reason for being), vision (desired future), values (guiding principles), goals (general intentions), and objectives (specific outcome). Therefore, strategic planning is a mode of using each day to get where you want to be and keeping your eyes on what the world needs now.

Greenly (1994) suggests that companies do need strategic planning for two reasons: First, strategic planning improves companies' performance. Strategic planning theory is based on planning the company's mission and objectives including the company's performance, in addition to implementing the strategies required to achieve such objectives and guaranteeing that these objectives are met.

Second, strategic planning aims at enhancing the management effectiveness in an organization. This may affect performance indirectly, which gives managers a feeling of confidence and control.

Dyson (2000) states that combining performance measurement and strategy has been a debated issue in literature. Yet, the impact that performance measurement can have on the design, development and implementation of strategic planning has not been fully discussed. A number of studies deal with new measurement frameworks or give advice as to their implementation (Tapinos *et al.*, 2005). Franco and Bourne (2003) explain that recently an idea about how organizations should manage with measures and how they can get what they need from the collected data is presented. Furthermore, the literatures have also discussed what impact the organizational characteristics and the nature of the sector to which the organization belongs may have on strategic planning (Stone house and Pemberton, 2002; Grant, 2003).

To monitor adherence to corporate strategy at all levels of an organization's operations, performance measures are essential. This is because both performance measures and strategic plans help any organizations in a multiplicity of ways; i.e., enhancing the strategic plan, analyzing the achievement of both the departments' and the corporate objectives, following up operations and specifying those that have exceeded the boundaries of acceptable parameters, mapping progress towards goals as well as evaluating both employees and suppliers (Hass *et al.*, 2005).

According to Parker (2000), performance measures need to be aligned with the organisation's strategy. The beginning is to determine what to measure, often one of the most difficult tasks. It would be wasteful of resources to prepare measures that cover all aspects of an organization's activity, but *measures should be selected only to focus on what is actually significant*. The criteria for this selection are the organizational vision, mission and strategy. Consequently, there should be regular review of the performance system to make sure it is in line with strategic planning processes.

Moreover, it is often argued that within the context of increasing organisational dynamics and complexities, the logical approach is limiting because it is mainly centred on the present and past successes though it has been clear that, what has succeeded in the past and what succeeds at the present may not be appropriate for the future. So Scenario planning may provide a suitable tool to develop a forward-looking mindset (Pollard and Hotho, 2006). Scenario planning is *"a generative approach to strategy that assumes a high degree of unpredictability in the business world"* (Pollard and Hotho, 2006). Scenarios deal with the core problems of a given future study (Coates, 1996). This is because individual trends do not automatically create useful pictures of the future applicable to planning. In addition to some possible future states, scenarios may describe the transition from a present to a future state (Coates, 1996). They can also create alternative histories, describe histories that did not take place, or that would have taken place if a certain factor had been altered (Inayatullah, 1996).

Thus, it has become clear that the purpose is not just to construct scenarios but to inform decision makers and influence, as well as enhance, decision making. In this context, it has been suggested (Fahey and Randall, 1997) that the purpose of scenario building is to understand and identify contingent decisions by exploring what an organization might do if certain circumstances arise, also, to see what possible futures might look like, how they might come about, and why this might happen. Consequently, in this context, scenario building can create a learning organization. Drew (2006) identifies that every firm will wish to customize the process to its own situation and needs, and that culture has to apply these steps of scenario planning: define scope of planning (time scales and stakeholders), identify focal issues (strategic issues and research needs), identify key driving forces (politics/economy/society/technology/competitors), classify / rank uncertainties (short/long term and critical events), develop scenario framework (story telling), and test for consistency and capability for planning. Then, the organisational or corporate end state is improved corporate strategy, operational effectiveness, and a clearer understanding of core competencies required to get the organisation where it wants to go (Hannabuss, 2001).

2.5.1 Strategic Planning-Conclusion

Based on strategic planning literature, certain studies indicate the significant benefits of planning and others report no quantifiable benefits (Rhyne, 1986), and Whitehead and Gup (1985) claim that planners may perform worse on some measures when compared with the non-planning counterparts. So we need to understand the relationship between performance planning and performance.

Crittenden and Crittenden (2000) stated that *strategic planning attempts to systematise the processes that enable an organization to attain its goals and objectives*. Therefore, any organization has to start with its mission and goals/objectives which are a part of strategic planning (the steps of strategic planning are mission, vision, values, goals, and objectives), it consider the input to performance planning.

Fahey and Randall (1997) stated that the purpose of scenario building is to see what possible futures might look like, how they might come about, and why this might happen. And Drew (2006) identifies that every firm has to identify key driving forces and classify/rank uncertainties. Therefore, Scenario planning is a process that enables decision makers to detect and create integrated images of how the future might evolve. Thus, it is useful in assisting organizations in selecting the right decision and setting priorities ahead to avoid further mistakes. *It helps organizational performance as a whole and helps in performance planning process* specifically as it establishes an overall vision of the future and aids in making decisions that influence the overall outcome of the organization. It also helps organizations focus their resources, time and effort (classify/rank uncertainties) on a specific direction to provide competitive advantage and develop the overall process in the organization on a daily basis. The before mentioned quotes accordingly help in building the performance planning process.

2.6 Emerging thinking on Performance measurement

All the above is certainly the traditional thinking in the performance management literature. However, there is a new view emerging which seems to contradict this more traditional view since some authors argue that performance measurement and management is largely associated with command and control style of management and that in the emerging knowledge base employees where people are key resources there is a need for new ways of management.

Emerging thinking on performance measurement is that it is not obviously suitable and beneficial for all cases and in some cases it has negative impact as in professional, knowledge based work environments. Professional employees do not like *command and control;* they need less informal approach in order to achieve higher performance (Seddon, 2005). Evidence from *Google* and *Apple* that performance improved over the years by focusing on innovation not *command and control* (Khanna, 2008; Loizos and Papachroni, 2009).

On the other hand in processes oriented companies, employees used to operating with measures and targets and working with command and control culture which is opposite of participative and consultative style, therefore the organization culture have direct impact on performance (Bititci *et al.*, 2004, 2006). In addition to centralized management style which negatively affect the performance (Johnson and Broms, 2000).

It therefore appears that too much emphasis on performance management is not helpful especially checking or monitoring and that what seems to be appropriate is that people appreciate guidance in objectives and direction without being told how to achieve this or having systems checking on their performance. They are rather told what needs to be achieved so that they can go and do it/ deliver it their own way.

2.7 Performance Improvement Techniques

The global market is very competitive, and to survive, organizations need to produce products and services of high quality to achieve customer satisfaction and loyalty to stimulate top-line business growth. In an attempt to manage this change, industry leaders have embraced several performance improvement techniques like six sigma, lean, and theory of constraints. Table 2.3 summarizes the commonly used Performance Improvement Techniques (Six Sigma, lean, theory of constraints) describing some similarities and differences between the concepts regarding: origin, theory, process view, methodologies, benefits and criticism.

Performance Improvement Techniques what all they tempt to do is: Look to the process, measure performance, identify improvements to be made either by design or by default, and what are the key things that constraints performance (Arnheiter and Maleyeff, 2005; Antony and Banuelas, 2002; Antony, 2004, 2006; Conner, 2004; Goh and Xie, 2004; Kumar *et al.*, 2006; Goldratt, 1990; Motwani *et al.*, 1996; Rahman, 1998; Siha, 1999; Victoria *et al.*, 2003; Mahesh *et al.*, 2005; Achanga, 2006; Andersson *et al.*, 2006; Nash *et al.*, 2006, Suzuki, 2004).

Looking to performance improvement thinking, Lean relies on the basics of the Deming cycle which known as the PDCA cycle [*Plan*-Do-Check-Act] *planning* is the first step of the cycle (Lahti and Peterson, 2005; Nash *et al.*, 2006). In contrast, Six Sigma used the DMAIC (define-measure-*analyze*-*improve*-control) to achieve process improvement (Kumar *et al.*, 2006). This has planning through *analyzing* what are my constraints and what are the things should happen to *improvement*.

The idea of a continuous cycle of improvement inherent in both of these models has proven to avoid false starts while enhancing the chance that improvement will be sustainable (Conner, 2004).

Table 2.3: Similarities and differences between Six Sigma, Lean, and Theory of Constraints.

Concepts	Six sigma	Lean	TOC
Origin	The quality evolution in Japan and Motorola (1988).	The quality evolution in Japan and Toyota (1950).	Developed by Goldratt (1990).
Theory	No defects.	Elimination of waste.	Managing organizations by recognizing system restrictions.
Process view	Reduces variations and improve processes.	Improves flow in processes.	Understands the underlying cause-effect relationships.
Methodologies	Define, measure, analyze, improve (or design), control (or verify).	Understand customer value, value stream, analysis, flow, pull, perfection.	Identify the system constraint, decide how to exploit the system constraint, subordinate the non-constraint, and elevate the systems constraint. If a constraint has been "broken" in the above steps, then return to first step.
Benefits	Saves money, achieves business goalsandimprovesfinancial performance.	Reduces lead time, reduces inventory, increasesproductivity,customer satisfaction,andinteractionwith employees.	Emphasizes the importance of defining and understanding the global goal of the organization and recognizes the constraint on any system that restricts the higher performance level.
Criticism	Does not involve everybody, does not improve customer satisfaction, and does not have a system view.	Reduces flexibility, causes congestion in the supply chain, not applicable in all industries.	Hard policies and measurements, TOC experts need to be in site, localization of reward system.
References	Antony and Banuelas, 2002; Goh and Xie, 2004; Antony, 2004, 2006; Mahesh *et al.*, 2005; Kumar *et al.*, 2008	Suzuki, 2004; Conner, 2004 ; Arnheiter and Maleyeff, 2005; Achanga, 2006; Nash *et al.*, 2006; Andersson *et al.*, 2006	Goldratt (1990); Siha, 1999; Motwani *et al.*, 1996; Rahman, 1998; Victoria *et al.*, 2003

2.7.1 Performance Improvement Techniques -Conclusion

Looking from the process/system perspective, performance planning process depends on identifying the source of constraints, wastes, and variations; which is reflected in TOC, lean, and Six Sigma. Thus, performance can be improved by considering TOC, lean, and six sigma. Therefore, the before mentioned quotes accordingly help in building the performance planning process.

2.8 Conclusions and towards a Framework for Performance Planning

As demonstrated before, performance planning is the starting point of the performance management cycle (plan-do-check-act) and performance management is seen as the overall process that includes performance planning (Plan), measurement (Check) and improvement (Do/Act). Generally, the literature entitled performance planning seems to be mainly focused on planning and managing the performance of the individual but the literature on performance planning of the organisation is covered in greeted depth under strategic planning literature and performance improvement literature. Therefore, the key features of a performance planning as a system is that target performance level is known, accordingly all the above mentioned literature affect the performance planning process [Performance Management (Guinn, 1987),(McDavid and Hawthorn, 2005); Performance Measurement (Dyson, 2000; Parker, 2000; McAdam and Bailie, 2002); TOC (Motwani et al., 1996; Siha, 1999); Strategic Planning (Crittenden and Crittenden, 2000); Scenario Planning (Fahey and Randall, 1997; Drew, 2006). This leads the researcher to the following framework for performance planning as shown in Table (2.4) and Figure (2.9).

Therefore key definitions based on amalgamation of previous definitions that underpin this research include:

- *Performance management* - a managerial business process which consists of performance planning and strategic planning (Otley, 2005; Kent, 2004; Price *et al.*, 2002, 2007) in order to make the best use of company's resources (Spangenberg, 1994) by coordinating the efforts of every member of the organization (Den Hartog *et al.*, 2004) to achieve the predetermined goals (Heisler *et al.*, 1988) through quantifying these goals and objectives using performance measurements which enables the performance management process to function effectively and efficiently (Armstrong and Baron, 2005).
- *Performance measurement* is as a tool used to help the organizations in making judgments and taking decisions (Parker, 2000) through quantifying how well the system achieves the desired goals along with identifying customer requirements and where problems, bottlenecks, waste…etc., exist and where improvements are necessary (Parker, 2000).
- *Performance planning* is an approach that can be used to achieve the desired performance of a system by eliminating the constraints that affect the maximum performance of a system can achieve; through setting system goals, identifying performance gap, and identifying performance constraints.

Table 2.4: Performance Planning Specifications

System perspective	Specifications	References
Defining performance criteria of a system	The organization should keep their strategies parallel to their performance measurement	Dyson (2000); McAdam and Bailie (2002)
	The organization should have clear objectives	McDavid and Hawthorn (2005)
	The organization should use strategic planning that attempts to systematise the processes that enable an organization to attain its goals and objectives	Crittenden and Crittenden (2000)
Understanding Current Performance	The organization should perform operations which meet the needs of the customers	Parker (2000)
Identifying performance gap	The organization identify where problems bottlenecks, waste, etc., exist and where improvements are necessary	Parker (2000)
Identifying Constraints (changeable / unchangeable)	Identify key driving forces (Politics/economy/society/technology; Industry/competitors);	Drew (2006)
	The organization should recognize the constraint on any system that restricts the maximum performance level that the system can obtain in relation to its goal	Siha (1999)
	The organization should classify/rank uncertainties (Short/long term; Critical events)	Drew (2006)
Predicting future performance	The organization should suggest what possible futures might look like, how they might come about, and why this might happen.	Fahey and Randall (1997)
Planning Performance	The organization should identify the desired performance to perform its expectations	Guinn (1987)

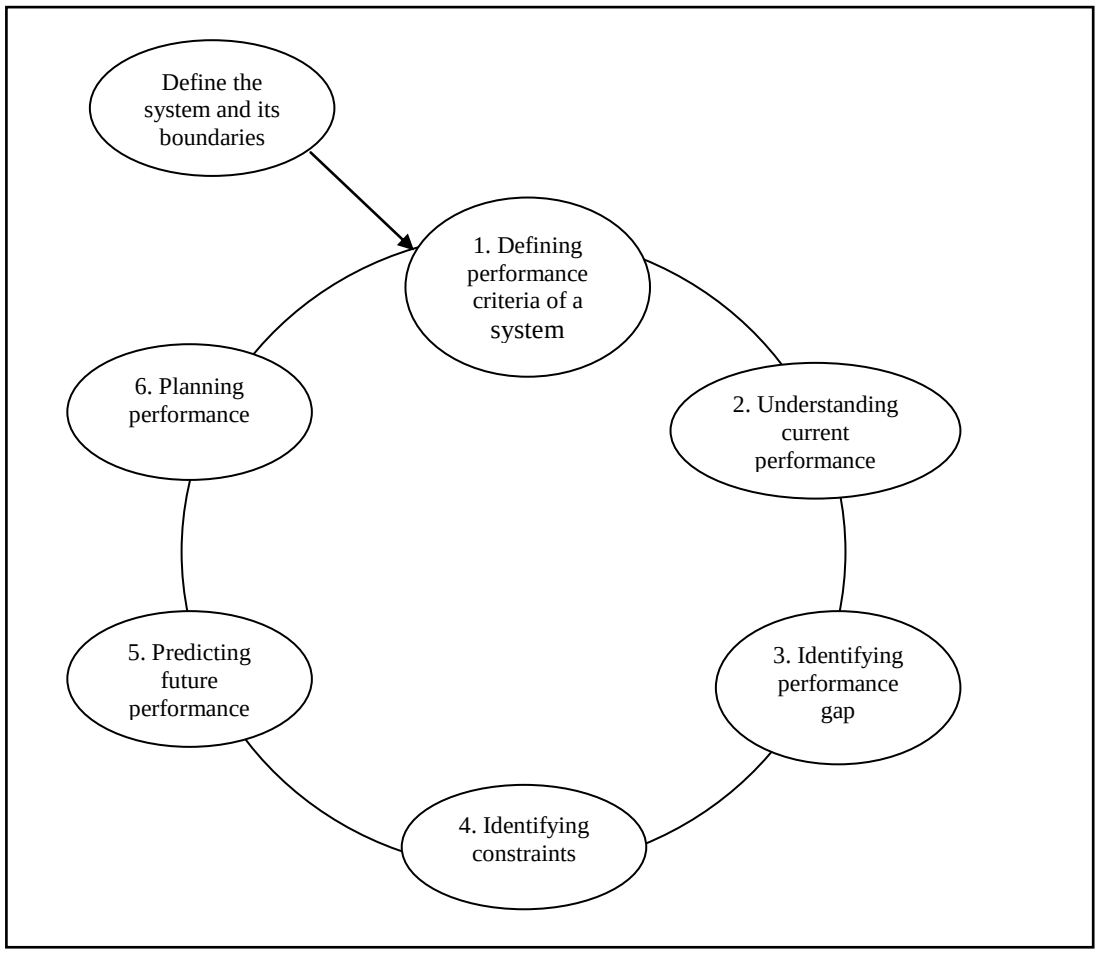


Figure 2.9: Performance Planning Framework

Then the researcher wanted to make sure of if the existing Performance Management or Measurement models fulfil the criteria stipulated in the above framework. Thus, the first research question is.

Research Question (1): **How does the performance planning framework differ from the existing performance measurement models and frameworks?**

2.9 Performance planning framework vs. existing performance measurement models and frameworks

The terms frameworks and models are often used interchangeably. Rouse and Putterill (2003) consider *frameworks* to be useful ways of thinking about systems for modelling purposes since they are not well-developed models but serve as a starting point for model building. In addition, Rouse and Putterill (2003) define *models* as *"representations of systems that attempt to explain or predict the behaviour of components of interest"*. A quick glance at the literature identifies the following performance measurement models and frameworks:

- Business Excellence Model founded in 1988 that designed and launched the European Foundation for Quality Management and that consists of two subsets of performance factors; Enablers and Results (EFQM, 2009).
- Keegan *et al.* (1989) presented the "Performance Measurement Matrix Framework" which categorizes measures as being "financial" or "non- financial" as well as "internal" or "external".
- Dixon *et al.* (1990) used a questionnaire technique on a performance measurement (PMQ) to define the weaknesses and strengths of the measurement system.
- Fitzgerald *et al.* (1991) distinguished between the "Results and Determinants" to provide a more representative reflection of the true complexity of an organisation.
- Kaplan and Norton (1992) distinguished between the four perspectives of their "Balanced Scorecard".
- Cross and Lynch (1992) presented the "Performance Pyramid" as to link an organisation's strategy with its operations by translating objectives from the top down (based on customer priorities) and measures from the bottom up.
- Brown (1996) highlighted the difference between input, process, output and outcome measures.

- Bititci *et al.* (1997) designed an "Integrated Performance Measurement System" which visualizes that a correctly structured and designed performance measurement system would provide the basis for a rigorous and effective performance management system that could be used as a management tool by strategic, tactical and operational levels of management.
- Neely *et al.* (2001) designed "Performance Prism Framework" to be highly flexible so that it can provide a broad or narrow focus.
- Tangen (2005) presented the "Triple-P model" which is based on the terminology descriptions of performance, productivity, profitability, efficiency and effectiveness.
- Najmi *et al.* (2005) declared that "Performance Measurement System Review Framework" aims to facilitate the reviewing of business performance and performance measurement systems at the same time as well as taking into account several key characteristics of PMS design.

An initial study of these models reveals that only six of these take cognisance of the performance planning framework. Table (2.5) illustrates the level of conformance of each one of these six models against the specifications stipulated in the framework developed in Table (2.4).

Table 2.5: Theoretical comparison for performance planning between different frameworks and models of performance measurement

System perspective	**Specifications**	Performance Measurement Matrix Framework	Performance Prism Framework	Performance Measurement System Review Framework	Balanced Scorecard Model	Performance Pyramid Model	Business Excellence Model
Defining performance criteria of a system	**The organization should keep their strategies parallel to their performance measurement**	✓ According to Neely (2007) that the inherent flexibility of the Performance Measurement Matrix Framework enables organization to accommodate any measures of performance and integrate different financial and non-financial performance measures.	✓ The Performance Prism Framework is aligning the organization's process with its strategies and allow the managers to track whether or not the right capabilities required to operate these process are in place (Neely, 2007).	✓ The Performance Measurement System Review Framework proposes that performance measures should be derived from the company's strategy (Najmi *et al.*, 2005).	✓ BSC translates a company's vision and strategy into a coherent set of performance measures Kaplan and Norton (1992, 1996, 2001a)	✓ The Performance Pyramid Model ties together the hierarchical view of business performance measurement with the business process view (Cross and Lynch, 1992; Neely *et al.*, 2000).	✓ The Business Excellence Model proposes that the "Key Performance Results comprise both financial and non-financial aspects (EFQM, 2009).
	The organization should have clear objectives	× The framework does not mention whether the organizations should have clear objectives or not.	✓ The framework first questions the company's existing strategy before starting the process of selecting measures (Neely *et al.*, 2001).	✓ The overall review process deals with the review of the company's overall strategic objectives, including the mission and vision statements of the business (Najmi *et al.*, 2005)	✓ BSC translates mission and strategy into objectives and measures, organized into four different perspectives (Kaplan and Norton; 1992, 1996, 2001a).	✓ The performance pyramid links organisation's strategy with its operations by translating objectives from the top down (based on customer priorities) and measures from the bottom up (Cross and Lynch, 1992).	✓ The "Leadership" and "Policy and Strategy" determine the direction and focus of the enterprise (Lankhorst, 2009).

	The organization should use strategic planning that attempts to systematise the processes that enable an organization to attain its goals and objectives	× There is no consensus over what the dimensions of performance measures that are important to be measured for the organisation and identify where there are omissions or where there is a need for greater focus (Neely, 2002).	✓ The framework is organised around five different linked perspective and one of them is the *Strategies* which clearly emphasizes that the organization should use strategic planning that attempts to systematise the processes that enable an organization to attain its goals and objectives Neely (2007)	✓ The framework consists of two main review categories: Business performance and PMS performance. Therefore, the overall review has an impact on all steps of the direction, processes and measures elements mentioned earlier (direction and measures and processes) (Najmi *et al.*, 2005).	✓ The model is monitoring organization performance against strategic goals (Kaplan and Norton; 1992, 1996, 2001a).	✓ The model includes four levels of objectives that address the organisation's external effectiveness (left side of the pyramid) and internal efficiency (right side of the pyramid) (Cross and Lynch, 1992).	✓ The "Process" criteria identifies how the organization designs, manage and improves its process in order to support its policy and strategy and fully satisfy and generate increasing value for its customers and other stakeholders, which may reflect the organizational objectives (Zimmer *et al*., 2004).
Understanding Current Performance	**The organization should perform operations which meet the needs of the customers**	⊘ External non-cost measures may reflect some of the customer requirements (such as number of customer complaints, number of repeat buyers, market share) (Keegan et al., 1989).	✓ The framework is focusing on the fundamental building blocks of the organisation's (people, practices, technology,...etc.) that will enhance the ability to compete and determining the needs of the stakeholders to assume their satisfaction (Neely *et al*., 2001).	× There is no consensus over what perform operations which meet the needs of the customers.	✓ BSC reflects the needs of stakeholders and target groups, focuses on internal operations important for customer satisfaction, and reflects the ability of the organization to continue to improve and create a role for its customers and stakeholders (Kaplan and Norton; 1992, 1996, 2001a).	✓ The model explicit the difference between measures that are of interest to external parties-customer satisfaction (Neely *et al.*, 2000).	✓ The "Customer Results" criteria recognizing what are the customers' perception of the organisation and how good are the drivers of customer satisfaction? EFQM (2009).

