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EXPLORING THE USE OF THE BALANCED SCORECARD (BSC) IN
THE HEALTHCARE SECTOR OF THE KINGDOM OF SAUDI ARABIA:
RHETORIC AND REALITY

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2013

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(BSC) IN THE HEALTHCARE SECTOR OF
THE KINGDOM OF SAUDI ARABIA:
RHETORIC AND REALITY

Evaluate understanding the five perspectives of the BSC. Evaluating
the understanding of linkage between the BSC and
strategy of the hospital. The reality of the
implementation of BSC in KFSH

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Abstract

This thesis aims to evaluate the implementation of the Balanced Scorecard (BSC) based on a case organization; the King Faisal Specialist Hospital and Research Centre (KFSH-RC). The study is an exploratory investigation. Understanding BSC perspectives is important for academic comprehension and is crucial for successful implementation. BSC at KFSH-RC includes five main perspectives: Quality of Care; Medical Care; Employees; Financial; and Education and Research (learning and growth). The thesis tackles two main anecdotal, practice-based arguments: BSC helps achieve business strategy, and the implementation of BSC has often fallen short of the assertions made about its potential for impact.

A case study with a triangulation approach is justified and pursued. This study contributes to the literature in different ways. The application of the BSC has received limited attention in healthcare organisations in general, and in the Middle East and North Africa (MENA) in particular, and may be one of the first to explore such issues, across management and professional groups, to research BSC in the healthcare organisation in the KSA. It distinguishes between the understanding of financial and non-financial perspectives; and the researcher has developed a conceptual framework, which reflects the main elements of BSC implementation.

Quantitative data analysis from the case study indicates that staff members at the KFSH possess only a shallow understanding of various BSC perspectives. The study revealed a consistent lack of understanding of BSC by the department employees, due to their lack of interest. The results show that performance measures following the implementation of BSC created no significant improvement. It also confirms that even some senior managers face difficulties understanding BSC perspectives. The qualitative-based findings indicate that the level of understanding of BSC for clinical services is not significantly different from that for non-clinical services; staff members of the KFSH resist the implementation of BSC in the early stages; and there is 'autocratic' leadership style at the KFSH inhibited the flow of information. The power distance and autocratic leadership style, in combination with an inadequate launch of BSC, fail to follow the implementation steps recommended by both Kaplan and Norton (2001a) and Kotter (1996). These organisational dynamics, it will be argued, are understated in the original BSC methodology, a view consistent with the findings of Woodley (2006) and may be especially so in environments with strong professional norms such as hospitals. The implications for the study and practice of non-profit organisations wishing to adopt methodology developed initially in a commercial context, is considered.

Keywords: Balanced scorecard, business strategy, health services, performance measurement, bench-marking, knowledge management, Saudi Arabia, case study

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Dedication

This thesis is dedicated to my parents for their endless love, support, and encouragement; and to my wife Aysha, whose loving support and boundless patience made all of this possible. I also express my deep and heartfelt thanks to one and all that were involved in my research work and helped me complete it successfully, especially Dr. Wael Aldaya and Dr. Salah Alawadhi.

أهدي هذه الأطروحة إلى أمي وأبي "لحبهم وتشجيعهم ودعمهم الذي لا نهاية له"

إلى زوجتي عائشة "لحبها وصبرها الذي لا حدود له والذي جعل ذلك ممكناً"

أقدم من أعماق قلبي شكري لكل من الدكتور : وائل الداية و الدكتور : صلاح العوضي

على مساعدتهم لي في هذه المرحلة الأكاديمية من البحث .