		However, the matrix does not make explicit the links between the different dimensions of business performance (Neely *et al.*, 2000). Therefore, there is no clear definition of customers' requirements is covered.					
Identifying performance gap	**The organization identify where problems bottlenecks, waste, etc., exist and where improvements are necessary**	⦸ There is no consensus over how identify where problems bottlenecks, waste, etc., exist and where improvements are necessary. May Internal performance measures reflect some of the required improvements especially when it comes to time delivery and designing cycle time for the organization (Keegan *et al.*, 1989).	× The framework does not mention how to identify where problems bottlenecks, waste, etc., exist and where improvements are necessary.	× The framework does not mention how to identify where problems bottlenecks, waste, etc., exist and where improvements are necessary.	✓ The four perspectives of the BSC permit a balance between long-term objectives, between outcome desired and the performance drivers of those outcomes, and between hard objectives measures and softer, more subjective measures (Kaplan and Norton; 1992, 1996, 2001a).	✓ The clear objectives translated top downwards along with appropriate internal measuring could provide perspective of past, present and future performance for the organization, which in turn will help in identifying performance gap (Cross and Lynch, 1992).	✓ Through assessing the five enablers and their impact on the results. Thus identify what is the organisation achieving in relation to its planned performance (TQM excellence model).

Identifying Constraints **(changeable / unchangeable)**	**Identify key driving forces (Politics/economy/ society/technology; Industry/competitors);**	⦸ This framework partially identified key driving forces, it may be identified as: number of repeat buyers, number of customer complaints, and market share (Keegan *et al.*, 1989).	⦸ This framework partially identified key driving forces, it may be identified as: the infrastructure, the applied technology, and regulators (Neely *et al.*, 2001).	× The framework does not mention how the organizations should identify key driving forces or not.	× The model does not mention how the organizations should identify key driving forces or not.	× The model does not mention how the organizations should identify key driving forces or not.	⦸ This model partially identified key driving forces through Society Results" criteria by identifying how does society and the local community perceive the organisation and what results have been achieved relating to community and environmental concerns? (EFQM, 2009).
	The organization should recognize the constraint on any system that restricts the maximum performance level that the system can obtain in relation to its goal	× The framework does not mention how the organizations should recognize the constraint on any system or not	✓ This criterion is answered through questioning the "Capabilities" facet. Consequently, it becomes possible to identify measures that allow the organisation to assess whether it has the required capabilities in place now, or has plans to implement them, and whether they are being sufficiently nurtured and protected to achieve its goals.	× The framework does not mention how the organizations should recognize the constraint on any system or not	× The model does not mention how the organizations should recognize the constraint on any system or not	✓ It makes explicit the difference between measures that are of interest to external parties- customer satisfaction, quality and delivery, and measures that are primarily of interest within the business - productivity, cycle time and waste (Cross and Lynch, 1992).	⦸ This model partially recognize the constraint on any system through "Partnerships and Resources" criteria by identifying how the organisation manages resources, including external resources, effectively and efficiently (EFQM, 2009).

	The organization should classify/rank uncertainties (Short/long term; Critical events)	× The framework does not mention how the organizations should classify and rank uncertainties or not	× The framework does not mention how the organizations should classify and rank uncertainties or not	× The framework does not mention how the organizations should classify and rank uncertainties or not	× The model does not mention how the organizations should classify and rank uncertainties or not	× The model does not mention how the organizations should classify and rank uncertainties or not	✓ The model can classify and rank uncertainties through enablers and results weights (EFQM, 2009).
Predicting future performance	**The organization should suggest what possible futures might look like, how they might come about, and why this might happen.**	⦸ This framework partially suggest what possible futures might look like, and how they might come about through considering the external non-cost factors (number of customer complaints, number of repeat buyers, market share) and the external cost factors (competitive cost and "Research and Development" expenditures). But it does not mention why this might happen as this Framework does not make explicit the links between the different dimensions of business performance.	✓ Predicting the *Capabilities* enable execution of the organisation's business processes (both now and in the future). Also, the *process* perspective and the shared relation between the organization and its stakeholder determine its prediction of future performance (Neely *et al.*, 2001).	× The framework does not mention how the organizations should suggest what possible futures might look like, how they might come about, and why this might happen.	✓ The measures are balanced between the outcome measures-the results from past efforts-and the measures that drive future performance. Moreover, BSC organized around four perspectives that overcome the problems of financial outcomes outweighing the process, also it give an early indication of future performance to see how future will look like considering the financial perspective (Kaplan and Norton; 1992, 1996, 2001a).	✓ The appropriate channels of communication between the operations done when the productivity and financial measures are translated from the bottom up and the objectives from the top down; allow the organization know how to identify contingent decisions and gives adequate image for the future (Cross and Lynch, 1992).	× The model lacks a future orientation: i.e., it benchmarks the excellence of present day processes. This can create a focus on current performance rather than an assessment of capability for the future (Neely, 2010).

Planning Performance	**The organization should identify the desired performance to perform its expectations**	× There is no consensus over how identify the desired performance to perform its expectations The framework does not reflect all the attributes of measures that are increasingly considered necessary, the matrix should be able to accommodate any measure of performance (Neely *et al.*, 2005).	✓ The framework is designed to assist performance measurement selection (Neely *et al.*, 2001).	✓ PMS review framework aims to facilitate the reviewing of business performance and performance measurement systems at the same time, as well as taking into account several key characteristics of PMS design (Najmi *et al.*, 2005).	× There are no procedures for mapping means and relationships which absolutely overlooks links with the reward structure (Otley, 1999).	✓ The model is seeking to find a link between external effectiveness and internal efficiency (Cross and Lynch, 1992).	✓ The desired performance is to increase value for organization, customers and other stakeholders (EFQM, 2009).

⦸: The framework partially consider it
✓: The framework consider it
×: The framework does not mention it

2.10 Conclusion

Based on the literature, performance planning is a process within the overall process of performance management that includes performance planning (Plan), measurement (Check) and improvement (Do/Act). Performance planning literature focuses on performance appraisals and relating individual performance, however, so far there seems to be little literature exploring in detail the performance planning process for any system and not for the individual only. Also, there appears to be a degree of systems thinking evident in the literature as many authors consider managing performance of different systems, such as an organisation, a process and an individual.

Thus, in order to understand how an organisation's performance may be planned, it is considered important to develop an overall understanding of the literature concerning the overall performance management process. This leads the researcher to build a framework for performance planning and to compare it with the existing performance measurement models to see whether it fulfils the criteria stipulated in the performance planning framework. It seems that the existing performance measurement models do not adequately represent or fulfil all the components identified in the framework all at one model or framework, suggesting that there is a gap in theory concerning "Identifying performance gap" and "Identifying constraints". However, this raises a question with respect to performance planning in practice. Therefore, the next chapter explores whether any of the features specified in the performance planning framework exists in practice, either formally or informally.

Research Question (2): **How do companies approach the features specified in the performance planning framework?**

CHAPTER 3

PERFORMANCE PLANNING FRAMEWORK IN PRACTICE

3.1 Introduction

The objective of this chapter is to answer the second research question (i.e. "*How do companies approach the features specified in the performance planning framework?*") in order to investigate how the performance planning framework is applied in practice. The purpose behind this is to explore whether any of the features specified in the performance planning framework exists in practice, either formally or informally, as this would allow the researcher to gain greater insights to the phenomenon of performance planning practice in the context of the literature.

This is achieved through semi-structured interviews with senior managers at two organisations in Egypt. As these interviews were intended as initial exploratory investigations and there are some limitations with this approach. Particularly, with only one person being interviewed from each organisation there were no triangulations. This was deemed acceptable at this early stage of the research as the objective was to gain an overview of what is really happening in practice and see whether there are some insights to this before designing the research in detail. The chapter concludes that in practice these companies do apply/use the performance planning framework informally without following any formalized process. This leads to the third research question "*How would more systematic (i.e. formal) use of the performance planning model influence performance?*"

3.2 Performance Planning in Various Organisations

In order to investigate the application of performance planning framework in practice, the practices of two organizations (educational and banking) have been studied through semi-structured interviews. Both organizations have been chosen for ease of access. The semi-structured interviews were made with CEO's during the period from February, 2006 - June, 2006 (as shown in Table 3.1) to explore the main elements of performance planning framework; namely, defining the performance criteria, understanding current performance, identifying performance gap, identifying constraints, predicting future performance, and planning performance. The individual interview lasted for two hours.

Table 3.1: The Sample of the Study

Case1: Arab Academy for Science, Technology and Maritime Transport (AASTMT) – educational service.	President of AASTMT
Case2: Cairo Bank "Banque Du Caire"– banking service.	Branch Manager

3.2.1 Case 1: AASTMT

The AASTMT is an independent, non-profit organization, and specialized educational institution of the Arab league engaged in teaching, training, research and community services. It aims to provide high quality education to students from diverse segments of the Egyptian society by means of programs at undergraduate, graduate and professional levels as well as an extensive continuing education program.

In AASTMT, there are various departments and faculties and each department, faculty and the individuals that make up these departments and faculties may be considered separate but interdependent systems. However, for the purposes of this case the AASTMT is considered a complete system. The following sections describe how the AASTMT fulfils the performance planning framework developed in the previous chapter.

3.2.1.1 Defining the performance criteria of the system

The AASTMT is a private university that is subject to the supervision of the "Supreme Council of Universities" (SCU) just like public universities. The SCU determines the responsibilities of this council as: laying down the general strategy of study, education, student's admission rules and services, cultural and social activities as well as sports; coordinating among the supreme councils for education and students in universities; evaluating the systems of university education, examination, and students' affairs and services; planning the general system of the post-graduate studies at universities and coordinating among them; laying down the general policies regarding the compensation of the lack of academic staff in universities as well as their delegation to scientific missions; setting down the procedures for organizing conferences, scientific seminars and symposia; and the admission rules of graduates in post-graduate studies. So the AASTMT performance criteria are set to satisfy the SCU as follows:

1. Develop technical, scientific and cultural human resources (HR).
2. Upgrade staff resources enhancing its development.
3. Develop and improve the knowledge base of society.
4. Supervise research and improve the general technical skills in society.
5. Improve the educational quality according to modern quality.
6. Participate in the research and solving of social problems.
7. Participate in the research improving and solving of environmental problems.
8. Be financially viable.

Thus, according to these eight objectives; each performance criterion is identified.

3.2.1.2 Understanding Current Performance

For *develop a technical, scientific and cultural HR*; understanding current performance at AASTMT is achieved since the AASTMT management selects specialist companies to deal with then send graduate students to work with them. Then the academy contacts

these companies to have feedback and to determine the ability of those graduates to cope with the requirements of those companies.

For *upgrade staff resources enhancing its development;* understanding current performance at The AASTMT is achieved through “Education Affairs” which keeps track of the extent the lecturers fulfil their scientific research requirements and their "teaching skills" through a “semi-annual committee”.

For *develop and improve the knowledge base of society*; understanding current performance at The AASTMT is almost attained since the AASTMT has established different associations to determine the extent of its contribution in the service of society through the “Community Service Program” and the “Arab Navigation Assembly”.

For *supervise research and improve the general technical skills in society*; understanding current performance at AASTMT is supported through established the “Centre for the Modernization of Industry” which determines the requirements of service/manufacturing companies and bodies of the various projects and then the college departments ask students to study those projects as graduation projects.

For *improve the educational quality according to modern quality*; understanding current performance at AASTMT is achieved since the “Supreme Council of Universities” (SCU) formulates and effects all laws and regulatory framework related to graduate and post-graduate studies, curricula and universities’ regulations as well as the faculty staff members’ affairs. It also determines the students’ yearly intake numbers and admission rules to different faculties. The essential objective of the higher education in Egypt is to produce quality education and a student that has the know-how and knowledge. To achieve this objective, the SCU has to make periodical investigations for the Universities to make sure that they achieve the desired objectives. The SCU is managed by the Minister of Higher Education or his representative. In addition to the self-assessment performance which is annually conducted by the “Quality Certification Granting

Agency" which has specific requirements in order to renew the certificate, like: students' numbers, credit hour loading, research volume, faculty awards, Ph.D. graduations, use of technology at the college, etc...) as well as the monthly meetings held for Heads of departments/Deans in order to monitor and follow-up the implementation of assigned tasks, as well as solving any problems which may hinder progress.

Therefore, this helps define the acceptable quality of the delivered service for the AASTMT, but it is only a routine survey conducted by the end of each semester to fulfil the ISO documents and there are no clear performance measures used and no methodology for assessing or improving.

For *participate in the research and solving of social problems*; understanding current performance at the AASTMT is almost attained since the AASTMT has established an association for the care of orphans and needy families.

For *participate in the research improving and solving of environmental problems*; understanding current performance at the AASTMT is almost attained since the AASTMT has established a department to protect the environment from pollution through cooperating with civil societies and government.

For *be financially viable;* understanding current performance at the AASTMT is attained since the AASTMT determines the costs according to the real cost of the student since it is a non-profit organization.

Therefore, it seems that some objective performance measures area originates from the "Quality Certification Granting Agency" and the "Supreme Council of Universities". In other areas, understanding performance is informally accessed by engaging and communicating with the stakeholder community as part of delivering the performance objective. Thus, current performance levels are identified based on informal feedback and communications rather than objective measures.

3.2.1.3 Identifying AASTMT Performance Gap

For *develop a technical, scientific and cultural HR*; the AASTMT follows up the graduates who have registered for the master degree through passing their acceptance test. The AASTMT's Alumni Association establishes and enhances a continuing relationship between the Academy and its graduates. This helps in getting information about the graduates' work and achievements as well as in identifying whether the AASTMT's objectives are met through these graduates or not to identify the performance gap.

Unfortunately, according to the results of questionnaires conducted at the "Alumni Association", the AASTMT has failed to develop and improve the knowledge base of society, participate in the research and solving of social problems, participate in the research improving and solving of environmental problems, and to be financially viable.

For *upgrade staff resources enhancing its development;* to identify performance gap, the "Human resources Department" distributes performance appraisals to each head of department in order to know the performance level of staff and to know the gaps in their current performance against what they have to achieve.

For *develop and improve the knowledge base of society*; to identify performance gap, the "Community Service Program" in collaboration with non-governmental organizations keen on serving community, determines the targeted numbers and then calculates the ratio of beneficiaries of programs to identify the gap.

For *supervise research and improve the general technical skills in society*; to identify performance gap, the "Centre for the Modernization of Industry" determines the extent of interest and application of the projects to study at the AASTMT that had been suggested by them.

For *improve the educational quality according to modern quality*; to identify performance gap, both the "Supreme Council of Universities" and "Quality Certification Granting Agency" help in identifying the performance gap of the educational quality through their reports comparing results against target.

For *participate in the research and solving of social problems*; to identify performance gap, the association for the care of orphans and needy families identifies whether the budget allocated to these families are in balance.

For *participate in the research improving and solving of environmental problems*; to identify performance gap, the Department of Environment identifies the proportions of pollution that have been dealt with during the year.

For *be financially viable;* to identify performance gap, the AASTMT determines the performance gap according to the "deficient" if the number of students was not as scheduled.

Therefore, again it seems that there are no objective performance measures except in case of "Quality Certification Granting Agency" and the "Supreme Council of Universities". Thus, identifying performance gap is identified based on informal feedback and communications rather than objective measures.

3.2.1.4 Identifying Constraints

For *identifying constraints*; the AASTMT fully considers all governmental legislations and laws. But unfortunately, the AASTMT does not classify or rank uncertainties on the short/long term, as well as critical events. Accordingly, the AASTMT identifies only the legislations constraints which negatively affect the performance.

3.2.1.5 Predicting Future Performance

For *predicting future performance*; the AASTMT identifies its current position through the requirements identified by the "Quality Certification Granting Agency" and the "Supreme Council of Universities" in order to suggest the possible future specified by its CEO. Therefore, the AASTMT prepares an annual achievement report that clarifies the current performance in comparison with the performance of the previous five years, as the accreditation renewal is done every four years, to make sure that it has covered all the SCU requirements. Accordingly, predicting the future performance of the AASTMT is achieved since the organization is having the essential historical and current performance.

Therefore, the requirements identified by the "Quality Certification Granting Agency" and the accreditation renewal of "Supreme Council of Universities" are the main elements identified in the performance gap based on informal feedback and predicting future performance.

3.2.1.6 Planning Performance

For *develop a technical, scientific and cultural HR*; to plan for performance, the AASTMT develops curricula and training programs for students to bridge the gap between the requirements of the job market and graduates.

For *upgrade staff resources enhancing its development;* for planning performance, the AASTMT is preparing the programs and procedures for the rehabilitation of staff to cope with international standards.

For *develop and improve the knowledge base of society*; for planning performance, the "Community Service Program" in collaboration with non-governmental organizations keen on serving community, develops programs to meet the targeted numbers that was not covered before in identifying performance gap.

For *supervise research and improve the general technical skills in society*; to plan for performance, the "Centre for the Modernization of Industry" determines a mechanism for setting priorities for projects to be proposed to students.

For *improve the educational quality according to modern quality*; to plan for performance, the AASTMT reviews the strategic plans for the competitive universities to consider while planning.

For *participate in the research and solving of social problems*; to plan for performance, the AASTMT is planning for creating economic organisms to prepare feasibility studies for small projects to help needy families.

For *participate in the research improving and solving of environmental problems*; to plan for performance, the AASTMT is developing a plan to enclose the annual requirements to protect the environment from pollution.

For *be financially viable;* to plan for performance, the AASTMT provides additional resources to meet the deficit if it occurs.

Thus, planning for performance is identified based on informal individual trials rather than objective measures to planning for performance.

3.2.2 Case 2: Banque Du Caire

Banque Du Caire has been serving the national economy for 46 Years and has more than 230 branches, offices and units all over Egypt. It is uniquely distinguished by having five branches in the Gulf Area. Banque Du Caire is specialized in the contracting, housing, tourism, insurance, healthcare, and transport sectors. It also offers a broader range of products and services to private sector clients. The nature of banking businesses requires banks to clearly and accurately define their objectives for both shareholders and clients. Banque Du Caire's management focuses its priorities on the profitable growth,

not just the increase in the market share. It also aims at doubling the digit growth in loans and in deposits over the next two years to achieve the set growth targets. This gives Banque Du Caire higher access to clients with lower costs and less operational complications. Banque Du Caire has been paying significant attention to its delivery channels, including mobile phones, in addition to increasing the number of branches and ATMs in an attempt to attract retail customers.

3.2.2.1 Defining the performance criteria of the system

The main objectives of the bank are determined by the top management considering the Central Bank rules. Banque Du Caire set the required percentages to be achieved in each of the elements of the performance criteria based on comparison with what has been achieved during the previous years considering the average in the banking system of Egypt as a benchmark. So, in Banque Du Caire, the performance criteria are:

1. Total assets
2. Customer deposits
3. Total loans
4. Total shareholders' equity
5. Paid-up capital
6. Net profit/year

Thus, according to these six objectives; each performance criterion is identified

3.2.2.2 Understanding Current Performance

Banque Du Caire can find out the current performance of activity through comparing the results of his work during the year by the results of his work during the previous years, and then compare those results with the banking system averages for those periods to know the bank's financial position compared to banks operating in the banking market.

Banque Du Caire understands its current performance by following up the change in the rates of performance criteria established for each of the elements affecting its activity by either an increase or a decrease. Those elements are: total assets, customer deposits, total loans, total shareholders' equity, paid-up capital, and net profit/year. So, as there are certain performance measures and targets, current performance levels are identified based on formal measures and targets.

3.2.2.3 Identifying Performance Gap

To identify performance gap at Banque Du Caire the top management compares its performance indicators with an average of the banking system in Egypt, such as capital adequacy (shareholder rights/assets), asset quality (loans allocations/loans), profitability (net profit/assets), and employment standards (loans/deposits). These indicators can help the bank to judge the success in achieving its policies and plans that help in identifying its profitability compared to the banking system and identify the performance gap. This is due to several key elements including: Low market share for the bank from loans and deposits of the banking system, high proportion of bad debts with the bank, high cost to the bank due to the increase in its administrative expenses, decline in capital adequacy ratio compared to other competitive banks, the small number of branches compared to other competitive banks, the failure to declare for the bank to conduct some banking operations, and the competitions from other foreign and private banks. Thus, identifying performance gap is achieved based on formal measures.

3.2.2.4 Identifying Constraints

Banque Du Caire has controllable constraints and non-controllable constraints identified as: decline in the growth of the national economy, the global financial crisis impact on the banking system, competition from private sector banks and branches of foreign banks, failure to provide Islamic banking services, and abiding by the instructions of the Central Bank. Therefore, Banque Du Caire succeeds in identifying the constraints but these constraints negatively affect the bank's performance.

3.2.2.5 Predicting Future Performance

Banque Du Caire predicts the future performance for every performance criteria based on the constraints it faces as follows:

For *decline in the growth of the national economy* and for *the global financial crisis impact on the banking system*, Banque Du Caire is trying to reduce the proportion of the bank's expenses to the income earned. Moreover, it takes advantage of the government policies to confront the crisis impact on banks by encouraging them, to provide loans to support small and medium enterprises and to contribute to the establishment of these projects and work to further increase the investment opportunities in new fields. In addition to providing the necessary facilities for customers with simplified procedures, especially in opening documentary credits to importers, since Egypt imports annually 50 billion Egyptian pounds.

As for the strong *competition from private sector banks and branches of foreign banks*, which offer features and services better than that provided by the public sector banks, which negatively affects the activity, in addition to the benefits they offer to their employees, which leads to leakage of skilled employment from state-owned banks to those banks, Banque Du Caire is upgrading its employees and is working to increase their salary and organize training courses for them, either in banking or marketing, which will ultimately benefit the bank.

Furthermore, it endeavours to develop the existing branches of the Bank and to establish new branch network covering Egypt and foreign countries to counter the increase in the existing branches of foreign and private banks. Also, it takes advantage of the higher per capita income in Egypt and grants benefits to customers so as to get the interest rate on lending and to increase the interest rate on deposit.

Moreover, the Bank is working on to give credit and financial powers to those branches to facilitate the procedures in the main branch and to speed up the decision-making process concerning credit, besides the use of technological advances to facilitate and speed up procedures at the Bank to be able to face other competitive banks in the field.

For *failure to provide Islamic banking services*, in the presence of private sector banks providing Islamic banking services, which cater for a large proportion of customers who do not deal with commercial banks, including Banque Du Caire, the bank is seeking to engage in this activity by abiding to the laws governing the work of banks in accordance with the Central Bank.

For *abiding by the instructions of the Central Bank*, the Central Bank is the one which implements the policy of the State to watch all the actions of banks operating in Egypt and to implement the regulations, systems and policies that all banks must abide for the benefit of the State. For the state-owned banks including Banque Du Caire, Central Bank establishes controls and requirements that should be implemented, identifies the interest rate on the loan or deposit, and sets the credit limit which banks allow to clients. It also determines the proportion of the volume of business undertaken by the bank in deposits at the Central Bank to protect the rights of the client. Therefore, in order to implement these policies, the bank must carry out economic feasibility studies for a good investment of capital in order to raise the profitability indicators. It must as well develop plans to increase the effective presence of total loans of all sorts, to both small or medium-sized projects, and the real estate financing with no prejudice to the requirements of the Central Bank.

Therefore, it seems that Banque Du Caire has formal targets to be achieved to predict future performance. Thus, future is identified based on certain targets.

3.2.2.6 Planning Performance

Banque Du Caire has to develop plans relatively short or long to monitor and review its performance and to correct its mistakes so the bank can continue in the banking market and face fierce competition on the part of private sector banks and foreign banks. Accordingly, the Bank takes certain measures to guarantee its sustainability, including:

- Developing plans and studies that will enable the Bank to increase its capital and commensurate with the current and future expansions in the various activities to raise capital for the Bank's profitability indicators.
- Conducting the required studies that help the diversity coffers to attract more savings and take advantage of the presence of power in the granting of loans.
- Developing plans that will help to pay attention to the human element within the Bank so as to create specialized personnel in all areas of banking business, and to work to solve their problems to get the best results and performance.

Therefore, it seems that Banque Du Caire has formal targets to achieve to “planning for performance”. Thus, plan performance is identified based on certain targets.

3.3 Overall Outcome of the Interview

After conducting the interview and analyzing the results, it was obvious that organizations responded in a different manner, according to the nature of each organization, the atmosphere of competition, the profit motive and the managerial system. It is obvious that the profit seeking organization like Banque Du Caire and the non-profit seeking organization like the AASTMT have accurate performance criteria. *It could be noticed from the investigation that Banque Du Caire has certain measures and targets while the AASTMT does not have these kinds of measures*.

Understanding performance and identifying performance gap at AASTMT are informally accessed by communicating with the stakeholder community as part of delivering the performance objective, except in the cases of "Quality Certification Granting Agency" and the "Supreme Council of Universities". Thus, current performance levels and performance gaps are identified based on informal feedback and communications rather than objective measures. This in turn, shows the conforming to governmental legislations and laws. After that, the predicting future performance based on the requirements identified by the "Quality Certification Granting Agency" is done as the accreditation renewal of "Supreme Council of Universities". Also, planning for performance is identified based on informal individual trials rather than objective measures to plan for performance.

Current performance levels at Banque Du Caire are identified based on formal measures and targets by considering the changes in the financial situation of the bank. Then, the identification of performance gaps is achieved based on formal measures by comparing the performance indicators and criteria of Banque Du Caire with an average in the banking system of Egypt. Banque Du Caire informally identifies the constraints that negatively affect bank's performance that latter help in predicting the future performance for every performance criteria then plans performance.

3.4 Conclusion

The objective of this chapter was to answer the second research question (i.e. "*How do companies approach the features specified in the performance planning framework?*") in order to investigate how the performance planning framework is applied in practice to explore whether any of the features specified in the performance planning framework exists in practice, either formally or informally. The interviews reveal the fact that both the AASTMT and Banque Du Caire are keen on utilizing performance planning framework in their business culture – however with different point of views – because they believe this will lead to their survival in a severe – highly dynamic – competitive atmosphere. Therefore, it could be observed that these companies do apply the key components of performance planning framework informally without following any formalized process to performance planning. Thus, it seems that the practices associated with performance planning are fragmented across a number of disciples. Consequently, the researcher proposes that there is a need to develop a unifying model for performance planning that interprets these practices (to be discussed in Chapter 5), which raises an important question "How would more systematic (i.e. formal) use of the performance planning model influence performance?" (To be discussed in Chapter 6).

Research Question (3): **How would more systematic (i.e. formal) use of the performance planning model influence performance?**

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The objective of this chapter is to discuss the research methodology followed in conducting this research. It starts with the intention of applying research methodology in this study, followed by a comprehensive outline of some common research paradigms types of research, research design, and research strategies. Subsequently, it focuses on: research protocol, selecting case studies, evaluating the quality of case studies, data collection methods, data analysis, and the criteria used to evaluate the overall quality of the research findings.

4.2 The Research Methodology

Marczyk *et al*. (2005) assert that despite the accessibility and prevalence of research in today's society, many people share common misperceptions about what research is, how research can be used, what research can tell us, and the limitations of research. Leedy (1997) defines research as "*the systematic process of collecting and analyzing information (data) in order to increase our understanding of the phenomenon with which we are concerned or interested*". Reinard (2001) provides the following short definition of research: "*Research is the systematic effort to secure answers to questions*". He expands on this concise definition by stressing the point that "*these questions are not mundane ones*", but that "*research questions deal with issues requiring reference to data and information*" (Reinard 2001).

Marczyk *et al*. (2005) define research as "*an examination of the relationship between one or more independent variables and one or more dependent variables. In even more precise terms, they define research as an "examination of the effects of one or more independent variables on one or more dependent variables*".

Kumar (2005) mentions that "research methodology is taught as a supporting subject in several ways in many academic disciplines at various levels by people committed to a variety of research paradigms though paradigms vary in their contents and substance, and their broad approach to inquiry". Blaikie (1993) defines methodology as being "*the analysis of how research should or does proceed. It includes discussion of how theories are generated and tested, what kind of logic is used, what criteria they have to satisfy, what theories look like and how particular theoretical perspectives can be related to particular research problems*". According to Gharajedaghi (1999), a methodology is an approach or method to bring something into being or to accomplish something.

4.3 Research Paradigms

In order to select the most appropriate research paradigm for this study, the available research paradigms have been reviewed and outlines of the characteristics, advantages, and drawbacks of each are provided. According to Sekaran (2003), research methodology can be broadly classified into two different paradigms; the scientific empirical tradition (quantitative) and the naturalistic phenomenological modes (qualitative).

4.3.1 Quantitative Research

The quantitative paradigm has been labelled as the positivist, experimental, objectivist, scientific, or empirical paradigm (Collins and Hussey, 2003). According to Struwig *et al*. (2001), *"Quantitative research is a form of conclusive research involving large representative samples and fairly structured data collection procedures, a primary role of quantitative research is to test hypotheses. A hypothesis is a position (or statement) regarding the relationship between two or more variables (phenomena) and a hypothesis can be tested"*. Quantitative research involves studies that make use of statistical analyses to obtain their findings (Thomas, 2003). Key features include formal and systematic measurement and the use of statistics (Marczyk *et al*., 2005). Aliaga and Gunderson (2002) describe quantitative research as "*explaining phenomena by collecting numerical data that are analysed using mathematically based methods (statistics)*". According to Sekaran (2003), the objective of quantitative research is to determine the relationship between one thing (an independent variable(s)) and another (a dependent or outcome variable) in a population.

4.3.2 Qualitative Research

The qualitative paradigm has been labelled as the constructivist or naturalistic approach (Lincoln and Guba, 1985), the humanistic approach (Collins and Hussey, 2003). Denzin and Lincoln (2005) propose the following definition: "*Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world visible. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them"*.

Qualitative research is generally defined as "*research that utilizes open-ended interviewing to explore and understand the attitudes, opinions, feelings, and behaviour of individuals or a group of individuals*" (Patton, 2002). Principally, qualitative research is used to collect data about activities, events, occurrences and behaviours and to understand actions, problems and processes within their social context (Phillimore and Goodson, 2004). Qualitative research involves studies that do not attempt to quantify their results through statistical summary or analysis (Thomas, 2003; Marczyk *et al*., 2005) and relies on the skills of the researcher as an observer or interviewer in respect of gathering data (Riley *et al*., 2000). Qualitative research is not based on a unified theoretical and methodological concept (Flick, 2009). According to Creswell (2003), qualitative research involves analysing data collected from a variety of empirical materials such as case studies, interviews, observations (without formal measurement) and historical archives. Baker and Hart (2007) add that by combing these methods in researching the same phenomena, triangulation can be found.

4.3.3 Research Paradigm used in this study

The choice of qualitative research methodology was related to the nature of the topic and research objective. Employing qualitative research methods makes the quality of the data of paramount importance. Consequently, emphasis is placed on how and under what circumstances the data is collected (Morgan and Smircich, 1980). In contrast to quantitative research methods, it is rare to see a qualitative researcher working with large quantities of data. This is the case with the current study as all analyzed data comes from 32 cases at two organizations. Maxwell (1992) defined the qualitative research methods as theory forming. These methods are used to generate new theories or introduce new hypotheses. Maxwell (1992) mentioned that qualitative research is preoccupied with describing a phenomenon as thoroughly as possible, and forming a theory behind it. Based on the paradigmatic characteristics provided by Maxwell (1992), ***the use of qualitative research methods was consistent with the objectives of the research and the state of knowledge in the field of performance planning.***

The characteristics of Qualitative versus Quantitative Research have been identified by many authors as shown in Table (4.1). Also, Saunders *et al*. (2007) discuss the advantages and disadvantages of the main research approaches as shown in Table (4.2).

Table 4.1: Characteristics of Qualitative versus Quantitative Research

Qualitative	Quantitative
1. Available literature limited or missing.	1. Available literature relatively high.
2. Relies on the use of words rather than numbers.	2. Relies on the use of numbers and measurements.
3. Focuses on phenomena that cannot be explained adequately with statistics (Theory development).	3. Focuses on phenomena that can be explained by numbers and statistics (Concerned with hypothesis testing).
4. Research questions are exploratory and interpretive	4. Research questions are confirmatory and predictive.
5. Tends to be less intrusive, and the researcher can work carefully (Uses small samples).	5. Requires the researcher to play a more outstanding role in the data gathering process (Uses large samples).
6. Has a data collection process that is semi-structured. Processes are naturalistic, participatory, interpretive in nature, and humanistic (Data is rich and subjective)	6. Structures the data collection process (Data is highly specific and precise).
7. Is more flexible and changes as the data and circumstances change (Reliability is low).	7. Requires a set plan for the completion of research (Reliability is high).
8. Has a phenomenological perspective (Generalizes from one setting to another).	8. Has a post-positive tradition (Generalizes from sample to population).

Source: Collins and Hussey (2003); Kerlinger and Lee (2000); Struwig *et al*. (2001); Burns and Grove (2002); Bryman and Bell (2007)

Table 4.2: Advantages and disadvantages of the main research approaches

	Qualitative	Quantitative
Advantages	Facilitates understanding of how and why	Economical collection of large amount of data
	Enables researcher to be alive to changes which occur during the research process	Clear theoretical focus for the research at the outset
	Good at understanding social processes	Greater opportunity for researcher to retain control of research process
		Easily comparable data
Disadvantages	Data collection can be time consuming	Inflexible – direction often cannot be changed once data collection has started
	Data analysis is difficult	Weak at understanding social processes
	Researcher has to live with the uncertainty that clear patterns may not emerge	Often does not discover the meanings people attach to social phenomena

Source: Saunders *et al*. (2007)

4.4 Types of research

Bless *et al.* (2006) distinguish four types of research on the basis of this classification: exploratory, descriptive, correlation and explanatory.

4.4.1 Exploratory research

Exploratory research is undertaken when the objective of the research is either to explore an area where little is known about or to investigate the possibilities of undertaking a particular research study (Marshall and Rossman, 1999; Zikmund, 2000; Sekan, 2003; Kumar, 2005). Exploratory research is a methodological approach that is primarily concerned with discovery and with generating or building theory (Jupp, 2006). As cited by McNabb (2004), most exploratory research is conducted for either: a preparatory examination of an issue for *gaining insights*, or for *gathering information* for immediate application to an administrative problem. He adds the objective of a typical exploratory research design is to gain as much information as possible in little time and with the least amount of expenditure of money and effort.

4.4.2 Descriptive research

The purpose of descriptive research is to provide a “picture” of phenomenon as it naturally occurs, as opposed to studying the impacts of the phenomenon or intervention, it can be designed to describe only one variable, comparing the variable to a particular standard, or summarizing the relationship between two or more variables (Bickman and Rog, 1997; Kumar, 2005). Descriptive research focuses on "how", "who", "what", "when" and "where" questions (Smith, 1998; Bernard, 2000; Reid and Bojanic, 2009) and "*provides a solid platform for helping to understand current, and possibly predict future behaviour*" (Smith, 1998). Also Phillips and Pugh (2000) argue that in descriptive research one tries to find the limits of previously proposed generalizations.

4.4.3 Correlational research

The basic design of correlational research is to collect data on two or more variables on the same people and to determine the relationships among the variables, but the researcher cannot presume a cause-and-effect relationship (Thomas *et al.,* 2005; Marczyk *et al.,* 2005). Bless *et al.* (2006) explain that correlational research "*is based on systematic comparison, manipulation and control of variables*", it is "*not only useful when no clear causal relationship exists, but also allows for an estimation of the strength of the relationship between two variables even when one variable is influenced by many others*".

4.4.4 Explanatory research

Explanatory research attempts to clarify why and how there is a relationship between two aspects of a situation or phenomenon (Bernard, 2000; Kumar, 2005). Explanatory research concerned with an inquiry into the causality of the phenomenon with reference to an established theory or prior hypothesis (Mukherjee, 1983) and used to develop explanations of a subject (D'Cruz and Jones, 2004).

4.4.5 Type of research used in this study

According to Smith (1998); Marshall and Rossman (1999); Bless and Higson-Smith (2000); Zikmund (2000); Sekan (2003) and Kumar (2005) exploratory research is to explore a phenomenon in greater depth with a view to building new theory. Their definition for explanatory research is to explain cause and effect relationships within a particular phenomenon with a view to generate greater insights and where appropriate test existing theories. Therefore, this research uses a combination of both types starting by *exploratory* research to reach the research objective which is *"To explore the relationship between performance planning and performance within the overall performance management process"* and according to the research questions: *"How do companies approach the features specified in the performance planning framework?"*

and "How would more systematic (i.e. formal) use of the performance planning model influence performance?". Then, ending with *explanatory* research; as it moves on to explain the causes and effects between the completion of performance planning process and the performance levels for each system (27 in AASTMT and 7 in Banque Du Caire). Also, it could be argued that by explaining the phenomenon observed the research builds a new theory (Maxwell, 1992).

The phases of the exploratory and explanatory research used are illustrated in Figure (4.1).

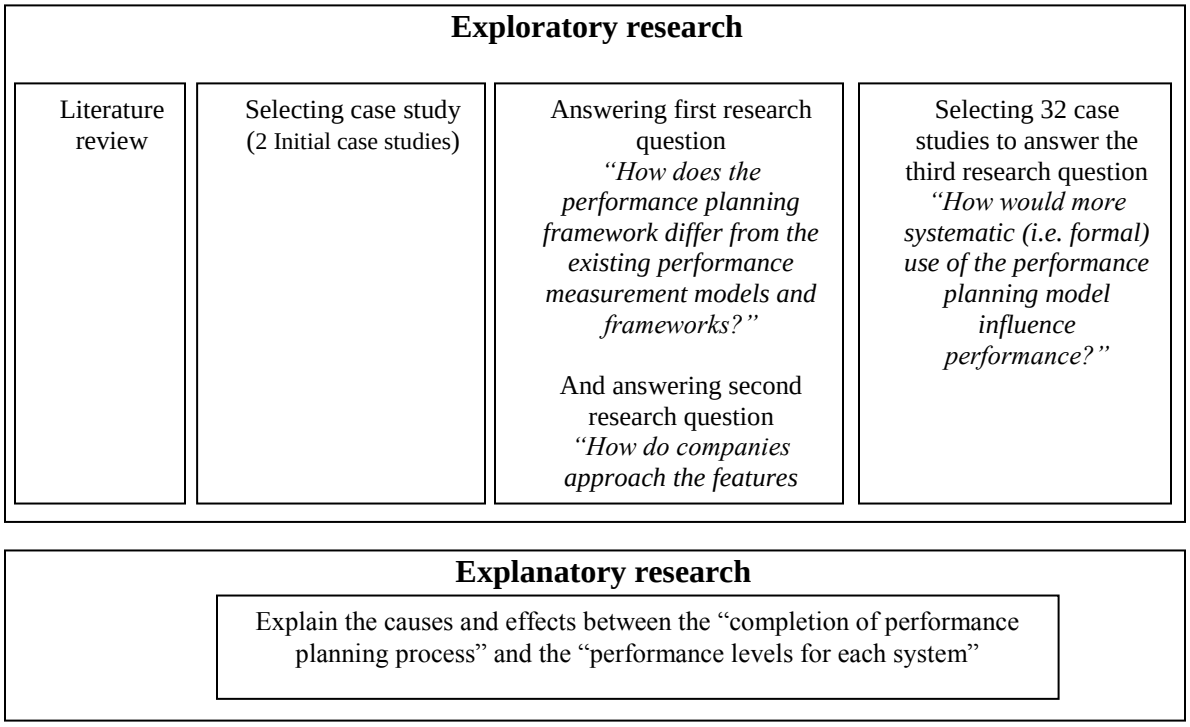
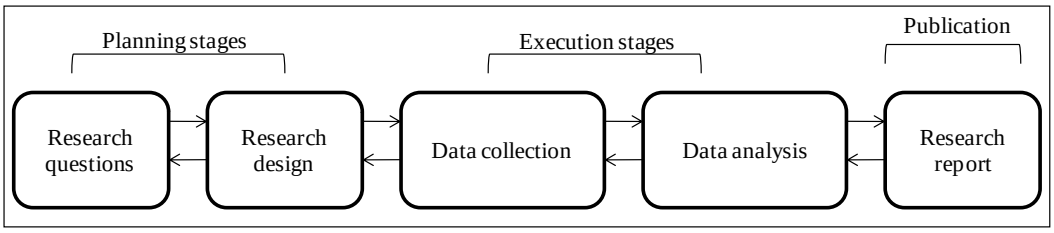


Figure 4.1: Phases of the Exploratory and Explanatory Research

4.5 Research Design

Research design guides the researcher in the process of collecting, analysing and interpreting observations and allows one to draw inferences concerning causal relationships and to define the domain of generalizability (Yin, 2003). The main objective of the research design is to ensure that the data collection and analysis methods chosen at the different phases of the research are appropriate to answer the research questions. According to Blanche *et al*. (2008), research design plays a crucial role as a bridge between the research question and the execution of the research, as shown in figure (4.2).



Source: Blanche *et al*. (2008)

Figure 4.2: Research process

Seale and Barnard (1998) add that the research questions influence the whole research process and provide a focus for the researcher and the nature of the research question will determine the purpose and approach of a research study. This in turn influences the methods chosen to answer the aforementioned questions.

4.6 Research Strategies

According to Yin (2003), research strategies can be compared based on three main criteria (as shown in Table 4.3): the type of research question, the control the researcher has over behavioural events and the focus on current as opposed to historical phenomena.

Table 4.3: Relevant situations for different research strategies

Strategy	Form of research question	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	how, why	yes	yes
Survey	who, what, where how many how much	no	yes
Archival analysis	who, what, where how many how much	no	yes/no
History	how, why	no	no
Case study	how, why	no	yes

Source: Yin (2003)

Yin (2003) criticises the view that certain research strategies should only be used during specific phases of the research. He also argues that instead of looking at the phase of the research, the researcher should focus on the three criteria defined above when choosing a research strategy. So when should you use a case study approach? According to Yin (2003) a case study design should be considered when: (a) the focus of the study is to answer "how" and "why" questions; (b) you cannot manipulate the behaviour of those involved in the study; (c) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or (d) the boundaries are not clear between the phenomenon and context. As all these conditions are true for this particular research, a case study approach was deemed appropriate. This allows the researcher to *explore* in more detail "How do companies approach the features specified in the performance planning framework?" and "How would more systematic (i.e. formal) use of the performance planning model influence performance?". In this research, 32 cases from two organizations ("Arab Academy for Science, Technology and Maritime Transport" and Cairo Bank "Banque Du Caire") were used to explore the relationship between completeness of the performance planning process and attained performance through multiple units of analysis as this would provide a uniform sample base to compare relative performances. Here, the details of each case have been excluded in order to keep this section of the thesis concise. However, in order to explain the phenomenon observed extreme cases were selected based on contrasting results and are discussed in detail.

4.6.1 Case Study

In a case study, the researcher explores a single entity or phenomenon ("the case") bounded by time and activity (e.g., a programme, event, institution, or social group) and collects detailed information through a variety of data collection procedures over a sustained period of time (Stake, 1999; Cunningham, 1997). Case studies have a practical function in that they can be immediately applicable to the participant's diagnosis or treatment (Marczyk *et al*., 2005). Yin (2003) defines case studies as: "*an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident, and it relies on multiple sources of evidence*".

From the review of the existing literature the following are the benefits of case studies (Eisenhardt, 1989; Yin, 2003; Stake, 1999; Meredith, 1998):

- The phenomenon can be studied in its natural setting, which allows generating and/or testing the new theories with the ultimate end users. This increases the validity and acceptance of the research by practitioners.
- It enables the full understanding of the nature and complexity of the phenomenon. This comprehensive data analysis generates new and creative insights that can answer the why, what or how questions.
- It allows exploratory investigations where the variables are unknown and the phenomenon not at all understood.
- It can fulfil various purposes; this includes description, exploration, and creation of theory or testing of theory. In any case, *case study is not a methodological choice but a choice of what is to be studied*.