List of Abbreviations

BSC	Balanced Scorecard
CASRO	Council of American Survey Research Organisations
HR	Human Resource
IPA	Institute of Public Administration
KFSH	King Faisal Specialist Hospital
KFSH-RC	King Faisal Specialist Hospital and Research Centre
KM	Knowledge Management
KMO	Kaiser-Myer-Oklin
KPI	Key Performance Indicators
KSA	Kingdom of Saudi Arabia
MCA	Medical Clinical Affairs
MENA	Middle East and North Africa
MIS	Management Information System
NPO'S	Non-profit Organisations
PSO'S	Public Sector Organisations
QUAL	Qualitative Data
QUAN	Quantitative Data
SBU	Strategic Business Unit
UAE	United Arab Emirates

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Chapter 1: Introduction

1.1 Background of the study

Since the development of the Balanced Scorecard (BSC) of Kaplan and Norton (1996), a substantial volume of literature has considered the importance of such tools on company strategy. According to Kaplan and Norton (1992), the BSC includes four main perspectives: financial, customer, learning and growth, and internal process perspectives. Kaplan and Norton (2001b) define the financial perspective as the strategy for growth, profitability, and risk, viewed from the perspective of the shareholder. They consider the customer perspective as the leading indicator and an important vehicle for companies wishing to engage more proactively with their customer's needs. The third BSC perspective is the internal business process. According to Kaplan and Norton (2001b), the internal business process perspective enables managers to identify the processes that are critical for achieving customer and shareholder objectives. Learning and growth (or innovation) is the fourth BSC perspective, which enables a company to create long-term growth and improvement. The learning and growth perspective is a framework for quantitatively assessing employees' satisfaction, productivity, and retention. Each of the previous perspectives consists of relevant strategic goals, indicators, and measures linked to the business strategy.

The central importance of BSC is the balance between different perspectives. Olve and Sjostrand (2006) suggest that the idea of balance is particularly important in three areas: the balance between financial and non-financial perspectives, the balance between internal and external stakeholders, and the balance between short-term and long-term perspectives.

BSC is considered as a multi-dimensional management tool, since it serves as a strategic management tool, a communication management tool, a performance management tool, and a KM tool. In addition, Kaplan and Norton (1997) suggest that BSC can create a new business culture that helps to incorporate all management levels in the decision making process.

One of the key contributions of BSC is that employees are motivated by a clear organizational strategy. Employees want to understand the interaction between their activities and the organization's mission, vision, values, and strategy (Kaplan and Norton, 1994). BSC allows internal and external communication to spread the KM within the human relations. Kaplan and Norton (2001b) suggest that employees must learn and understand the strategy before they contribute to the implementation of the process.

Kaplan and Norton (1996) believe that BSC provides clear, understandable, and achievable measures. They suggest that for each of the four BSC perspectives, (four as a minimum in each and seven as the maximum) 22 independent measures on average are needed. Kaplan and Norton (1996) claim that the number of measures does not matter, if they are not absorbed by the company.

The extant literature suggests that the main objective of the implementation of BSC is to improve organisational performance. To do this, companies have to facilitate the flow of information through top-down and bottom-up channels. Information on what are perceived to be the key success factors for the strategy needs to be communicated effectively to staff members at all management levels. Furthermore, the process of learning may enhance the understanding of the main drivers of business success. Woodley (2006) suggests that one should highlight the importance of culture to the

application of BSC. Ignoring the impact of culture on BSC may inhibit the understanding of BSC drivers, which in turn deteriorates performance measures.

Kaplan and Norton (2001a) suggest that BSC looks like a knowledge management (KM) system in that employees must be aligned to the strategy in order to create value. Thus, KM is a dynamic mixture of human, intellectual, social, and structural capital, which provides the fuel for creating and using knowledge. Many companies use the BSC tool as a KM process within the organizational structure of the firm.

Kaplan and Norton (1996) assume that BSC is a useful tool for non-profit organisations (NPOs) as well as for-profit organisations. Though developed in the context of commercial organisations, Kaplan (2001) asserts that BSC may also be applied to public sector organisations (PSOs) and NPOs, albeit with some amendments. These amendments are a fundamental issue, because the nature of the strategy and drivers in the PSOs and NPOs are often substantially different to the private sector with its profit motive.

Studies on the implementation of BSC on company performance show mixed results. One strand of literature shows that the implementation of BSC is useful (see for example, Kaplan and Norton (1994), Martinsons (1999), Hoque and James (2000), and Chi and Hung (2011)). This literature shows how companies successfully translate their strategies into actions. Furthermore, this literature presents some evidence on how companies balance financial and non-financial perspectives, internal and external needs, and short-term and long-term objectives these researchers show empirically that organisations can successfully communicate BSC principles to junior management levels. They also claim that BSC has a great impact when deployed to drive organisational change (Kaplan and Norton, 1996).