The same authors refer to a number of challenges related to case studies. These are:

- Resource requirement of direct observation (i.e. cost, time and access)
- Need for multiple methods for triangulation
- Lack of control, complications of context and temporal dynamics
- Need for good interviewing skills
- Difficulties for generalisation

Most authors on methodology suggest steps in research processes which may be carried out sequentially or iteratively or even parallel (Nederhof, 2001). For example, Eisenhardt (1989) proposes a step-by-step process for building theory from *case study research* (Table 4.4).

Table 4.4: Process of building theory from case study research

Step	Activity	Reason
Getting started	Definition of research questions. Possibly a priori construct. Neither theory nor hypothesis.	Focuses efforts. Provides better grounding of construct measures. Retains theoretical flexibility.
Selecting cases	Specified population. Theoretical, not random, sampling.	Constraints extraneous variation and sharpens external validity. Focuses efforts on theoretically useful cases – i.e. those that replicate or extend theory by filling conceptual categories.
Crafting Instruments and Protocols	Multiple data collection methods. Qualitative and quantitative data combined. Multiple investigators.	Strengthens grounding of theory by triangulation of evidence. Synergistic view of evidence. Fosters divergent perspectives and strengthens grounding.
Entering the Field	Overlap data collection and analysis, including field notes. Flexible and opportunistic data collection methods.	Speeds analyses and reveals helpful adjustments to data collection. Allows investigators to take advantage of emergent themes and unique case features.
Analyzing data	Within-case analysis. Cross-case pattern search using divergent techniques.	Gains familiarity with data and preliminary theory generation. Forces investigators to look beyond initial impressions and see evidence through multiple lenses.

Shaping Hypotheses	Iterative tabulation of evidence for each construct. Replication, not sampling, logic across cases. Search evidence for 'why' behind relationships.	Sharpens construct definition, validity, and measurability. Confirms, extends, and sharpens theory. Builds internal validity.
Enfolding Literature	Comparison with conflicting literature. Comparison with similar literature.	Builds internal validity, raises theoretical level, and sharpens construct definitions. Sharpens generalizability, improves construct definition, and raises theoretical level.
Reaching Closure	Theoretical saturation when possible.	Ends process when marginal improvement becomes small.

Source: Eisenhardt (1989)

4.7 Research protocol

As part of the preparation for the organization visits a research protocol was designed. The research protocol sent to all organizations consisted of an overview of the research (with special emphasis on research objectives and the research question that the case study focused on), an outline of the main areas that the interviews would concentrate on to give the organization the overall context of the study. The research protocol sent to the organizations only included a list of the interviewees and the approximate time required for each interview. The full components of the field procedures were the following:

1. Introduction to the organization by the key contact person.
2. Semi-structured interviews allowing the interviewees to expand on each of the questions.
3. After compiling data from interviews and documentation, prepare a feedback report to send to the organizations. If possible, visit the organization and discuss the contents of the feedback report with interviewees.

4.7.1 Selecting the case studies

The researcher wanted to assess the model and assess the relationship between completeness of the performance planning process and attained performance in 34 case studies in two different organisations (educational and banking). The researcher selected these two organisations to be one of them profit seeking organization and the other non-profit seeking organization, as well as to the ease access of data. Moreover, the Arab Academy for Science, Technology and Maritime Transport considers one of the most successful private Universities in Alexandria, Egypt. As well, Cairo Bank "Banque Du Caire" considers one of oldest and biggest bank in Egypt which brings trust when dealing with it.

Yin (2003) states that it is important to focus on two issues that researchers need to tackle when designing case study research: (1) the number of cases needed to answer the research questions, and (2) which cases to choose and which ones to discard.

Case study research work can involve either a single-case or a multiple case research design. *Single case study* research design should be adopted when the case represents: a critical case that meets all the conditions for testing a theory, a unique or extreme case, and a revelatory case that provides access to a situation that was previously inaccessible for investigation (Yin, 2003). Single case studies, however, have certain limitations that the researcher needs to address prior to choosing that option. Firstly, the possibility for generalising the findings or theories developed from a single case are very limited (Yin, 2003). Secondly, if data from a single case study is wrong, this can affect the quality of the whole research work.

Multiple case studies provide more strong research results, as Yin (2003) noted "*a major insight is to consider multiple cases as one would consider multiple experiments – that is, to follow replication logic*". *Replication logic* takes place when different case studies produce the predicted similar results (*literal replication*) or when the different case studies produce contrasting results but for predictable reasons (*theoretical replication*). Miles and Huberman (1994) state that multiple case studies deepen theoretical understanding and explanation and increase the possibility for generalising the theory. However, the main drawback of multiple case studies is the amount of resources required and that they demand clear choices about which cases to include within the case sample. As a result, the researcher should identify when selecting cases those cases that either predict *similar results* or predict contrasting results but for predictable reasons (Yin, 2003). Therefore, ***in this research multiple case studies were used in order to assess the model and assess the relationship between completeness of the performance planning process and attained performance in 34 case studies (system) in two different organisations.***

4.7.2 Evaluating the quality of case studies

In order to evaluate the quality of case study research Yin (2003) defines four tests that must be applied. He also suggests a number of tactics that researchers can adopt to ensure that the research satisfactorily goes through each test. Table (4.5) summarises the tactics that researcher used in this research based on Yin (2003).

Table 4.5: Case study tactics for four design tests

Tests	Case study tactic	Phase of research in which tactic occurs
Construct validity	Use multiple sources of evidence Establish chain of evidence to be easily followed by other researchers	Data collection Data collection
Internal validity	Do pattern matching to compare theoretical patterns with empirical patterns	Data analysis
External validity	Use replication logic in multiple case studies	Research design
Reliability	Use case study protocol	Data collection

Source: Yin (2003)

4.8 Data collection methods

There are several available data collection instruments; Table (4.6) illustrates a summary of several data collection methods including their strengths and weaknesses.

Table 4.6: Data collection methods – strengths and weaknesses

Source of Evidence	Strengths	Weaknesses
Documentation	▪ Stable-can be reviewed repeatedly ▪ Unobtrusive-not created as a result of the case study ▪ Exact-contains exact names, references, and details of an event ▪ Broad coverage-long span of time, many events, and many settings	▪ Retrievability-can be low ▪ Biased selectivity, if collection is incomplete ▪ Reporting bias-reflects (unknown) bias of author ▪ Access-may be deliberately blocked
Interviews	▪ Targeted-focuses directly on case study topic ▪ Insightful-provides perceived causal inferences ▪ Effective for collecting in-depth data ▪ Opportunity for clarifying misunderstandings	▪ Bias due to poorly constructed questions ▪ Response bias ▪ Inaccuracies due to poor recall ▪ Reflexivity-interview gives what interviewer wants to hear ▪ Interviewing and data-analysis is time consuming
Questionnaires	▪ Time efficient ▪ Opportunity for quantifying responses	▪ Response bias ▪ Lack of in-depth data (unless it is supported by interviews)
Direct Observations	▪ Reality-covers events in real time ▪ Contextual-covers context of event	▪ Time-consuming ▪ Selectivity-unless broad coverage ▪ Reflexivity-event may proceed differently because it is being observed ▪ Cost-hours needed by human observers
Participant Observation	▪ (same as above for direct observations) ▪ Insightful into interpersonal behaviour and motives	▪ (same as above for direct observations) ▪ Bias due to investigator's manipulation of events
Diary methods	▪ Very appropriate to support observations ▪ Useful to obtain insightful data into social processes	▪ Difficult to analyse data
Surveys	▪ Covers big sample size ▪ Opportunity to quantify responses ▪ Time efficient	▪ Potential ambiguity of questions ▪ Response bias ▪ Lack of in-depth data

Source: Easterby-Smith *et al*., 2002; Oppenheim, 2001; Stake, 1999; Barnes, 2001; Sekran, 2003; Yin, 2003; Cooper and Schindler, 2006

Yin (2003) argues that interviews are an essential data source in case study research because case studies are about understanding human affairs. The idea in using semi-structured interview is to develop an interviewing guide, which is then applied more or less consistently in each interview (Flick, 2008). The interviewer asks key questions in the same way each time and does some searching for further information (Ritchie and Lewis, 2003). It relies on certain set of questions and tries to guide the conversation to remain, more loosely, on those questions (Nagy *et al*., 2005). As the objective of the research is to "*explore the relationship between performance planning and performance within the overall performance management process*" through exploration of "*How would more systematic (i.e. formal) use of the performance planning model influence performance*". ***A semi-structured interview technique was considered appropriate, particularly as the aim was to explore the level of agreement and completeness of the performance planning process and its relationship with performance***.

The interviews were conducted during the period from June, 2008 - March, 2009 to identify the level of performance and the level of completeness of the performance planning process as well as to test the level of agreement with the proposed model. Each interview lasted approximately 1 to 2 hours. The researcher used an interviewing guide to collect the desired answers for the performance levels for each system (27 in AASTMT and 7 in Banque Du Caire) based on the KPIs defined for each system (20 KPIs in case of AASTMT and 7 in case of Banque Du Caire) as shown in appendix (1) and (2). Each KPI for each system was evaluated by the interviewees according to a three-point Likert scale (3 is Good- 2 is Satisfactory- 1 is Bad). Then, the researcher starts to ask the interviewees why their answers are like that to allow the interviewees to expand on each of the questions and at the same time allow the researcher to understand in more details the causes of the answers which helped later when explaining the observed phenomenon. Then, the completeness of the performance planning process was explored based on the completeness of each one of the six steps of the process. The completeness of each step was evaluated by the interviewees on a binary scale, i.e. "Yes – that activity/step takes places in the system" or "No – that activity/step does not take

place in the system". Then again, the researcher starts to ask the interviewees why their answers are like that to allow the interviewees to expand on each of the questions and at the same time allow the researcher to understand in more details the causes of the answers as an input for later analysis.

During the initial phase of the thesis in the model building phase, a case study strategy was particularly appropriate because 'how' type of questions were the main focus of this phase. The researcher wanted to investigate if any of the features specified in the performance planning framework are applied in companies either formally or informally through two case studies. Two different organization types were selected because, at this stage, it was considered important to develop an insight into the oriented issues of performance planning. The limitation of this is clearly that a deep analysis of individual organizational characteristics has been scarified for a wider analysis. Semi-structured interviews were used to enable the exploration in more depth with CEO's of companies to identify if these companies are applying any of the features specified in the performance planning framework, either formally or informally (Chapter 3). The purpose of these case studies was exploration to later help in building the performance planning model (Chapter 5). Then in the model testing phase, 32 different systems from two different organizations ("Arab Academy for Science, Technology and Maritime Transport" and Cairo Bank "Banque Du Caire") were used to test the model and assess the relationship between completeness of the performance planning process and attained performance through multiple units of analysis (systems) as this would provide a uniform sample base to compare relative performances (Chapter 6). But considering that the performance planning is only one of the factors that may affect the systems' performance despite the level of completion of the performance planning process, for example in the case of AASTMT; the level of students, the numbers of students in classes, and demand for courses, and in case of "Banque Du Caire"; location of the bank, number of employees, and the size of the bank. In turn the discussion section will discuss the results in the context of Macro and Micro environmental factors within how each system operates.

The interviews at AASTMT that were conducted with the Deans of colleges (5 systems) and the Heads of departments (22 systems) were divided to three interviews as follows: 1) the level of performance for the selected colleges and their departments, 2) the implementation of performance planning model for selected colleges and their departments, and 3) the agreement to the performance planning model's components. The interview pre-test proceeded in the following manner: consultations were made during the model components and sequence development and throughout the questions used in the interview to obtain feedback on the usefulness of the model and the questions in order to identify any required revisions. During this stage, Prof. Human Resources, Prof. Operational Research, Prof. Industrial Management, Prof. Research Methodology, Prof. Management Information System, Prof. Planning Department, and some lecturers were consulted to help improve the quality of the interview. Copies of the revised interview were also sent to a small random sample of potential staff at the AASTMT to check the quality of the questions, and to pinpoint any potential problems. Then according to the acceptance of the before mentioned professors, the pilot study showed that the main questions included in the interview had acceptable reliability in general.

Then to develop a degree of confidence in the data, the researcher took the results and revised it with the "Dean of Productivity and Quality Institute" who has the knowledge of the real performance to those colleges and their departments, also revised with him the ISO documentation which has the elements that can roughly compare with it the performance to those colleges and their departments. Finally, found that the results are unbiased. Also, the interviews at AASTMT were conducted with the Deans of 5 Colleges and the Heads of 22 departments for these colleges, so the researcher was able to detect any misinformation between the Deans and Head of departments.

The interviews at Banque Du Caire conducted with Heads of one department over seven branches (7 systems) were divided to three interviews as follows: 1) the level of performance, 2) the implementation of performance planning model, and 3) the agreement to the performance planning model's components. It was predicted that

differences in the experience of the Heads of one department over the seven branches might possibly be limiting factors in completing the data, therefore to avoid this type of problem, the researcher made semi-structured interviews at Banque Du Caire. The interview pre-test proceeded in the following manner: consultations were made during the model components development and throughout the questions used in the interview to obtain feedback on the quality of the model and the questions in order to identify any required revisions. During this stage, Head Section of Credit, Branch Manager, Economic Researcher and Head of Economic and Management Department of Maritime Transport Researches were consulted to help improve the quality of the interview. Copies of the revised interview were also sent to a small random sample of potential employees at the National Société Générale Bank (NSGB) and Banque Du Caire to check the quality of the questions, and to pinpoint any potential problems. Then according to the acceptance of the before mentioned professionals, the pilot study showed that the main questions included in the interview had acceptable reliability in general. Then to develop a degree of confidence in the data; the researcher took the results and revised it with the "Branch Manger" of each Branch who has the knowledge of the real performance to those departments, finding that the results are unbiased. Also, the researcher took the results and revised it with the "Department of inspection and internal control" which is not affiliated in terms of regulatory to the branch of the bank, but rather directly affiliated with the Head Office of Banque du Caire. This department is responsible for: inspects and supervises the entire bank's departments, evaluates their performance, how they implement performance standards established for the various departments of the bank and monitor their performance according to each job function and task. Putting into consideration that there is no authority for the Branch Manger to this department and their employees, as this Department raise reports directly to the Head Office that is ultimately evaluated the performance of the Bank and its staff. Accordingly, this helps to ascertain what the head of department said during the interviews.

4.9 Data analysis

Analysing data is the heart of most research work. Most commonly, authors (Eisenhardt, 1989; Yin, 2003; Miles and Huberman, 1994) make a distinction between within-case and cross-case data analysis for analysing data during qualitative studies. This section also discusses the concept of triangulation, which is a recognised method for drawing conclusions and increasing the validity of the research findings.

4.9.1 Within-case analysis

The objective of within-case analysis is to gain a good understanding of a particular case and to identify those unique patterns that emerge before generalising patterns across cases (Eisenhardt, 1989). It makes the researcher focus on looking for explanations and causalities within the case (Miles and Huberman, 1994; Yin, 2003). Miles and Huberman (1994) suggest four methods for looking for explanation, causality and drawing conclusions. These include:

1. *Explanatory effect matrix:* can be considered as the first step to finding explanations and causes.
2. *Case dynamic matrixes:* display a set of forces for change and trace the consequential processes and outcomes.
3. *Causal network:* is a display of the most important independent and dependent variables in a field study and of the relationships among these variables.
4. *Making and testing predictions*: for analysing the data is to make predictions and to use data from the case studies to test them.

According to Miles and Huberman (1994), the explanatory effect matrix is used to answer questions of the following type, *"Why were these outcomes achieved?" and "What caused them generally or specifically?"*, ***therefore, the researcher used explanatory effect matrix in order to find explanations and causalities within the cases.*** The explanatory effects matrix consists of cross-tabulation of the 32 cases that participated in this research according to their performance and the level of completeness to the performance planning process (See Tables 6.4 to 6.12 in Chapter 6). The researcher has chosen the *explanatory effects matrix* for explaining the research, because the matrix format allows an analysis between the completeness of performance planning process and attained performance across 32 cases.

4.9.2 Cross-case analysis

In Cross-case analysis, the researcher focuses on instances of the outcome being studied that are located in two or more different cases (Brady and Collier, 2004). It often includes visual displays of similarities and differences across cases (Mathison, 2004). In Cross-case analysis, the report emphasises reasons why differences occur, with an explanation of why a difference was found (Carson *et al*., 2001). Cross-case analysis seeks for patterns amongst several cases that are essential to increase the internal validity and the potential to generalise the research findings. As Eisernhardt (1989) states, people tend to leap to conclusions based on limited data, influenced by other individuals, ignoring accidentally dropping disconfirming evidence. Cross-case analysis allows overcoming these problems by looking at data in different ways.

4.9.3 Triangulation

Triangulation is widely recognised as a way of providing enhanced research validity and reliability. This is achieved through deploying more than one research method and/or tool so that the findings of the study are not biased and become means to increase the validity and richness of the data collected and also the confidence of the researcher with the results (Stake, 1999; Yin, 2003; Denzin and Lincoln, 2005). In any case, the application of triangulation goes beyond the confirmation of a single set of findings in that it enables one to look for additional interpretations and understanding (Stake, 1999).

According to Stake (1999), there are four main forms of triangulation that researchers can use to increases the validity and reliability of the research.

1. *Data source triangulation:* refers to the analysis of the consistency of different data sources through studying a phenomenon using different data sources, at different times, in other places, or on different occasions.
2. *Investigator triangulation:* is used when different researchers study the same phenomenon, data or interpretation.
3. Theory triangulation: also uses multiple observers to interpret data but in this case, these observers have different theoretical backgrounds and will always have different viewpoints about the same phenomenon.
4. *Methodological triangulation:* the researcher uses more than one method to gather data (e.g. interviews, direct observation, and documentation) to study a particular case.

4.10 Quality of the research

It is important to define the research quality criteria early in the process in order to ensure that the appropriate tactics are adopted (Meredith, 1998; Coughlan and Coghlan, 2002; Easterby-Smith *et al*., 2002; Voss *et al*., 2002; Yin, 2003; Martinez and Albores, 2003). Therefore, Table (4.7) summarises the criteria that will be used to evaluate the quality of this research then the results for these evaluations will be explained in Chapter (7).

Table 4.7: Criteria for evaluating the quality of this research

Criterion	**Definition**
1. Contribution to knowledge	Contribution to knowledge is a key aim of any research work and it will determine the quality of case study, action and constructive research (Voss *et al*., 2002).
2. Rigour of the research design and process	The rigour of a research study is demonstrated through a logical and rational research design (Yin, 2003). Generally, four tests are applied to assess the rigour of the research process. These are: *construct validity, internal validity, external validity and reliability.*
2.1. Construct validity	Construct validity refers to the establishment of the appropriate operational measures or variables for the concepts being studied (Yin, 2003). In other words, the research design needs to fully address the research questions and objectives (Yin, 2003). To increase construct validity, Voss *et al.* (2002) suggest a numbers of tactics, including enfolding literature, use of establishing a chain of evidence, have a draft case study report reviewed by respondents and using multiple sources of evidence.
2.2. Internal validity	Internal validity is related to explanatory or causal studies. It is concerned with the establishment of causal relationships, in which the researcher determines that certain conditions lead to other conditions (Yin, 2003). For a research to be internally valid the researcher needs to be sure that full access to the knowledge and meanings of informants has been gained (Easterby-Smith *et al*., 2002).

2.3. External validity	External validity or generalisation is concerned with knowing whether a study's findings are applicable beyond the immediate case. More precisely, it refers to the domain to which the research findings can be generalised (Yin, 2003). Yet, it is important to bear in mind that the primary objective of case studies is not to generate universal knowledge but to gain a better understanding of a phenomenon in the context of that particular case (Meredith, 1998; Coughlan and Coghlan, 2002).
2.4. Reliability	A research is reliable when the process of study is reasonable and consistent over time and when the process, if used by different researchers in the same environment, achieves the same results and draws the same conclusions (Yin, 2003). In qualitative studies, the key to reliability is to demonstrate, through argument and analysis, that the process of exploration (i.e. data generation and analysis) has been appropriate to answer the research questions as well as thorough, careful, honest and accurate (Lanning, 2001). This will reduce potential biases of the study. Therefore, according to Yin (2003) one prerequisite for allowing future investigators to repeat an earlier study is a *structured documentation* and *reporting of the procedures followed*. Other tactics to deal with reliability include using a *case study protocol*, *case study database*, *interview guide* and *pilot case studies* (Yin, 2003).

Once these controls are clearly defined (as shown in Table 4.7), it is important to identify the tactics that the researcher is going to use to ensure that the research fulfils the criteria. The researcher summarises the tactics for ensuring the quality of the research used (as shown in Table 4.8) while doing this research in the following section.

Table 4.8: Methods used to ensure the validity and reliability of the research

Research design	Theory replication logic in multiple case studies	PR	To increase *external validity* of the factors that affects the development of Performance Planning Framework.
	Selection of multiple data collection techniques (interviews and documentation)	PR	To ensure quality of data and increase *construct validity.*
	Definition of quality criteria	PR	To increase *reliability* of the research.
Case studies	Multiple sources of evidence	DC	To increase *construct validity.*
	Case study protocol	DC	To increase *reliability* of the research.
	Within case analysis and accurate representation of empirical data	DA	To find explanations and increase *internal validity* and *reliability* of the study.
	Accurate representation of data	CO	To increase *internal validity* and *reliability.*
Developing and testing the model	Enfolding literature	DE CO	To increase *construct, internal, external validity* and show novelty of the model.
	Pattern matching	CO	To increase *internal validity* of the model.
PR: Preparation, DC: Data collection, DA: Data analysis, CO: Concluding, DE: Development			

4.11 Conclusion

This chapter discussed a number of issues related to research methodology and paradigms. Then it discussed the types of research, research design and strategies used in this study. After that it discussed research protocol, selecting the case studies, evaluating the quality of case studies, data collection methods, and data analysis. Finally, it dealt with the criteria used to evaluate the overall quality of research findings. The following chapter discusses the case study based research programme and develops a process model for performance planning based on systems theory.

CHAPTER 5

MODEL BUILDING

5.1 Introduction

After discussing research methodology and methods used in this study, this chapter studies the types of models and chooses a process modelling specifically the IDEF0-like technique to develop a generic model for performance planning from a systems perspective and give a description of the performance planning model.

5.2 Types of models

To be able to visualise or think about something, one needs an image or picture of it. An image can be defined as that which exists in the mind as the product of careful mental activity. A model is normally used when the image is to be conveyed from the originator of the image to others (Gharajedaghi, 1999). A model is thus an abstract description of the real world, simple representations of a more complex reality, a construct of the way things are, or a paradigm - the way the world is viewed (Rubenstein and Firstenberg, 1995). According to Vernadat (1996), "*A modelling process is a set of activities to be followed for creating one or more models of something for the purpose of representation, communication, analysis, decision-making, design or synthesis, or control*". Further, a model is a useful representation of some object. It is (more or less) an abstraction of reality (or universe of discourse) expressed in terms of some formalism (or language) defined by modelling constructs for the purpose of the user (Vernadat, 1996). Holt (2007) adds that modelling helps to deal with and minimize the impact of: complexity, lack of understanding, and communication problems.

The literature contains references to different types of models that are reviewed in the following sub-sections.

5.2.1 Verbal Models

The verbal model is a model that allows for linguistic rather than numerical values and for casual relationships between the variables to be formulated verbally rather than numerically (Zwick, 1988). Verbal models are used when the basic relations which describe the system are too complex and too little known to model them mathematically (Bosch and Klauw, 1994). They are also used to make a choice concerning which aspects of the "real world" we include in our description and which we choose to ignore (for the moment) (Haccou *et al*., 2005).

5.2.2 Analogue Models

The analogue model includes only the features that describe the real-life phenomena of concern. Analogue models can be physical systems serving as an analogue model to something else, or they can be conceptual models that take the form of mental pictures rather than physical models. Analogue models are very powerful and descriptive, but may suffer from the errors of omission and commission (Rubenstein and Firstenberg, 1995).

5.2.3 Schematic Models

The schematic model graphically represents a phenomenon, situation or process, or sequence of processes. The value of this model depends on its ability to describe and facilitate understanding of a situation and the relationships between the components within the model (Blanchard and Fabrycky, 1998).

5.2.4 Mathematical Models

The mathematical models are built on quantitative principles aimed to predict and explain certain outcomes. They may look simple or complex, but they are presented in mathematical equations or manipulated with dependant and independent variables, constants and parameters (Rubenstein and Firstenberg, 1995).

5.2.5 Analytical Models

Michaud and Sazeides (2008) stated that Analytical models provide explicit solutions, generally in the form of an infinite sum or an integral, which can be evaluated quickly and accurately on modern computers. However, analytical methods require more idealization of the physical system. Analytical methods are reliable and computationally efficient (Michaud and Sazeides, 2008). Analytical models allow the use of more variables than one can comfortably carry in mind. By temporarily setting aside unimportant variables, they serve as powerful tools for the study of interrelationships among the important variables (Explanatory and Analytical Models, 2002).

5.2.6 Descriptive Models

The descriptive model is based on data and analysis of life realities and existing state of practice. Its development relies heavily on field studies and surveys (Baruch, 2003). John and Weitz (1989) clarify that the principal problem of descriptive models is the fact that realities do not necessarily represent the best or optimal case. Schneider (2004) declared that Descriptive models do not tell anybody what to do – they try to represent what is actually being done. They are supposed to capture non-ideal properties of the processes as well. In fact, it is one of their main purposes to capture and show the weak spots of a given real process. However, against more real world criteria, descriptive models show great practical application, because they can offer reliable prediction, insight and explanation (Ehrenberg and Sharp, 2000).

5.2.7 Normative Models

The normative model is based on what may be the best way to deal with the framework, phenomenon and concept. Its development usually relies on theory and the views of those who set norms (Vroom, 2001; Kirchmer, 1999). Normative models are useful as standards against which to evaluate but they only show what the ideal thinker would do in specific situations without taking into account human limitations and constraints (Nickerson, 2007).

5.2.8 Process Models

A process is simply "*an approach to doing something that consists of a number of activities, each of which will produce and/or consume some sort of artifact. Each of these activities is the responsibility of a single stakeholder role"* (Holt, 2007). He adds process modelling is arguably one of the most important aspects of any organization in terms of the management and control of all of the organizational activities. These activities will range from the high-level business activities, including mission statements, business processes and requirements, right down to very detailed technical processes that may be executed on a daily basis within the organization. Process models can be used for planning, designing, simulating, and executing business processes (Curtis *et al*., 1992; Holt, 2007). Process models are used for four main purposes: estimation, prediction, calibration, and optimization (Engineering statistics handbook, 2006).

There are many examples of process models (Tagg and Reddy, 2010); program flow charts are the longest established, but other examples include process decomposition (structure) diagrams, data flow diagrams (DFDs), business process modelling language (BPML), and IDEF (Plaia and Carrie, 1995; Sarkis and Liles, 1995; Van Rensburg and Zwemstra, 1995; Bosilj-Vuksic *et al*., 2000; Perera and Liyanage, 2001; Presley and Liles, 2001; Knowledge Based Systems, 2010). Control flows have been added to DFDs. Texas Instruments (1990) introduced process dependency diagrams, which exclude data

stores from DFDs but contain more details on the nature of the dependencies.

Petri Nets (Peterson, 1981) are well known and used in software engineering; these can be regarded as dependency diagrams with two types of elements, namely "places" (which represent states of a system) and "transitions" (which represent events and their associated actions in the system).

Therefore, this research will use a process model for the development of performance planning model, specifically will use an IDEF0-like technique to model the flow between the activities in the performance management process with an emphasis on performance planning as it is widely recognized and it captures the ICOM's.

This research used the IDEF0 modelling technique as each activity and arrow can be decomposed into more detailed levels of analysis which help in modelling details about lower level activities but at the same time be hidden from models at higher levels (Presley and Liles, 2001). Also, it is effective in detailing the system activities for function modelling. Additionally, the description of the activities of a system can be easily refined into greater and greater detail until the model is as descriptive as necessary for the decision making task at hand (Lingzhi *et al.*, 1996).

5.3 A Process Model for Performance Planning

Based on the review of different modelling techniques, the researcher decided to develop a normative process model. As this research is trying to understand performance planning as part of the overall performance management process, it was thought important to model performance planning as a process. Furthermore, as the research is aiming to answer the following research questions: How would more systematic (i.e. formal) use of the performance planning model influence performance?, it was thought a normative approach, i.e. what performance planning would look like in an ideal world, based on the literature, would be appropriate.

As mentioned previously in Chapter 2 that there appears to be a degree of systems thinking as many authors (Deming, 1986; Rummler and Brache, 1995; Spangenberg, 1994) consider managing performance of different systems, such as an organisation, a process and an individual. Therefore, a performance management process manages the system which could be a person, a department, a business process ...etc. Performance management process gives the objectives to performance planning, monitors the performance of a system, and makes decision about what the system should do. Based on that, the performance planning process is used to make up the continuous cycle of any system which is the focus of this research "*Plan performance*".

And according to the interviews with the CEO's of two different organizations (Chapter Three), the performance planning framework is modified to the current performance planning model. Accordingly, the "*Plan performance*" is divided into six steps: Set system goals, identify performance gap, identify performance constraints, conduct cost/benefit analysis on each constraint, decide on improvement strategy, and publish performance plan.

5.3.1 Set system goals

Theory suggests that clear goals and measurable results are necessary in order to prevent the diffusion of system energy (Kaplan, 2001). By quantifying goals and measuring whether they are achieved, system reduces and eliminates ambiguity and confusion about objectives, and gains coherence and focus in pursuit of their mission. According to Williams (2002), the importance of vision, mission and strategy as a support for performance management is strongly emphasized in much of the practitioner-oriented literature. Taken together, they set out what the organization is to become in the long term and how that desired position is to be arrived at. They state the purpose(s) of the organization and what it is to achieve at least in general terms, then, they offer some statement of the organizational performance that is wanted.

Obviously this can be achieved by setting key performance indicators. Key performance indicators (KPIs) represent set of measures focusing on those aspects of organizational performance that are the most critical for the current and future success of the organization (Parmenter, 2007), also to tell you what action needs to take place (Blokdijk, 2008). Beatham *et al*. (2004) state that key performance indicators reflect and derive from the organizational goals to know what one is achieving. They add if this measure is used as a leading indicator, then it can be used to give an early warning, identify a potential problem and highlight the need for further investigation which in turn provides an opportunity to change and to take appropriate corrective action. Reviewing the literature, it is found that the set of criteria most often referenced is that of SMART (Specific, Measurable, Attainable, Realistic and Time-sensitive) (Shahin and Mahbod, 2007).

5.3.2 Identify Performance Gap

Any business needs a measurable way to gauge productivity. In manufacturing, performance may be described as the number of units produced, the rate of rejection by quality assurance, or the number of calls of warranty. Or it may be measured as the cost of production and/or the amount of waste produced, or the time it takes to produce each unit. Stated differently, performance can be defined by measures for productivity (quantity), quality, time, and cost. Once one has measured current state (the present level of performance), the next step is to describe current state (the desired level of performance). Therefore, it is necessary to identify the desired level of performance in measurable terms; the performance gap occurs when there is a difference between where one is and where he/she wants to be (Kaydos, 1998; Braverman *et al*., 2004; Wilson, 2005; Piskurich, 2006; Chevalier, 2007; Pressley *et al*., 2007; Hall, 2008).

5.3.3 Identify Performance Constraints

Constraints can come in many flavours, and it's often difficult to know where to look first. Is the constraint internal or external? Is it in the operations, or somewhere else? Constraints may be controllable (removable) [financial – resources – material – market demand–knowledge/competence] and others are sometimes uncontrollable (irremovable) [environmental factors – policy/regulations – culture] aligned with business rules and policy (Gray and Schragenheim, 2010). By taking the *theory of constraints philosophy* into consideration, improvements in performance can only be achieved by focusing on system constraints. Goldratt and Cox (1992) suggest five steps to achieve this focus. These steps are generic in that they can be applied to any system. They are as follows:

1. *Identify the system constraints (weakest link):* A system cannot be maintained at maximum performance unless the system constraints are determined so as to design the control mechanisms appropriate to the constraints.
2. *Decide how to exploit the system constraints*: How to get the most out of the constraint, relative to what the system is trying to achieve
3. *Subordinate the non-constraint:* Link the output of other operations to suit the constraint and make sure the rest of the system is enabled to help not detracted from its ability to achieve step 2.
4. *Elevate the system's constraint:* After completing the above steps, more resources must be provided to achieve further improvements in the system performance.
5. *If a constraint has been "broken" in the above steps, return to step 1:* Assess to see if another operation or policy has become the system constraint. This is because after a constraint is changed, new system constraints may surface. Return to step 1 to identify new constraints.

5.3.4 Conduct Cost-Benefit Analysis on each constraint

Among the several quantitative approaches to decision making which have become popular in recent years, cost-benefit analysis (CBA) is the most widely used. The use of this technique has increased enormously in terms of both the number and variety of problems addressed as it has been urged on administrators as a tool for doing policy studies (Mustafa, 1994). CBA is the systematic and analytical process of comparing benefits and costs in evaluating the desirability of a project or programme, often of a social nature. It attempts to answer such questions as whether a proposed project is worthwhile, the optimal scale of proposed project and the relevant constraints (including financial, legal, among others) (Mishan and Quah, 2007; Florio, 2007). According to Nas (1996), CBA proceeds in four essential steps: Identification of relevant costs and benefits, Measurement of costs and benefits, Comparison of cost and benefits streams accruing during the lifetime of a project, and Project selection. Therefore, CBA in all areas of research is used as part of wider evaluation of the impacts of a project (Jupp, 2006).

5.3.5 Decide on improvement strategy

Managers tend to use their own perceptions of performance, rather than objective values, in order to formulate their own decisions (Bourgeois, 1980). What might be a tremendous success for one company may be a failure for another. Improving from a very good position in the previous year may be much more difficult than improving from a bad position. By asking managers to assess annual performance improvement we expect to capture the degree to which performance has matched managers' aspirations for a particular year. In this way it will be possible to have as a reference the boundary line between perceived success and failure and, consequently, to capture the starting point in decision making (Greve, 1998).

Furthermore, by asking managers about the annual performance improvement, they will be able to report on their perception of change from one year to the next while taking into consideration their own perception of their firm's reference groups (including their firm's circumstance in terms of size, industry, stage of export involvement, technology intensity, and the characteristics of the foreign market).

5.3.6 Publish performance plan

Finally after applying these steps, the system publishes its performance plan in order to apply performance planning.

5.4 Model description

The system could be any organized assembly of resources and procedures united and regulated by interaction or interdependence to accomplish a set of specific functions. In addition to collection of personnel, equipment, and methods organized to accomplish a set of specific functions (Institute for telecommunication science, 2008).

In the "*Manage Performance Process*", the higher level system gives the objectives to performance planning, monitors the performance of a system, and makes decision about what the system should do (Bredrup, 1995; Bititci *et al*., 1997; Armstrong, 2006; Amaratunga and Baldry, 2002).

Then in "*Plan Performance Process*" theory suggests that SMART goals are necessary in order to prevent the diffusion of organizational energy (Kaplan, 2001). By quantifying goals and measuring whether they are achieved, organizations reduce and eliminate confusion about objectives, and gain coherence in pursuit of their mission. The planning process stresses concern for goal congruence by making sure that all departments objectives and goals are within, consistent with and contribute to the achievement of the whole institutional mission and goals.

Due to the need to know where one is and where one wants to be, adapting to technological change, policy change, change in job responsibilities, external factors like new laws and regulations, all demand a thorough process of monitoring and enhancing skills. Performance gap analysis helps identify the reasons causing the gap and taking appropriate steps to reduce it, in addition to improving the effectiveness and efficiency of employees, ensuring target achievement, facilitating easy adaptability to change, concentrating on individual employee performance improvement and team performance improvement, and then an overall corporate performance improvement will result (Parasuraman *et al*., 1985; Schlessenger and Heskett, 1991; Norman, 1983; Bitner *et al*., 1990; Lewis and Entwistle, 1990).

After that the system has to decide which of these removable constraints has the priority to be removed - that provides services of the highest quality at the lowest cost. It is therefore essential that a cost-benefit analysis be carried out which listed all costs and benefits of the constraints to enable a proper comparative assessment of alternative delivery approaches and make a decision accordingly. In other words, the system urgently needs to weigh the costs involved in remaining those constraints against the benefits received by moving them (Allan and Andrews, 1999; Holt and Elliott, 2003). Finally after applying these steps, the system publishes its performance plan in order to apply performance planning (Armstrong, 2006).

Subsequently in "*Performance Monitoring Process*" periodical measures for a project's progress toward explicit short- and long-term objectives are done and giving feedbacks on the results to decision makers who can use the information in various ways to improve performance (World Bank, 1996).

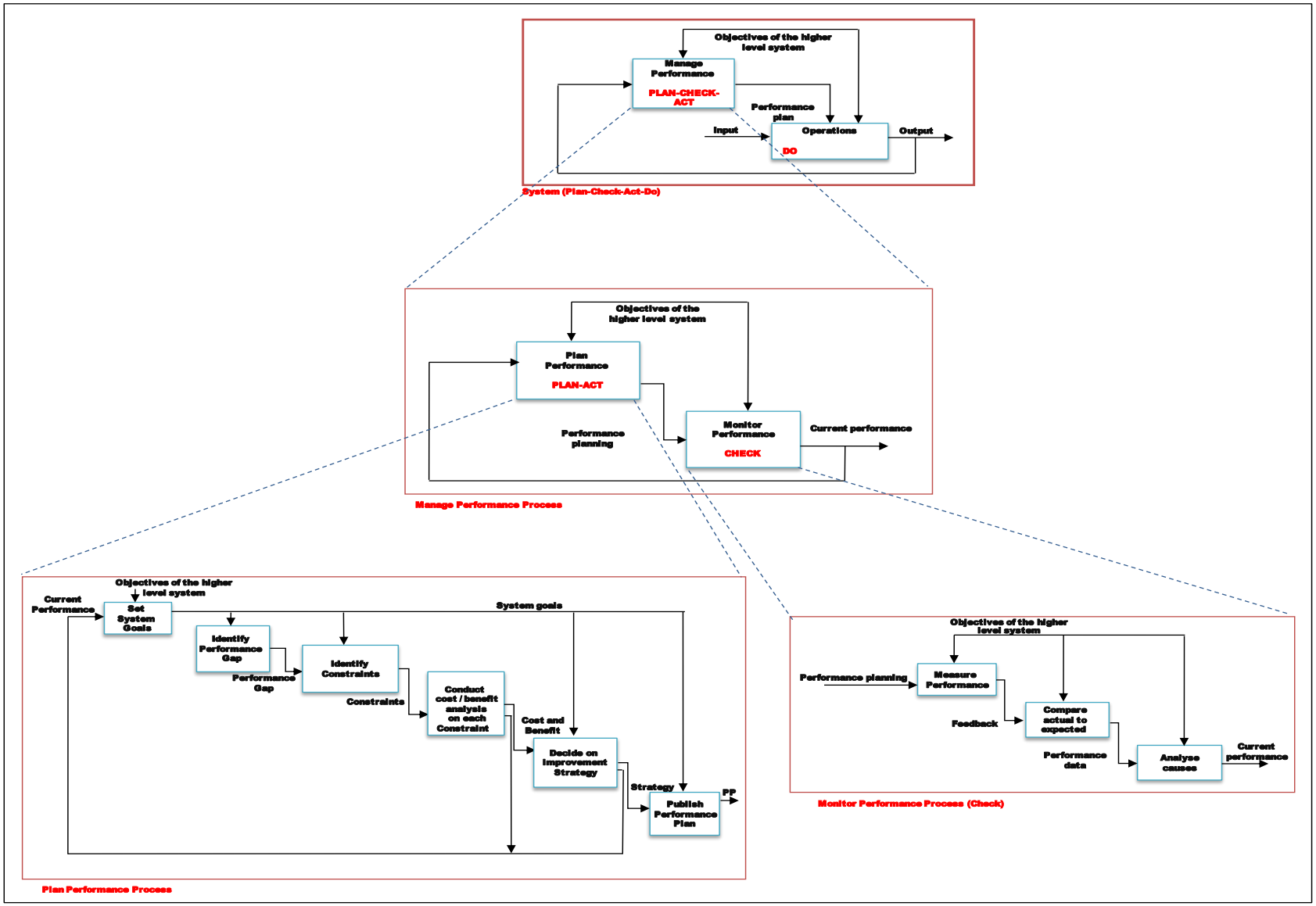


Figure 5.1: Deriving an IDEF0-like for PP Model

In order to explain the model, an example of overall restaurant service has been used to assist in illustrating the performance planning model steps.

Set system goals

The manager of the restaurant set the restaurant's goals as "service time, customer satisfaction, number of customers, and profit".

Identify Performance Gap

The manager of the restaurant compares the current performance level of the restaurant through "customer satisfaction questionnaire" in comparison to the restaurant needs and goals to find the gap between "what is" and "what should be".

Identify Performance Constraints

The manager of the restaurant found out the actual constraints that led to the gap which are divided into two parts. First: un-controllable constraints (the traffic jam which cannot be controlled). Second: controllable constraints (delivery vehicle, driver, and the holder of the food).

Conduct Cost-Benefit Analysis on each constraint

The manager of the restaurant conduct cost-benefit analysis on each constraint to know how much do these constraints cost him and which of them can be removed or corrected.

Decide on improvement strategy

The manager of the restaurant after applying the cost benefit analysis decided to increase the delivery time to 45 minutes instead of 30 minutes, buy new delivery vehicles to avoid any break downs while delivering, give attention to the driver to take care of his work, and enhance the holder of the food with new type to keep the food hot.

Publish performance plan

The manager of the restaurant finally publishes the performance plan to all the employees in order to achieve the restaurant's goals.

5.5 Conclusion

In this chapter, the types of models are introduced like: Verbal Models, Analogue Models, Schematic Models, Mathematical Models, Analytical Models, Descriptive Models, Normative Models, and Process Models. Then from the literature review of the models' uses, the researcher found that the most appropriate type to be used for the development of the performance planning model is a process model, specifically an IDEF0-like technique to model the activities and the flow between these activities in the performance management process with an emphasis on performance planning. This chapter gave a description to the "Process Model for Performance Planning" and how every step should be established by giving an example in order to make its use simple.

In the next chapter, the model will be assessed and the relationship between completeness of the performance planning process and attained performance will be assessed through 34 case studies in two different organisations.

CHAPTER 6

EXPLORING THE RELATIONSHIP BETWEEN

PERFORMANCE PLANNING AND PERFORMANCE

6.1 Introduction

The purpose of this chapter is to apply an empirical study to investigate the relationship between completeness of the performance planning process and the performance of the systems. In doing this the validity of the performance planning process is also tested across 34 systems in two different organisations, Arab Academy for Science, Technology and Maritime Transport (AASTMT) [encompassing 5 faculties and 22 departments (i.e. 27 systems)] and Cairo Bank "Banque Du Caire" [(encompassing 7 branches in Alexandria, Egypt (i.e. 7 systems)]. The following sections present the results across all 34 cases.

6.2 Case studies

6.2.1 An Introduction to AASTMT

The University of Arab Academy for Science, Technology and Maritime Transport was chosen as mentioned before in Chapter (4). The Arab Academy for Science, Technology and Maritime Transport is a Specialized Public Sector Institution under the support of the Arab League, engaged in teaching, training, research and community services.

It is based in Alexandria/Cairo/Upper Egypt (Egypt) and Latakia (Syria). The Academy is a multifaceted institution with a diversity of functions serving an international student population coming mainly from Arab and African countries. Since the Academy's inception in 1972 as the Arab Academy for Maritime Transport, it has been educating, training, and qualifying students in all disciplines of science and technology related to the various aspects of the maritime industry.

Through its open-channel educational and training system, AASTMT offers Master degrees and Diplomas in Marine Engineering, Electronics and Communications Engineering, Computer Engineering, Mechanical Engineering, Industrial Engineering, and Operations Research, in addition to Master degrees in International Transport and Logistics, Protection of Marine Environment and Maritime Law. AASTMT also offers Master of Business Administration (MBA) and Diploma (Academic, Professional and Business). Furthermore, the Academy offers comprehensive professional training programs in the fields of Management, Economics, Marine Transport, Ports Operation, and Engineering & Technology. These specialized short-term and long-term programs are either held independently or under the supervision of national, regional and international agencies.

The interviews were conducted with 5 Deans and 22 head of departments (as shown in Table 6.1) during the period from June, 2008 - March, 2009 to identify the level of performance and the level of completeness of the performance planning process as well as to test the level of agreement with the proposed model. Each interview lasted approximately 1 to 2 hours.