However, in another strand of literature, for example Pforsich (2005), Olve et al. (2004), and Dent (2005), a considerable number of 'failure' stories are presented. In this literature, BSC failure is attributed to many factors. Olve et al. (2004) suggest that the failure of BSC implementation is due to poor knowledge sharing, which neglects to facilitate learning from other units' goals and targets. They also attribute the failure to the fact that BSC is not linked with the incentive system. Other factors as suggested by Pforsich (2005), Olve et al. (2004), and Dent (2005) include the following: incorrect selection of appropriate measures; inefficient implementation by the management, or delayed feedback or over-emphasis on financial measures. Similarly, Ho and Mckay (2002) attribute failure to delayed feedback and an uncontrollable number of measures. They also found that the top management level did not deploy BSC to their business units.

Despite the controversy and contradictions within this practice paradigm, the Saudi government made a strategic decision, encouraging for-profit and public firms to strengthen tactical systems and improve management performance indicators through the implementation of BSC. Thus, in the last ten years, BSC has been adopted by several large companies in Saudi Arabia. A considerable number of private sector institutions have applied BSC including the Saudi Arabian Oil Company, Al-Zamel Company, Saudi Telecom, Saudi Basic Industrial Corp, and the National Commercial Bank. In addition, non-public organisations show interest in applying BSC. Specifically, the research organisation of the KFSH RC is among the first hospitals in KSA to implement BSC. However, there is a dearth of literature on BSC in the KSA.

1.2 Research problem

The existing literature on BSC highlights a paradoxical argument on the importance of BSC. The proponents of BSC, headed by Kaplan and Norton (1996, 1992, and 2004) claim that BSC enhances an organisation's main activities and helps in achieving business strategy. However, there is a counter view amongst scholars such as those of Lingle and Schiemann (1996), Malina and Selto (2001), Venkatraman and Gering (2000), and Norreklit (2000), who believe that BSC fails to achieve either of these goals. Thus, the main purpose of this research was to investigate the extent to which employees, both clinical and non-clinical, at KFSH are aware of BSC, its consequences for organisational operations, and its implications for implementing business strategy.

BSC has been implemented extensively in industry and to a lesser extent, in public firms around the world. A considerable amount of literature has been issued studying the implementation of BSC. However, in the context of BSC associated with the KSA, a very limited number of studies have been undertaken. For example, Alhamoudi (2010) examines the impact of KM on the implementation of BSC in Institute of Public Administration (IPA) in Saudi Arabia. This study focuses on factors that may be critical and may influence the development of a strategic KM in the public sector in Saudi Arabia. The study of Alhamoudi (2010) found that information communication technology and the methods of internal exchange of knowledge enhanced how the departments and individuals communicated formally with each other. While the process of KM transfer was a strong success factor for the adoption of the strategic KM approach, the lack of a structured mechanism for knowledge creation, sharing, and leveraging made it very difficult for many employees to access specific knowledge. In addition, the study confirmed that top management support is a strong

success factor for adopting the strategic KM approach. However, the study found that employees were not encouraged to engage in a regular dialogue with the aim of exchanging information or giving feedback. It was observed that the IPA in Saudi Arabian structures did not reflect a need to learn or to encourage flexibility and speedy transfer of knowledge for adaptation to change. However, previous studies including the study of Alhamoudi (2010) have not extensively investigated the implications of the employees' understanding of BSC perspectives. In particular, no single study is applied in the context of BSC in the health sector organization at the KSA. Since BSA has been applied at the KFSH & RC since 2006, this provides an ideal place to investigate the role of employee understanding of BSC in the health sector.