Table 6.1: The Sample of the Study

Departments/systems	No. head of departments	No. of Deans
College of Maritime Transport and Technology		1
The Nautical Engineering Department	1	
Marine Engineering Technology	1	
Marine Safety	1	
Maritime Post-Graduate Studies	1	
College of International Transport and Logistics		1
Department of Business Logistics &International Transport	1	
Department of Maritime Transport Management	1	
College of Engineering and Technology		1
Marine and Mechanical Engineering	1	
Electronics & Communications Engineering	1	
Computer Engineering	1	
Electrical & Control Engineering	1	
Construction & Buildings Engineering	1	
Industrial & Management Engineering	1	
Architectural Engineering & Environmental Design	1	
Basic and applied science Department	1	
College of Computing and Information Technology		1
Computer Science	1	
Information Systems	1	
College of Management and Technology		1
Marketing Management	1	
Management Information Systems	1	
E-commerce	1	
Hotel and Tourism Management	1	
Financial Management	1	
Languages & Humanities	1	

Figure (6.1) shows the hierarchy of AASTMT to demonstrate where each system fits and the systems studied are highlighted in pink.

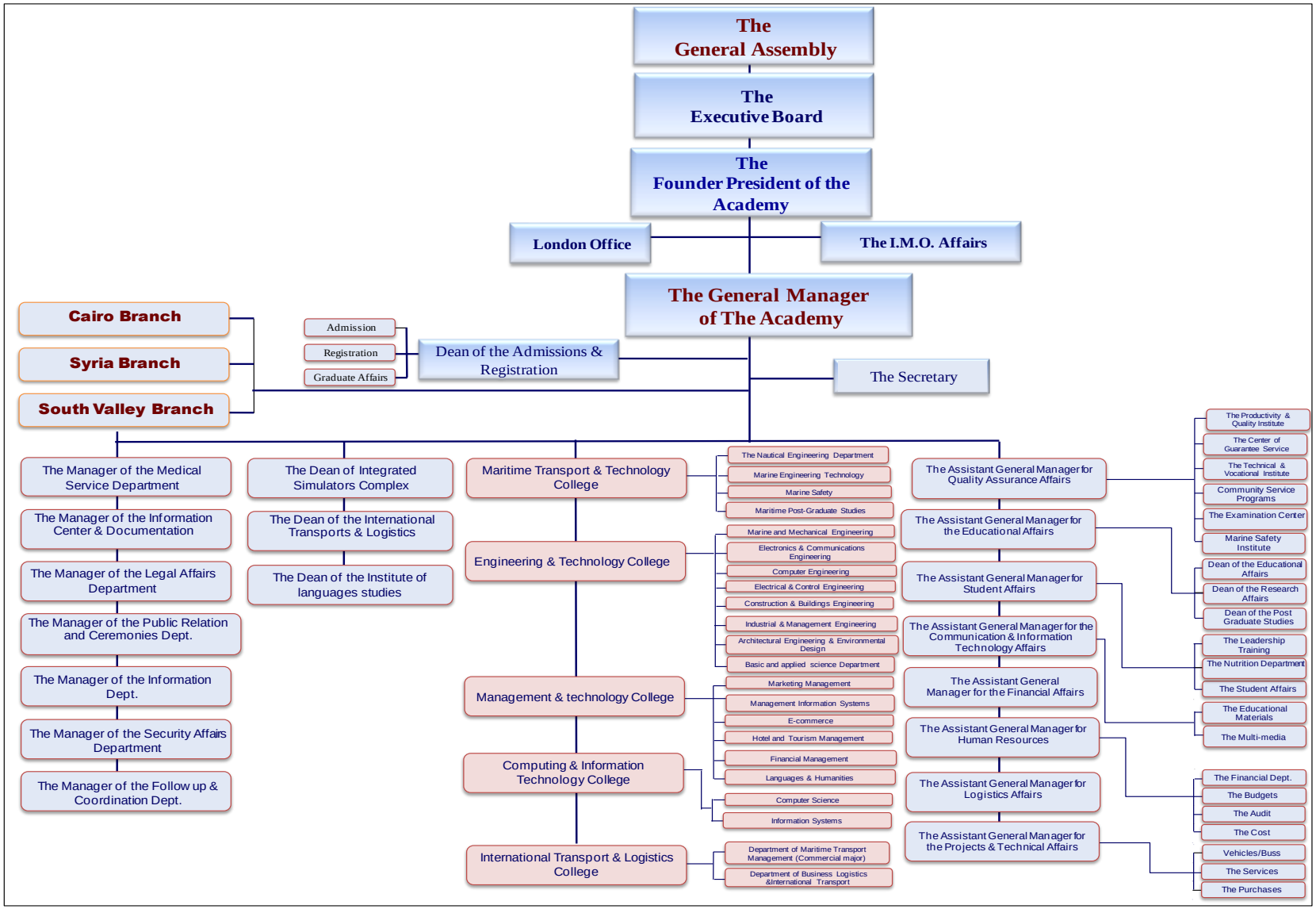


Figure 6.1: Hierarchy of AASTMT

6.2.2 An Introduction to Banque Du Caire

Banque Du Caire has been serving the national economy for 46 Years and has more than 230 branches, offices and units all over Egypt, uniquely distinguished by having five branches in the Gulf Area: Abu Dhabi, Dubai, Sharjah, Ras Elkheima & Manama (Bahrain), as well as equity participation in 12 banks inside Egypt. BdC was established as a private company in 1952, the year of Egypt's revolution, at a time when foreign banks dominated the banking sector. However, the Suez Crisis of 1956 led to "Egyptianization" measures by the government in 1957. It was under this context that BdC acquired the Egyptian operations of two French banks, Comptoire Nationale d'Escompte de Paris and Credit Lyonnais. In 1960, Banque Misr and the National Bank of Egypt were nationalized, followed by BdC in 1961. Since that time, BdC has remained 100 percent owned by the Government of Egypt and operates under the auspices of the Ministry of Finance.

In 1964, the government established a system of Sectoral specialization among state-owned banking banks. BdC specialized in financing foreign trade, housing and public utilities, and information and tourism. In 1971, the Government of Egypt restructured the banking system, under which BdC was specialized in the services and construction sectors. This gave BdC strong business ties with public sector institutions in the contracting, housing, tourism, insurance, healthcare, and transport sectors. The liberalization of the banking sector in the 1990s prompted BdC to expand its client base to private sector clients, primarily larger corporations, and offer a broader range of products and services.

In 2000, BdC experienced major loan defaults in the private sector. BdC extended EGP 12 billion in unsecured loans to 37 businessmen from 1991 to 1999, many of whom defaulted or fled the country. After 2000, the Government of Egypt ceased discussion of privatization and decided to hire executives from private-sector banks to manage the reform efforts at state-owned banks. Banque Du Caire has 13 branches at Alexandria, Egypt and five departments at each branch; the interviews were conducted with 7 heads of "Operational Departments" at 7 different branches (as shown in Table 6.2) during the period from June, 2008 - March, 2009 to identify the level of performance, and the level of completeness of the performance planning process as well as to test the level of agreement with the proposed model. Each interview lasted approximately 1 to 2 hours.

Table 6.2: The Sample of the Study

Operator Department	
Branch 1 (B1)	Salah Salem Branch
Branch 2 (B2)	Sizostrees Branch
Branch 3 (B3)	Gleem Branch
Branch 4 (B4)	Ekbal Branch
Branch 5 (B5)	Montazah Branch
Branch 6 (B6)	Ebrahimia Branch
Branch 7 (B7)	Smouha Branch

Figure (6.2) shows the hierarchy of Banque Du Caire to demonstrate where each system fits and the systems studied are highlighted in pink.

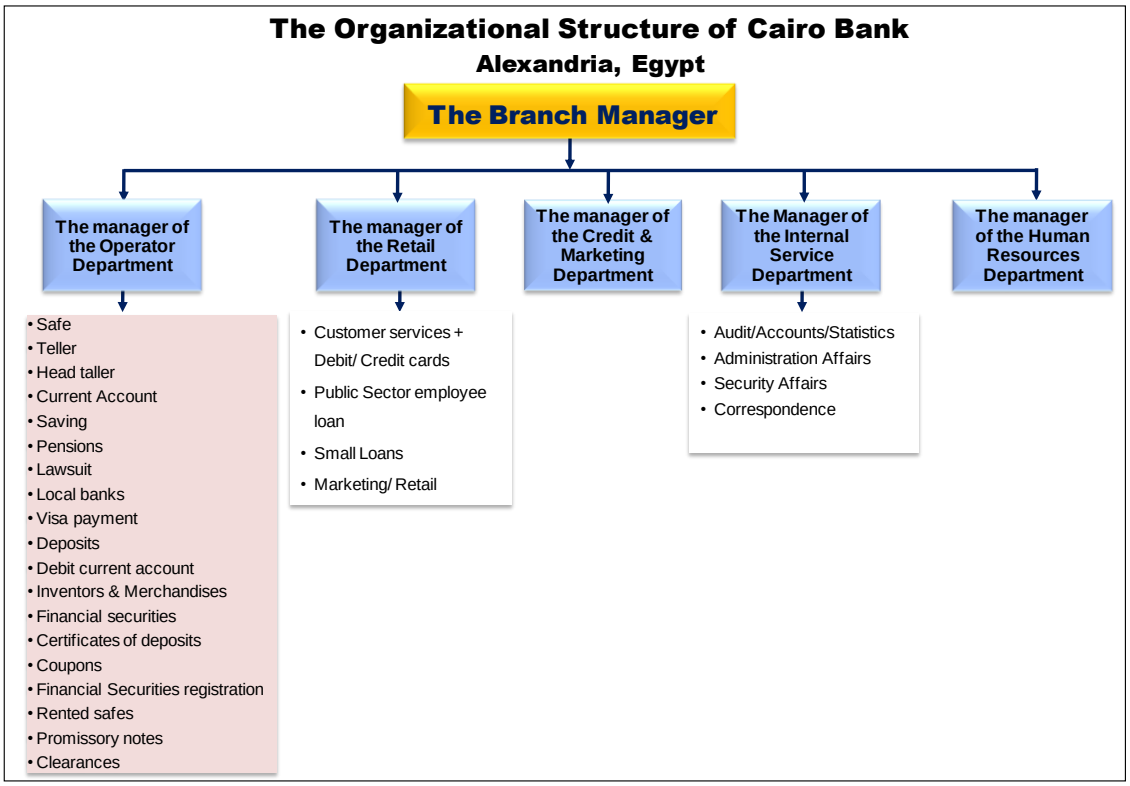


Figure 6.2: Hierarchy of "Banque Du Caire"

6.3 Results

In this section, the researcher will illustrate the results of the survey conducted which will be discussed in greater detail later in section 6.4.

6.3.1 Assessing the level of Agreement

The researcher used the six activities of the model to assess the model across 27 systems at AASTMT and 7 systems at Banque Du Caire by using binary results of the type YES/NO (Agree/Disagree). Figure (6.3) and Table (6.3) illustrate the percentage level of agreement across the 34 systems for each phase of the performance planning process where the level of agreement ***declines along the process activities***. Accordingly, based on these results all the 34 systems show *higher* levels of agreement for the first three activities (i.e. Set system goals, Identify Performance Gap and Identify Constraints) and *lower* levels of agreement for the latter three activities (i.e. Conduct Cost/Benefit analysis on each constraint, Decide on improvement strategy and Publish performance plan).

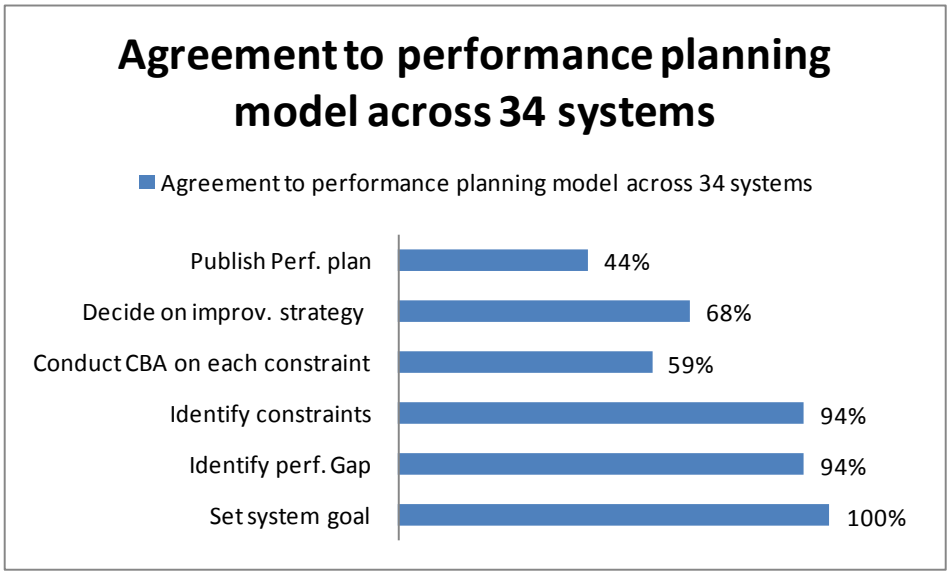


Figure 6.3: Agreement to performance planning model across *34 systems*

Table 6.3: Agreement to performance planning model across *34 systems*

System	Set system goal	Identify perf. Gap	Identify perf. constraints	Conduct CBA on each constraint	Decide on improv. strategy	Publish Perf. plan	Agreement percentage
A1	1	1	0	0	1	1	67%
A2	1	1	1	1	1	1	100%
A3	1	1	1	1	1	1	100%
A4	1	1	1	1	1	0	83%
A5	1	1	1	1	1	1	100%
A6	1	1	1	1	1	0	83%
A7	1	0	1	1	1	0	67%
A8	1	0	1	1	1	1	83%
A9	1	1	1	0	1	0	67%
A10	1	1	0	0	1	0	50%
A11	1	1	1	1	0	0	67%
A12	1	1	1	1	1	0	83%
A13	1	1	1	0	0	0	50%
A14	1	1	1	0	0	0	50%
A15	1	1	1	0	0	0	50%
A16	1	1	1	1	1	1	100%
A17	1	1	1	1	1	1	100%
A18	1	1	1	0	0	1	67%
A19	1	1	1	1	1	1	100%
A20	1	1	1	0	0	0	50%
A21	1	1	1	1	0	0	67%
A22	1	1	1	1	1	1	100%
A23	1	1	1	1	1	1	100%
A24	1	1	1	0	1	1	83%
A25	1	1	1	0	1	1	83%
A26	1	1	1	1	1	0	83%
A27	1	1	1	0	0	0	50%
B1	1	1	1	1	1	1	100%
B2	1	1	1	1	1	1	100%
B3	1	1	1	1	1	0	83%
B4	1	1	1	1	1	0	83%
B5	1	1	1	0	0	0	50%
B6	1	1	1	0	0	0	50%
B7	1	1	1	0	0	0	50%

6.3.2 Completeness of the performance planning process and the performance of systems

In order to investigate the relationship between performance levels achieved (Performance) and completeness of the performance planning process (Completeness) the relationship was ranked from positive to negative, defined as follows:

- *Positive relationship* means that there is a mutually supporting relationship between completeness of the performance planning process (Completeness) and the performance of the systems that are being studied (Performance), i.e. *high levels of completeness* is associated with *high performance* and *low levels of completeness* are associated with *low performance levels*.
- *Negative relationship* means that the relationship between Completeness and Performance clearly conflicting, i.e. *high levels of completeness* is associated with *low performance levels* and *low levels of completeness* are associated with *high performance levels*.

Performance levels for each system (27 in AASTMT and 7 in Banque Du Caire) was expressed in terms of percentages based on the KPIs defined for each system (20 KPIs in case of AASTMT and 7 in case of Banque Du Caire) as shown in appendix (1) and (2). Each KPI for each system was evaluated by the interviewees according to a three-point Likert scale (3 is Good- 2 is Satisfactory- 1 is Bad). The percentage performance level of a system was computed as an *average* of the performance levels achieved across all KPIs for that system.

The completion level of the process was expressed in terms of *percentage* based on the completeness of each one of the six steps of the performance planning process. The completeness of each step was evaluated by the interviewees on a binary scale, i.e. "Yes – that activity/step takes places in the system" or "No – that activity/step does not take place in the system".

As both Completeness and Performance were expressed in term of percentage it was possible to analyse the difference between percentage of Completeness and percentage of Performance where a *low difference* would indicate a *positive relationship* and a *high difference* would indicate a *negative relationship*.

This analysis was conducted for the entire performance planning process comprising of six activities as well as for each one of the six activities separately. The same analysis was also conducted for the first three and the last three activities of the process.

This analysis was motivated by the fact that the level of agreement with the first half of the process was significantly higher when compared to the second half of the process as described in section 6.3.1 above. The results of the analysis are shown in Tables 6.4 through to 6.12.

The analysis presented in these tables are not intended as statistical analysis of results but merely a convenient way of analysing and illustrating the nature of the relationship between Completeness and Performance in a qualitative manner. As such this analysis should be treated as a qualitative analysis rather than a statistical or quantitative analysis of the relationships between Completeness and Performance.

Table 6.4: The relationship between the completeness of *whole* performance planning process and performance

Symbol	Sample	Performance	Completeness	Difference	
A27	Languages & Humanities	52%	50%	2%	Tending towards Positive relationship
A6	The Nautical (Marine) Engineering Department	45%	50%	5%	
B5	Montazah	56%	50%	6%	
B1	Salah Salem	94%	83%	11%	
A2	College of International Transport and Logistics	62%	50%	12%	
A24	E-commerce	47%	33%	14%	
A14	Computer Engineering	65%	50%	15%	
B6	Ebrahemyja	50%	33%	17%	
A15	Electrical & Control Engineering	67%	50%	17%	
A26	Financial Management	52%	33%	19%	
A11	Department of Maritime Transport Management	57%	33%	24%	
A25	Hotel and Tourism Management	60%	33%	27%	
B3	Glim	56%	83%	27%	
B4	El Ekbal	94%	67%	27%	
A9	Maritime Post-Graduate Studies	47%	17%	30%	
A19	Basic and applied science Department	63%	33%	30%	
A12	Marine and Mechanical Engineering	80%	50%	30%	
A18	Architectural Engineering & Environmental Design	83%	50%	33%	
A21	Information Systems	50%	17%	33%	
B2	Sesostris	100%	67%	33%	
A8	Marine Safety	52%	17%	35%	Tending towards Negative relationship
A22	Marketing Management	52%	17%	35%	
A7	Marine Engineering Technology	53%	17%	36%	
A20	Computer Science	53%	17%	36%	
A4	College of Computing and Information Technology	70%	33%	37%	
A23	Management Information Systems	70%	33%	37%	
A1	College of Maritime Transport and Technology	57%	17%	40%	
A3	College of Engineering and Technology	90%	50%	40%	
A10	Department of Business Logistics &International Transport	58%	17%	41%	
A13	Electronics & Communications Engineering	82%	33%	49%	
A16	Construction & Buildings Engineering	83%	33%	50%	
A17	Industrial & Management Engineering	83%	33%	50%	
B7	Smouha	100%	50%	50%	
A5	College of Management and Technology	90%	33%	57%	

Table 6.5: The relationship between the completeness of "Set system goals" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of set system goals	Difference	
B2	Sesostris	100%	100%	0%	Tending towards Positive relationship
B7	Smouha	100%	100%	0%	
B1	Salah Salem	94%	100%	6%	
B4	El Ekbal	94%	100%	6%	
A3	College of Engineering and Technology	90%	100%	10%	
A5	College of Management and Technology	90%	100%	10%	
A18	Architectural Engineering & Environmental Design	83%	100%	17%	
A13	Electronics & Communications Engineering	82%	100%	18%	
A12	Marine and Mechanical Engineering	80%	100%	20%	
A4	College of Computing and Information Technology	70%	100%	30%	
A15	Electrical & Control Engineering	67%	100%	33%	
A2	College of International Transport and Logistics	62%	100%	34%	
A19	Basic and applied science Department	63%	100%	37%	
A25	Hotel and Tourism Management	60%	100%	40%	
A10	Department of Business Logistics &International Transport	58%	100%	42%	
A11	Department of Maritime Transport Management	57%	100%	43%	
A1	College of Maritime Transport and Technology	57%	100%	43%	
B3	Glim	56%	100%	44%	
B5	Montazah	56%	100%	44%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
A20	Computer Science	53%	100%	47%	
A27	Languages & Humanities	52%	100%	48%	
A26	Financial Management	52%	100%	48%	
B6	Ebrahemyja	50%	100%	50%	
A21	Information Systems	50%	0%	50%	
A8	Marine Safety	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A24	E-commerce	47%	100%	53%	
A14	Computer Engineering	65%	100%	53%	
A7	Marine Engineering Technology	53%	0%	53%	
A6	The Nautical (Marine) Engineering Department	45%	100%	55%	
A23	Management Information Systems	70%	0%	70%	
A16	Construction & Buildings Engineering	83%	0%	83%	
A17	Industrial & Management Engineering	83%	0%	83%	Tending towards Negative relationship

Table 6.6: The relationship between the completeness of "Identify Performance Gap" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of Identify Performance Gap	Difference	
B7	Smouha	100%	100%	0%	Tending towards Positive relationship
B1	Salah Salem	94%	100%	6%	
B4	El Ekbal	94%	100%	6%	
A3	College of Engineering and Technology	90%	100%	10%	
A5	College of Management and Technology	90%	100%	10%	
A18	Architectural Engineering & Environmental Design	83%	100%	17%	
A16	Construction & Buildings Engineering	83%	100%	17%	
A17	Industrial & Management Engineering	83%	100%	17%	
A13	Electronics & Communications Engineering	82%	100%	18%	
A12	Marine and Mechanical Engineering	80%	100%	20%	
A4	College of Computing and Information Technology	70%	100%	30%	
A23	Management Information Systems	70%	100%	30%	
A15	Electrical & Control Engineering	67%	100%	33%	
A14	Computer Engineering	65%	100%	35%	
A19	Basic and applied science Department	63%	100%	37%	
A2	College of International Transport and Logistics	62%	100%	38%	
A25	Hotel and Tourism Management	60%	100%	40%	
A11	Department of Maritime Transport Management	57%	100%	43%	
B5	Montazah	56%	100%	44%	
B3	Glim	56%	100%	44%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
A27	Languages & Humanities	52%	100%	48%	
A26	Financial Management	52%	100%	48%	
A22	Marketing Management	52%	100%	48%	
B6	Ebrahemyja	50%	0%	50%	
A21	Information Systems	50%	100%	50%	
A8	Marine Safety	52%	0%	52%	
A24	E-commerce	47%	100%	53%	
A7	Marine Engineering Technology	53%	0%	53%	
A20	Computer Science	53%	0%	53%	
A6	The Nautical (Marine) Engineering Department	45%	100%	55%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
B2	Sesostris	100%	0%	100%	Tending towards Negative relationship

Table 6.7: The relationship between the completeness of "Identify Constraints" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of Identify Constraints	Difference	
B2	Sesostris	100%	100%	0%	Tending towards Positive relationship
B7	Smouha	100%	100%	0%	
B1	Salah Salem	94%	100%	6%	
B4	El Ekbal	94%	100%	6%	
A3	College of Engineering and Technology	90%	100%	10%	
A18	Architectural Engineering & Environmental Design	83%	100%	17%	
A16	Construction & Buildings Engineering	83%	100%	17%	
A17	Industrial & Management Engineering	83%	100%	17%	
A12	Marine and Mechanical Engineering	80%	100%	20%	
A23	Management Information Systems	70%	100%	30%	
A15	Electrical & Control Engineering	67%	100%	33%	
A14	Computer Engineering	65%	100%	35%	
A2	College of International Transport and Logistics	62%	100%	38%	
B5	Montazah	56%	100%	44%	
B3	Glim	56%	100%	44%	
A24	E-commerce	47%	0%	47%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
A7	Marine Engineering Technology	53%	100%	47%	
A27	Languages & Humanities	52%	100%	48%	
A8	Marine Safety	52%	100%	48%	
B6	Ebrahemyja	50%	100%	50%	
A21	Information Systems	50%	0%	50%	Tending towards Negative relationship
A26	Financial Management	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A20	Computer Science	53%	0%	53%	
A6	The Nautical (Marine) Engineering Department	45%	100%	55%	
A11	Department of Maritime Transport Management	57%	0%	57%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
A25	Hotel and Tourism Management	60%	0%	60%	
A19	Basic and applied science Department	63%	0%	63%	
A4	College of Computing and Information Technology	70%	0%	70%	
A13	Electronics & Communications Engineering	82%	0%	82%	
A5	College of Management and Technology	90%	0%	90%	

Table 6.8: The relationship between the completeness of "Conduct CBA on each constraint" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of Conduct CBA on each constraint	Difference	
B2	Sesostris	100%	100%	0%	Tending towards Positive relationship
B1	Salah Salem	94%	100%	6%	
B4	El Ekbal	94%	100%	6%	
B3	Glim	56%	100%	44%	
A6	The Nautical (Marine) Engineering Department	45%	0%	45%	
A24	E-commerce	47%	0%	47%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
B6	Ebrahemyja	50%	0%	50%	
A21	Information Systems	50%	0%	50%	
A26	Financial Management	52%	0%	52%	
A27	Languages & Humanities	52%	0%	52%	
A8	Marine Safety	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A7	Marine Engineering Technology	53%	0%	53%	
A20	Computer Science	53%	0%	53%	
B5	Montazah	56%	0%	56%	
A11	Department of Maritime Transport Management	57%	0%	57%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
A25	Hotel and Tourism Management	60%	0%	60%	
A2	College of International Transport and Logistics	62%	0%	62%	Tending towards Negative relationship
A19	Basic and applied science Department	63%	0%	63%	
A14	Computer Engineering	65%	0%	65%	
A15	Electrical & Control Engineering	67%	0%	67%	
A4	College of Computing and Information Technology	70%	0%	70%	
A23	Management Information Systems	70%	0%	70%	
A12	Marine and Mechanical Engineering	80%	0%	80%	
A13	Electronics & Communications Engineering	82%	0%	82%	
A16	Construction & Buildings Engineering	83%	0%	83%	
A17	Industrial & Management Engineering	83%	0%	83%	
A18	Architectural Engineering & Environmental Design	83%	0%	83%	
A3	College of Engineering and Technology	90%	0%	90%	
A5	College of Management and Technology	90%	0%	90%	
B7	Smouha	100%	0%	100%	

Table 6.9: The relationship between the completeness of "Decide on improvement strategy" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of Decide on improvement strategy	Difference	
B2	Sesostris	100%	100%	0%	Tending towards Positive relationship
B3	Glim	56%	100%	44%	
A6	The Nautical (Marine) Engineering Department	45%	0%	45%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
A24	E-commerce	47%	0%	47%	
B6	Ebrahemyja	50%	0%	50%	
A21	Information Systems	50%	0%	50%	
A8	Marine Safety	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A26	Financial Management	52%	0%	52%	
A27	Languages & Humanities	52%	0%	52%	
A7	Marine Engineering Technology	53%	0%	53%	
A20	Computer Science	53%	0%	53%	
B5	Montazah	56%	0%	56%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A11	Department of Maritime Transport Management	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
A25	Hotel and Tourism Management	60%	0%	60%	
A2	College of International Transport and Logistics	62%	0%	62%	
A19	Basic and applied science Department	63%	0%	63%	
A14	Computer Engineering	65%	0%	65%	
A15	Electrical & Control Engineering	67%	0%	67%	Tending towards Negative relationship
A4	College of Computing and Information Technology	70%	0%	70%	
A23	Management Information Systems	70%	0%	70%	
A12	Marine and Mechanical Engineering	80%	0%	80%	
A13	Electronics & Communications Engineering	82%	0%	82%	
A16	Construction & Buildings Engineering	83%	0%	83%	
A17	Industrial & Management Engineering	83%	0%	83%	
A18	Architectural Engineering & Environmental Design	83%	0%	83%	
A3	College of Engineering and Technology	90%	0%	90%	
A5	College of Management and Technology	90%	0%	90%	
B1	Salah Salem	94%	0%	94%	
B4	El Ekbal	94%	0%	94%	
B7	Smouha	100%	0%	100%	

Table 6.10: The relationship between the completeness of "Publish performance plan" activity of performance planning process and performance

Symbol	Sample	Performance	Completeness of Publish performance plan	Difference	
B1	Salah Salem	94%	100%	6%	Tending towards Positive relationship
A6	The Nautical (Marine) Engineering Department	45%	0%	45%	
A24	E-commerce	47%	0%	47%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
B6	Ebrahemyja	50%	0%	50%	
A21	Information Systems	50%	0%	50%	
A27	Languages & Humanities	52%	0%	52%	
A26	Financial Management	52%	0%	52%	
A8	Marine Safety	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A7	Marine Engineering Technology	53%	0%	53%	
A20	Computer Science	53%	0%	53%	
B5	Montazah	56%	0%	56%	
B3	Glim	56%	0%	56%	
A11	Department of Maritime Transport Management	57%	0%	57%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
A25	Hotel and Tourism Management	60%	0%	60%	
A2	College of International Transport and Logistics	62%	0%	62%	
A19	Basic and applied science Department	63%	0%	63%	
A14	Computer Engineering	65%	0%	65%	Tending towards Negative relationship
A15	Electrical & Control Engineering	67%	0%	67%	
A4	College of Computing and Information Technology	70%	0%	70%	
A23	Management Information Systems	70%	0%	70%	
A12	Marine and Mechanical Engineering	80%	0%	80%	
A13	Electronics & Communications Engineering	82%	0%	82%	
A18	Architectural Engineering & Environmental Design	83%	0%	83%	
A16	Construction & Buildings Engineering	83%	0%	83%	
A17	Industrial & Management Engineering	83%	0%	83%	
A3	College of Engineering and Technology	90%	0%	90%	
A5	College of Management and Technology	90%	0%	90%	
B4	El Ekbal	94%	0%	94%	
B2	Sesostris	100%	0%	100%	
B7	Smouha	100%	0%	100%	

Table 6.11: The relationship between the completeness of *first three* activities of performance planning process and performance

Symbol	Sample	Performance	Completeness of first three steps	Difference	
B7	Smouha	100%	100%	0%	Tending towards Positive relationship
A4	College of Computing and Information Technology	70%	67%	3%	
A23	Management Information Systems	70%	67%	3%	
A19	Basic and applied science Department	63%	67%	4%	
B1	Salah Salem	94%	100%	6%	
B4	El Ekbal	94%	100%	6%	
A25	Hotel and Tourism Management	60%	67%	7%	
A3	College of Engineering and Technology	90%	100%	10%	
A11	Department of Maritime Transport Management	57%	67%	10%	
A26	Financial Management	52%	64%	12%	
A9	Maritime Post-Graduate Studies	47%	33%	14%	
A13	Electronics & Communications Engineering	82%	67%	15%	
A16	Construction & Buildings Engineering	83%	67%	16%	
A17	Industrial & Management Engineering	83%	67%	16%	
A21	Information Systems	50%	33%	17%	
A24	E-commerce	47%	64%	17%	
B6	Ebrahemyja	50%	67%	17%	
A18	Architectural Engineering & Environmental Design	83%	100%	17%	
A8	Marine Safety	52%	33%	19%	
A22	Marketing Management	52%	33%	19%	
A12	Marine and Mechanical Engineering	80%	100%	20%	
A7	Marine Engineering Technology	53%	33%	20%	
A20	Computer Science	53%	33%	20%	
A5	College of Management and Technology	90%	67%	23%	
A1	College of Maritime Transport and Technology	57%	33%	24%	
A10	Department of Business Logistics &International Transport	58%	33%	25%	
A15	Electrical & Control Engineering	67%	100%	33%	
B2	Sesostris	100%	67%	33%	
A14	Computer Engineering	65%	100%	35%	
A2	College of International Transport and Logistics	62%	100%	38%	
B5	Montazah	56%	100%	44%	
B3	Glim	56%	100%	44%	
A27	Languages & Humanities	52%	100%	48%	
A6	The Nautical (Marine) Engineering Department	45%	100%	55%	Tending towards Negative relationship

Table 6.12: The relationship between the completeness of *last three* activities of performance planning process and performance

Symbol	Sample	Performance	Completeness of last three steps	Difference	
B3	Glim	56%	67%	11%	Tending towards Positive relationship
B1	Salah Salem	94%	67%	27%	
B2	Sesostris	100%	67%	33%	
A6	The Nautical (Marine) Engineering Department	45%	0%	45%	
A24	E-commerce	47%	0%	47%	
A9	Maritime Post-Graduate Studies	47%	0%	47%	
B6	Ebrahemyja	50%	0%	50%	
A21	Information Systems	50%	0%	50%	
A27	Languages & Humanities	52%	0%	52%	
A26	Financial Management	52%	0%	52%	
A8	Marine Safety	52%	0%	52%	
A22	Marketing Management	52%	0%	52%	
A7	Marine Engineering Technology	53%	0%	53%	
A20	Computer Science	53%	0%	53%	
B5	Montazah	56%	0%	56%	
A11	Department of Maritime Transport Management	57%	0%	57%	
A1	College of Maritime Transport and Technology	57%	0%	57%	
A10	Department of Business Logistics &International Transport	58%	0%	58%	
A25	Hotel and Tourism Management	60%	0%	60%	
B4	El Ekbal	94%	33%	61%	
A2	College of International Transport and Logistics	62%	0%	62%	
A19	Basic and applied science Department	63%	0%	63%	
A14	Computer Engineering	65%	0%	65%	
A15	Electrical & Control Engineering	67%	0%	67%	
A4	College of Computing and Information Technology	70%	0%	70%	
A23	Management Information Systems	70%	0%	70%	
A12	Marine and Mechanical Engineering	80%	0%	80%	
A13	Electronics & Communications Engineering	82%	0%	82%	
A18	Architectural Engineering & Environmental Design	83%	0%	83%	
A16	Construction & Buildings Engineering	83%	0%	83%	
A17	Industrial & Management Engineering	83%	0%	83%	
A3	College of Engineering and Technology	90%	0%	90%	
A5	College of Management and Technology	90%	0%	90%	
B7	Smouha	100%	0%	100%	Tending towards Negative relationship

As a result, from the overall results displayed in Table (6.4), the relationship between the Completeness of performance planning process and Performance is *inconclusive* as we cannot say that there is only negative or positive relationship. Similarly, an examination of tables 6.11 and 6.12 illustrating the results for the first half and second half of the process suggest that the relationship between performance and completeness of these activities are inconclusive. However, there appears to be greater tendency towards a positive relationship between the completeness of the first half of the process (i.e. the first three activities) when compared to the second half of the process (i.e. the last three activities) where the tendency is towards more negative relationships. Analysis of the individual activities against completeness yield similar results.

In summary, from these results we can conclude that there is *no direct relationship* between completeness of the performance planning process and the performance of a system. However, there is some evidence that the first three activities (set system goals, identify performance gap, identify system constraints) are tending more towards a positive relationship.

In the following section the researcher will discuss these results in the context of the literature as well as other contextual factors and attempt to provide a degree of explanation of these results.

6.4 Discussion

The objective of this section is to provide an explanation of the results displayed above, based on the author's interpretation, observations and contextual issues in conjunction with the literature review.

The author's assumption during the earlier research work was based on the existence of direct positive relationships, suggesting that a more formalised performance planning process would be associated with better performance. This is certainly the traditional thinking in the performance management literature (Guinn, 1987; Ainsworth and Smith, 1993; Story and Sisson, 1993; McAfee and Champagne, 1993; Bredrup, 1995; Price *et al.*, 2002, 2007; Bacal, 2003; Kent, 2004; McDavid and Hawthorn, 2005; Armstrong, 2006). However, there is a new view emerging which seems to contradict this more traditional view since some authors argue that performance measurement and management is largely associated with command and control style of management and that in the emerging knowledge base employees where people are key resources there is a need for new ways of management (Seddon, 2005; Bititci *et al.*, 2006; Khanna, 2008; Loizos and Papachroni; 2009).

This argument serves to explain the results of this study, since this study is limited to *professional employees* (who are essentially knowledge workers). This may explain the different agreement levels between the first and last three activities of performance planning process. First three activities are associated with *target setting* and last three activities are more associated with monitoring and surveillance (i.e. *command and control*). It appears that *professional employees* do not like this; they need less informal approach in order to achieve higher performance. All the 34 cases from AASTMT and "Banque Du Caire" are from the service focused knowledge based employees. It appears that they do not like to be told how to do things, they only need clear targets and objectives then they can manage themselves.

These results indicate that people are more comfortable with the first three activities of performance planning process in a formal manner but they are less comfortable with the last three activities. However, the researcher also believes that relationships between performance and the completeness of the performance planning process are significantly affected by external factors, as outlined below.

With respect to the AASTMT's first three activities of performance planning process appears more complete in comparison to the last three activities as the last three activities seem to be centralised to the "Financial Planning" and "Strategic Management" departments of the AASTMT. Also, in case of Banque Du Caire, the bank's first three activities of the performance planning process appear more complete in comparison to the last three activities. Table (6.13) shows examples to the reply of interviewees[1].

[1] The original quotes were in Arabic and the quotations included in the thesis are the researcher's interpretations of the Arabic quotes.

Table 6.13: Examples to the reply of interviewees

Performance Planning Activities	**AASTMT**	**Banque Du Caire**
Set system goals	*"AASTMT is an Educational organization subject to the rules of 'Supreme Council of Universities' which determines the objectives and controls all universities; in turn the central management at AASTMT set the detailed objectives for individual faculties and departments...".* *"AASTMT set tight framework by establishing the objectives for each faculty and department which reflect the centralized decisions by the Top Management ....".*	*"Banque Du Caire is under the control of the Central Bank which determines the objectives and controls all banks in Egypt; in turn the branch managers set the detailed goals to achieve the overall objectives...".*

Identify Performance Gap	*"... AASTMT attribute the assessment of performance to the 'Productivity and Quality Institute' to determine the gap between planned and actual, therefore most deans and head of departments are keen to know the size of the gap and go on to identify the constraints that prevent higher performance...."*. *"....AASTMT carry out the assessment of performance every three month to follow up each faculty and department to determine the gap between planned and actual but unfortunately there is no making use of performance measures and this assessment not reflect the next cycle so the overall planning is rigid, but on paper work there is an assessment form which should be filled so most deans and head of departments are keen to know the size of the gap....."*.	*"....Then, every head of department identify the gap between the actual performance and the planned performance in order to reduce the gap through setting standards for the employees. Therefore, most heads of departments are keen to know the performance gap...."*
Identify Constraints	*"....For identifying the constraints, in some cases constraints can be easily identified but in other cases it is not attainable and not clearly stated...."*.	*"...then go on to identify the constraints that prevent higher performance. However, as the 'Central Bank' controls all the activities of Banque Du Caire through certain rules and regulations these could hinder the achievement of the objectives...."*

Conduct Cost/Benefit analysis on each constraint	*"....For conducting cost benefit analysis on each constraint, there is no financial division at every faculty or department - there is only the 'Financial Planning' department which has the responsibility for specifying the budget for all the departments at the AASTMT for two years....."*. *"....The 'Financial Planning' department has the responsibility for specifying the budget for all the departments at the AASTMT for two years as well as giving annual evaluation feedback to the General Manager of the AASTMT. Therefore, the deans and the heads of departments are not part of this process and do not play an active role in Financial Planning..."*. *" ..... Also, most deans and head of departments are not enough aware by financial meanings terms so they are not cable to understand the items of the budget. ....."*.	"*....According to the rules of the "Central Bank", the branch manager identifies for every department the cost and the surplus through the department of 'Planning and follow-up'..."*.

Decide on improvement strategy	*".....Moreover, the deans and the heads of departments do not have the right to take any decisions concerning the financial issue without reference to the 'Financial Planning' department. Therefore, the deans and the heads of departments are not part of this process and do not play an active role in Financial Planning....".* *".....For decide on improvement strategy, the deans and the heads of departments can only give suggestion but not formal improvement from their side as it is limited to "Strategic Management" department....".*	*"....The "Central Bank" sets the strategic plans for all the banks and every bank has to commit with it, so the head of departments are not part of this process even if they have negative impact on the performance of each department....*".
Publish performance plan	*"....Also, there is no planning and follow up department at every faculty or department. For publish performance planning, the AASTMT may only publish its performance planning to the Economic Council....And AASTMT is not keen to publish its performance planning to the individuals. Therefore, the deans and the heads of departments are not part of this process". ".....Furthermore, there is 'Strategic Management' department specially for developing strategies for all the departments where the General Manager of AASTMT has a major influence. Here performance planning at individual system level is not encouraged".*	"*...For publish performance planning, Banque Du Caire publishes its financial planning at 3 national Journals every year but not keen to publish its performance planning to the individuals. Therefore, the heads of departments are not part of this process".*

Therefore, due to the nature of the AASTMT as an academic organisation, where academics are bound down with bureaucracy, policies and procedures thus they comply with the minimum governance requirements that are imposed on them. Systems goals and targets are imposed on them by a centralised management system and each Dean or Head of Department understand their constraints but does not do anything about this as it is seen as the responsibility of central administrative departments to formalise budgets and strategies and improvement plans. So it appears that, the central management system of these 27 systems encourage minimum compliance. This is explained by the fact that AASTMT is an academic organisation which is populated by professionals who are interested in getting on with the job (education, research or consultancy) but less concerned or interested in conforming to centrally driven bureaucracy.

Therefore, the main finding in this study is that performance planning has a positive effect on the level of performance on the first three activities rather than the last three activities in the context of this study for *professional employees.* There is clear evidence that the first three activities have more agreement than the last three activities, in fact it is possible that the last three activities constraints the level of motivation and thus the level of performance. Suggesting that implementing the first three activities formally and the last three activities informally specially in *professional, knowledge based* work environments will achieve higher performance (Seddon, 2005; Khanna, 2008; Loizos and Papachroni, 2009).

Also, Looking across the 34 cases in both organizations, AASTMT is an academic institute which is research driven and creative and do not like to be constrained by orders and commands which reflected in their performance completeness, while “Banque Du Caire” is subject to the rules of the “Central Bank” which is managed the same way as manufacturing sector, they are more processes oriented, therefore they are more used to operating with measures and targets and working in this environment. However, they still do not like the *monitoring and surveillance* element but with different percentages than the AASTMT.

Therefore, it can be concluded that the organizational culture and management styles have direct impact on the results as they show low levels of completion of the performance planning process in general (Bititci *et al.*; 2004, 2006).

Another finding when looking across the 34 cases in both organizations is the discovery that centralization is one of the factors that inhibit the performance planning process as most decisions determined by the Top management without involvement of the Middle management (Johnson and Broms, 2000).

Looking back to section (6.3.1) where the author displayed the results of the agreement levels, and noticed that the level of agreement declines along the process. But is higher where it is related to activities where people are being told about objectives and targets. On the other hand, the level of agreement is lower when there are being checked or monitored. Possibly this is related to the same phenomenon discussed above, i.e. *people do not like working in a command and control environment*.

It therefore appears that the results emerging from this research is providing some of the early empirical evidence that in a professional knowledge based work environment too much emphasis on performance management and planning is not helpful specially when they are being checked or monitored and that what seems to be appropriate is that people appreciate guidance in objectives and direction without being told how to achieve this or having systems checking on their performance, they rather be told what needs to be achieved and they go and do it their own way.

From a different perspective looking to extreme cases in AASTMT, it can be found that the Nautical Engineering Department - A6 (as shown in Table 6.3) out of the 27 systems achieves relatively high levels of completeness (50%) associated with low performance levels (45%) in comparison with the other systems as they achieves higher performance with lower completeness.

The low performance and high completeness in Nautical Engineering Department is due to two reasons. According to differences in the KPIs; there are some of the KPIs that are biasing the overall performance score. Examples of the KPIs that *pull down* the overall performance: training of staff, research volume, faculty awards, national academy membership, PhD graduations, and publications and citations per faculty. And examples of the KPIs that *pull up* the overall performance: students' numbers, student credit hours per faculty, staff discipline, numbers of books in the library, distribution of computers in the faculty, and occupation room.

According to external factors; the purpose of AASTMT is the service of Arab States and the establishment of marine staff, so there is no rule for the minimum entry levels for students but only to complete High School. Therefore, the Nautical (Marine) Engineering Department accepts all applicants regardless of their grade in high school which results in low performance. Also, there is the language obstacle since all the study is in English and there are some students who find difficulties with the language in spite of completing English training courses organized for them by the Academy.

Therefore, the low students' capability is considered an obstacle to performance and particularly as these students consumes academic capacity leaving little capacity for enhancing other performance areas such as training of staff, research volume, PhD graduations, and publications. Consequently, it does not matter how much performance planning the organization (AASTMT) has, as the system constrains by external factors (as governmental policy) significantly affect the performance.

Examples of low levels of completeness with high performance level include Industrial & Management Engineering Department – A17 (83% performance and 33% completeness) and Electronics & Communications Engineering Department – A13 (82% performance and 33% completeness).

The high performance and low completeness for these two systems is due to two reasons. According to differences in the KPIs; these two systems are highly emphasised on the KPIs that are pulling the overall performance score up. Examples of the KPIs that *pull up* the overall performance: students' questionnaire, students' numbers, student credit hours per faculty, staff discipline, evaluation of staff, teaching credit hour loading, review of course, review of program, research volume, faculty awards, national academy membership, PhD graduations, numbers of books in the library, distribution of computers in the faculty, occupation room, and use of technology.

According to the opposite factors in the case of Nautical Engineering Department, as these departments require high score in high school; the students' high capability helps in enhancing performance areas such as training of staff, research volume, PhD graduations, and publications. Consequently, all these factors positively affect the level of performance regardless adopting performance planning process.

For the extreme cases in "Banque Du Caire", it can be found that only *Glim Branch - B3* out of the 7 systems growth (as shown in Table 6.3) achieves relatively high levels of completeness (83%) associated with relatively low performance levels (56%). And *Smouha Branch* - B7 achieves low levels of completeness (50% completeness) with high performance levels (100% performance).

The low performance and high completeness at Glim Branch (B3) is due to two reasons. According to differences in the KPIs; there are some of the KPIs that are biasing the overall performance. Examples of the KPIs that *pull down* the overall performance: capital risk and asset quality. And examples of the KPIs that *pull up* the overall performance: profitability, operating efficiency, liquidity risk, and growth.

According to external factors; the impacts of the financial crisis and the adoption of several laws and legislation governing the internal processes in banks, this lead to taking from some heads of department their effective role in the optimal investment of the bank's resources and many of them failed to take some bold decisions which affected the performance of the departments they apply the performance planning process, which in turn affect the accomplishment of the KPIs. Consequently, it does not matter how much performance planning bank has as the system constrained by external factors (as governmental policy) which affect the performance so bank will never have high performance with that constraint.

The high performance and low completeness at the Smouha Branch (*B7)* is due to two reasons. This system is highly dependent on all the 6 KPIs and these are pulling the overall performance score up.

According to external factors; this branch is considered one of the most important branches as this area is a developing area and is considered easily accessible. Therefore, this branch is attracting the qualified personnel from different branches furthermore, all of the bank’s operations can take place at this branch; consequently the performance of highly skilled staff affects the performance. Therefore, as the entire bank’s operation can take place in this branch the KPIs are easily achieved that affect the overall performance. Consequently, all these factors positively affect the level of performance regardless adopting performance planning process.

6.5 Conclusion

The purpose of this chapter was to apply an empirical study to investigate the relationship between completeness of the performance planning process and the performance of the 34 systems. In doing this the validity of the performance planning process was also tested.

The results of the empirical study suggested that:

- Higher level of agreements in the first three activities than in the last three activities of performance planning process which indicates that people are more comfortable with the first three activities of performance planning process in a formal manner but there are less comfortable with formal last three activities.
- At first there appears to be no relationship between completeness of performance planning process and performance. However the findings suggest a *more positive relationship* in the first three activities in comparison to the last three activities.
- The objective and target setting have greater impact than monitoring and control aspects. Suggesting that monitoring and control aspects constraints the level of motivation and the level of performance especially in *professional, knowledge based work* environments.
- The performance planning process seems to be heavily influenced by a number of internal (organisational culture, management style, work force knowledge) and external (regulations) factors that affect the functioning of performance planning process and thus its impact on performance.

The next chapter provides an answer to each of the research questions, shows contribution to knowledge derived from this research and provides a brief summary of the thesis and the findings related to each of the research questions, in addition to the overall quality of the research, limitations of the research, and areas for further research.

CHAPTER 7

DISCUSSION AND CONCLUSION

7.1 Introduction

The purpose of this chapter is to discuss the work done in context of the objectives set and the research questions posed at the start of the research as well as ensuring that its contibution to knowledge is clearly articulated. Also, this chapter will draw this thesis to a conclusion emphasising the overall quality and limitations of the research as well as highlighting areas for further research.

7.2 Overview of the Research

The literature entitled performance planning seems to be mainly focused on planning and managing the performance of the individual. Therefore, as the performance planning interacts with all other processes or activities within the performance management process, it appears to be a central activity and also there appears to be a degree of systems thinking evident in the literature as many authors consider managing performance of different systems, such as an organisation, a process and an individual. Therefore, the key features of a performance planning as a system is that target performance level is known in turn leads to performance planning framework. Then the existing performance measurement models were tested against the criteria stipulated in the framework suggesting that there is a gap in the theory, accordingly the objective of this research is to explore the relationship between performance planning and performance within the overall performance management process.

The paradigm used in this research is typically linked to the qualitative research perspective as this research is attempting to understand the relationship between performance planning and performance within the overall performance management process. The researcher used exploratory research to develop a better understanding, which is increasing the insight, of performance planning aspects of the performance management process. The proposed strategies used in this research are typically linked to the qualitative research perspective and include case study strategy as this research does not require control of behavioural events but rather documenting them. In this research multiple case studies were used in order to assess the model and assess the relationship between completeness of the performance planning process and attained performance in 34 case studies (system) in two different organisations. The researcher, through an interviewing guide, used semi-structured interview in this research to collect the data and allow the interviewees to expand on each of the questions.

The findings of this work are that the relationship between the completeness of performance planning process and performance is *inconclusive*. However, there appears to be greater tendency towards a positive relationship between the objective and target setting aspects when compared to monitoring and control aspects where the tendency is towards more negative relationships.

Accordingly, the objective and target setting aspects seems to have a greater positive impact on performance in comparison to the monitoring and control aspects, suggesting that the performance is not dependent only on performance planning; in fact it is more affected by other internal and external factors, such as culture – management style – workforce skills/knowledge profile – regulations.

7.3 Answers to Research Questions

This section attempts to provide clear answers to the research questions posed throughout this research as presented in the following tables:

Research Question (1): **How does the performance planning framework differ from the existing performance measurement**

Findings: Existing performance measurement models do not adequately represent all areas of performance planning framework. The areas of particular weakness are: identifying performance gap and identifying constraint.

Implications: Better understanding of the weaknesses of existing performance measurement models/frameworks, so this provides an opportunity for practitioners and researchers to make some further development to overcome these weaknesses.

Research Question (2): **How do companies approach the features specified in the performance planning model?**

Findings: *Based on the performance planning model, the knowledge based work force do not like the monitoring and control aspects but they do like the objective and target setting (further explanation in section 7.4.1).*

Implications: There is evidence that the objective and target setting have more agreement than monitoring and control aspects, in fact may be monitoring and control aspects constraints the level of performance and the level of motivation. Suggesting that implementing the objective and target setting formally and the monitoring and control aspects informally specially in professional, knowledge based work environments will achieve higher performance as they need less informal approach in order to achieve higher performance

Research Question (3): **How would more systematic (i.e. formal) use of the performance planning model influence performance?**

Findings: There is *no direct relationship* between Completeness of the performance planning process and the Performance of a system. However, there is some evidence that the *objective and target setting* are tending more towards a positive relationship *(further explanation in section 7.4.1).*

Implications: Recognizing that performance planning has a positive effect on the level of performance on the first three activities which are associated with o*bjective and target setting* rather than the last three activities which are more associated with monitoring and surveillance (i.e. *command and control*) in the context of this study for knowledge based work force as they appreciate guidance in objectives and direction without being told how to achieve this or having systems checking and monitoring on their performance they rather be told what needs to be achieved and they go and do it / deliver it their own way.

7.4 Quality of the Research

It is important to assess this research in order to reach a research quality standard to demonstrate whether this research is valid or not. The following sections discuss the assessment in more detail.

7.4.1 Contribution to knowledge

Fulfilling the requirements of scientific research means that new knowledge has been generated, no matter what research strategy or approach is used. Hence, a vital part of any research work is to relate and compare the research findings with existing knowledge to further prove their novelty. Accordingly, this research has achieved contribution on the *theoretical* side. The literature entitled *performance planning* seems to be mainly focused on performance appraisals and relating individual performance. However, so far there seems to be little literature exploring in detail the performance planning process for any system and not for the individual only (Harrington, 1998; Bacal, 2003; Rudman, 2003). Therefore, this research presents a description for the performance planning process that can be used at different systems, such as an organisation, a process and an individual, not only individuals as argued in the existing literature. Then by assessing the relationship between completeness of performance planning process and performance of the 34 systems at two organizations, it found that the there is *no direct relationship* between completeness of the performance planning process and the performance of a system. However, there is some evidence that the *objective and target setting* aspects are tending more towards a positive relationship in comparison to the *monitoring and control aspects*, suggesting that the performance is not dependent only on performance planning.

As a result, this research presents a better understanding for the relationship between performance planning and performance within the overall performance management process in the context of knowledge based service sector

Also, there are a number of internal (organisational culture, management style, work force knowledge) and external (regulations) factors can affect the functioning of performance planning process and thus its impact on performance.

Figure (7.1) below illustrates the relationships between these factors and performance planning process.

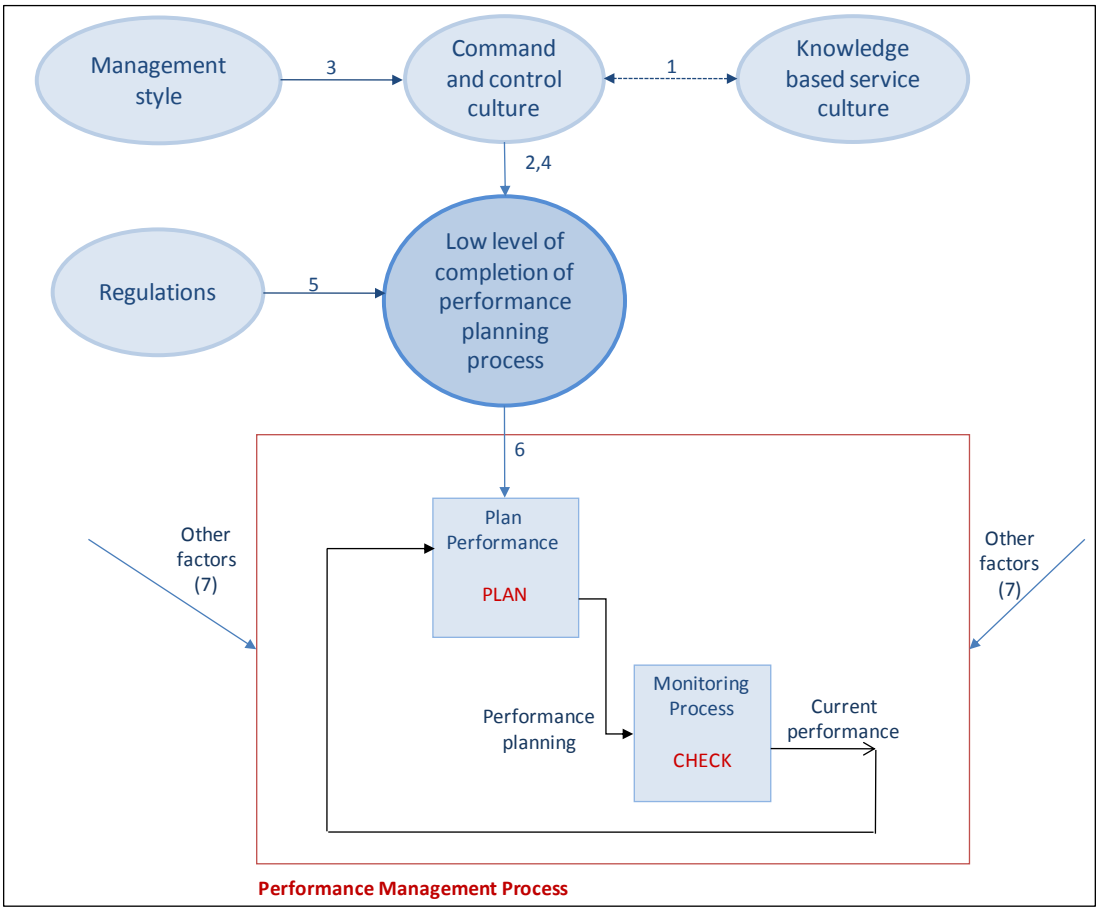


Figure 7.1: The relationships between the contextual factors and performance planning process

Based on this research we are looking for some of the contextual factors that cause the low level of performance planning completion. So both organizations “Arab Academy for Science, Technology and Maritime Transport” and Cairo Bank "Banque Du Caire are knowledge based service organizations, the staff seem to disfavour a command and control culture (1), consequently they do not like being checked or monitored which in turn results in low levels of performance planning completion (2). What seems to be appropriate is that this type of personnel appreciate guidance in objectives and direction without being told how to achieve this or having systems checking on their performance; they rather be told what needs to be achieved and they go and do it/ deliver it their own way. Again both cases have centralized management style (3) where decisions are centralized then these centralized decisions create command and control culture which has a negative impact on knowledge based service culture as the employees feel that there is someone else planning for them, so in turn the low level of performance planning completion (4). Then, there are the regulations (5) that are a constraint which cannot be removed and, combined with the command and control culture lead to apathy and cause the low level of performance planning completion. Clearly, the low level of completeness impacts on the “performance planning process” (6) within the overall performance management process. Finally, performance management process together with other factors (7) influences performance.

The relationships between the contextual factors impacting performance planning completion and performance planning process are illustrated below.

Work force knowledge: Both organizations “Arab Academy for Science, Technology and Maritime Transport” and Cairo Bank “Banque Du Caire” are *knowledge based work force*, who do not like being checked or monitored which in turn creates command and control culture and causes low level of completion for performance planning process (Seddon, 2005; Khanna, 2008; Loizos and Papachroni, 2009).

Organisational culture: Looking across the 34 cases in both organizations, AASTMT is an academic institute where the academic staff are research driven and creative and do not like to be constrained by orders and commands which is reflected in their performance completeness, and "Banque Du Caire" is subject to the rules of the "Central Bank" which is managed the same way as manufacturing sector, the employees are more processes oriented, therefore they are more used to operating with measures and targets and working in this environment. However, they still do not like the *monitoring and surveillance* element but with different percentages than the AASTMT. Therefore, it can be concluded that the organizational culture have direct impact on the results as they show low levels of completion of the performance planning process in general (Lockamy and Cox, 1995; Lingle and Schiemann, 1996; Maisel, 2001; De Waal, 2002; Johnston *et al.* 2002; Malina and Selto, 2002; Bititci *et al.*, 2004, 2006).

Management style: When looking across the 34 cases in both organizations is the discovery that centralization is one of the factors that inhibit the performance planning process as most decisions are taken by Top management without involvement of Middle management. This research also demonstrates that a centralised management style not only conflicts with the knowledge based nature of these case studies but in centralising performance planning process removes the perceived necessity of the process at operational levels (Simon, 1987; Libby and Luft, 1993; Hunton *et al.*, 2000; Johnson and Broms, 2000; Bititci *et al.*, 2004, 2006).

Regulations: AASTMT is an Educational organization subject to the rules of "Supreme Council of Universities" that sets certain legislations and laws which negatively affect the performance and the completion of performance planning process. For Banque Du Caire, the "Central Bank" controls all the activities of the banks through certain rules and regulations, the adoption of these legislations that govern the internal processes in banks, has lead to taking from some heads of department their effective role in the optimal investment of the bank's resources and many of them failing to take some bold decisions which affect the performance of

the departments applying the performance planning process (Hussain and Hoque, 2002).

7.4.2 Rigour of the research process

The Rigour of a research study is demonstrated through a logical and rational research design (Yin, 2003; Easterby-Smith *et al.*, 2002). Generally, four tests are applied to assess the rigour of the research process. These are: *construct validity, internal validity, external validity and reliability.*

7.4.2.1 Construct validity

According to Yin (2003), construct validity refers to the establishment of the appropriate operational measures or variables for the concepts being studied and the research design needs to fully address the research questions and objectives. To increase construct validity, Voss *et al.* (2002) suggest a numbers of tactics, including enfolding literature, use of establishing a chain of evidence, and using multiple sources of evidence. Therefore, the construct in this research is validated based on literature review and data was gathered in 34 cases at two different organisations using a multiple sources of evidence (data collection methods, i.e. semi-structured interviews, documentation, informal discussions).

7.4.2.2 Internal validity

According to Yin (2003), internal validity is concerned with the establishment of causal relationships, in which the researcher determines that certain conditions lead to other. He adds, in pattern matching, an empirically based pattern is compared with a predicted one or with several alternatives predictions; the results of such analysis can help to strengthen the internal validity of the study. This research used *within-case analysis* in order to analyse data from the case studies to find explanations of data. And do pattern matching to compare theoretical patterns stated in the performance planning model with empirical patterns in 34 systems at two different organisations. Therefore the research is considered to be internally validated.

7.4.2.3 External validity

According to Yin (2003), external validity is concerned with knowing whether a study's findings are applicable beyond the immediate case, in other words it refers to the domain to which the research findings can be generalised. In qualitative studies, the researcher uses *theoretical replication logic* to confirm whether the patterns and concepts from one particular case can be applied in other environments instead of traditional sampling methods (Eisenhardt, 1989; Meredith, 1998; Stake, 1995; Yin, 2003). This will enable the researcher to refine, extend and sharpen theory, which has a positive impact on external validity. Other tactics to increase external validity include using multiple case studies (Meredith, 1998; Stake, 1999). During this study, multiple case studies through two organisations during the initial fieldwork study and through 34 cases (systems) at two organisations during the validation of the performance planning model were used. This allowed the researcher to refine and validate the findings by describing and comparing the components of performance planning model. Therefore, the research is considered to be externally validated. But, it remains to be seen whether these findings are applicable to other types of organisations (e.g. manufacturing, sports) and situations where the workforce is largely comprised of non-knowledge based or non professional employees.

7.4.2.4 Reliability

According to Yin (2003), a research is reliable when the process of study is reasonable and consistent over time and when the process, if used by different researchers in the same environment, achieves the same results and draws the same conclusions. He adds one prerequisite for allowing future investigators to repeat an earlier study is a structured documentation and reporting of the procedures followed. Other tactics to deal with reliability include using a case study protocol, case study database, interview guide and pilot case studies. This research has clearly documented the process and logic followed to link the research problem and questions with the final conclusions. The quality criteria to evaluate the research were clearly defined in the early stages of the research as described in Chapter (4).

This led to the adoption of specific tactics (case study protocol, within case analysis and enfolding literature) that demonstrated that the process of data generation and analysis was appropriate. Therefore, the research is considered to be reliable.

Accordingly, the evaluation has shown that this research fulfils the quality criteria. Therefore, the main conclusion is that *this research is valid and reliable*.

7.5 Research Limitations

There is always a limit to what a researcher can achieve during a research study, recognising the limitations of a study strengthens the validity of the findings and the reliability of the research process. The limitations of this research are:

- This research used a case study at Egypt so the results may not be applicable for other environments than Egypt.
- This research applied in Egypt across two sectors (Educational and Banking). It is likely that the findings will be repeatable in organisations from the same sectors in Egypt. But due to limitations of the research methodology employed, time and research constraints, the research did not examine the applicability in other organizations.
- Due to the differences in KPIs between departments at AASTMT and Banque Du Caire, this research applied only in the Educational Departments at AASTMT and in the Operational Department at Banque Du Caire to compare according to the same KPIs.
- This research applied partly to the performance planning not to the whole performance management process that there are other contextual factors that were not part of the research (data collection) process.

7.6 Further Work

As the study progressed, the researcher identified several areas for further investigation. These are as follows:

- Other qualitative methodologies can be used such as explanatory research studies to test the model over time and see if the results will change over time or not.
- The model can be used considering the other external factors, for example at other countries to see if it will give different results rather than found at Egypt.
- Extending the application of the model to a wide spectrum such as manufacturing sector to see if it would give different results if it applied at different sectors.
- This research can be used to the whole performance management process rather than performance planning process to find out if the results will differ.

7.7 Personal Reflection

It seems that the *objective and target setting aspects* have a greater positive impact on performance in comparison to the *monitoring and control aspects* suggesting that the performance is not dependent only on performance planning; in fact it is more affected by other internal and external factors. Such as workforce skills/knowledge profile, highly skilled and motivated staff seems to less process monitoring rather than be informed about the objectives, emphasise these and motivate accordingly.

And looking to the centralized management style in Egyptian environment where decisions are centralized by Top Management which appeared in declining the monitoring and control steps, it seems that it emphasize on *monitoring and control aspects.*

In addition, the misalignment between various stakeholders' requirements and the associated KPIs can significantly affect the ability of the performance planning process to plan effectively and indeed affect the perceived performance of the organisation.

Also, this research extends that externally imposed irremovable constraints (such as government policy, parent company directives) can themselves significantly constrain the capability of the performance planning process to function effectively.

Accordingly, organizations may achieve the desired performance by applying performance planning process by eliminating the constraints (the external factors) that affect the maximum performance of a system can achieve; through setting system goals, identifying performance gap, and identifying performance constraints.

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Appendixes

Page

Appendix (1)

Measuring Level of Performance for AASTMT

College:
Job Title/Position:

Level of performance	**3**	**2**	**1**
Students Students' questionnaire [Students' complaints, Students' appeals and Students' satisfaction]			
Students' numbers			
Student credit hours per faculty			
Lecturers Training of staff			
Staff discipline			
Staff promotion			
Credit hour loading			
Evaluation of staff			
Education process *Teaching* Credit hour loading			
Review of course			
Review of program			
Research performance Research volume			
Faculty awards			
National academy membership			
PhD graduations			
Publications and citations per faculty			
Resources Numbers of books in the library			
Distribution of computers in the faculty			
Occupation room			
Use of technology at the college			

Level of performance

3 is Good- 2 is Satisfactory-1is Bad

Appendix (2)

Measuring Level of Performance at "Banque Du Caire"

Job Title/Position:			
Level of performance	**3**	**2**	**1**
Profitability- measures the overall performance			
Capital risk- reflects the ability of a bank to extend loans while meeting the regulated capital standards			
Asset quality- indicates the bank's loan quality and risk			
Operating efficiency- measures the bank's ability to generate revenue and pay expenses			
Liquidity risk- indicates the cash position of the bank			
Growth- reflects the bank's change in assets			

Level of performance

3 is Good- 2 is Satisfactory-1is Bad