1.3 The methodology of the study

Since this thesis is the first in KSA that examines the implementation of BSC, exploratory research is applied. Exploratory research is a valuable means of finding out 'what is happening; to seek new insights; to ask questions and to assess phenomena in a new light' (Robson, 2002). In addition, the conceptual frame work is designed to examine the presence of the relationship between understanding the BSC and performance measures. The framework also examines the link between the BSC and business strategy. Since the presence of these relationships is uncertain, the exploratory research method is utilised. Furthermore, there is a lack of knowledge to the researcher regarding the determinants that influence BSC implementation the most, and the way in which each determinant influences the business strategy. Thus, the purpose is to use exploratory research to provide insight and in-depth understanding of this social phenomenon.

This study employs a triangulation approach to explore and guide the evaluation of the implementation of BSC in KFSH. The use of both the quantitative and qualitative

methodologies is essential to encompass the different aspects of BSC implementation. To address the complexity and diversity of examining BSC emerging from the tribal nature of the Saudi society and the organisational culture, a mixed methodology is also necessary.

This research employs deductive approach as it is useful to examine the suggested theoretical framework of the BSC. It also helps to test and examine the research hypotheses and propositions leading to confirm the theory and indicate the need for its modification. In addition, the conceptual framework and the concepts need to be operationalised in a way that enables facts to be measured quantitatively. Furthermore, the outcomes can be generalised since the data is collected from relatively large sample size.

A case study strategy is also applied in this research to uncover the reality of BSC in public organizations. Complexity within large organisation needs to be addressed with much care, requiring a method of research with powerful capabilities that can deal with administrative problems such as the chain of commands and unclear hierarchy system. The case study approach is the best tool for this research, offering an in-depth analysis of the BSC system. This depth is based on the high degree of the detail, richness, completeness, wholeness, or degree of variance that is accounted for any explanation (Gerring, 2004). In addition, the case study approach is helpful to examine the existing theories rather than creating new ones. This fits with the deductive approach (Gerring, 2004).

In this thesis, qualitative (QUAL) data are used to explain, in more detail, quantitative (QUAN) results. The researcher therefore uses a mixed methods (QUAN/QUAL¹) design, since the research questions and data analysis are treated

¹ In triangulation literature (QUAN/QUAL) means that the two methodologies have equal weight.

equally. In addition, both QUAN and QUAL data are independently analysed and their results are equally important, thus QUAN/QUAL meets the forthcoming research objectives. In the current study, the researcher also transforms QUAN factors into QUAL themes. For comparison, the researcher consolidated the themes and factors that emerged through both analyses and used QUAL data to provide nuance to the consolidated themes/factors. This approach is explained in more detail by Johannes and Mauri (2012).

Quantitative methodology shares its philosophical foundation with the positivist paradigm. This philosophical position claims that there is one objective reality (Bryman, 2008). This philosophy includes rigid principles that make BSC investigation inflexible to explain the reality of such phenomena. As a result, qualitative methodologies are also incorporated into the research design. The qualitative part aims to examine the experience of KFSH's staff to the determinants of the successes and failures of BSC. This type of philosophy focuses on the holistic perspective of the person and environment, which is more congruent with social research (Weaver and Olson, 2006).

The qualitative phase applies two different instruments: 'Semi-Structured' interviews and 'Observation' by the investigator, who was an employee at KFSH from 2001 to 2008. There is a precise procedure for interviewing human subjects, as outlined by Kvale and Brinkmann (2008) and Creswell (2009). However, the data obtained by observation—most importantly the analysis of such data—is more problematic, in that it may be considered as too partial. This is because the observer, based on his/ her past experiences, may choose to *see* particular phenomena and leave others out. One way to address this potential bias is to exercise historical observation, as suggested by Johnson and Duberley (2003) and (Hughes, 2006).

The semi-structured interviews were conducted over a period of 45 days. The participants were selected from five different categories: senior executives; directors; doctors; nurses; and support staff. The rationale behind the selection of participants is based on the literature and the principles regarding what makes BSC successful, as highlighted by Kaplan and Norton (1996b). They argue that the communication between the hierarchical levels enhances the level of understanding, which is a prerequisite for a successful launch and use of BSC in organisations. The previous qualitative based studies focussed only on the top management levels and therefore lack detail and are subject to bias. To rectify this problem, this thesis acquires data from different management levels.

Observation is yet another method for collecting qualitative data, which is mostly used in ethnography studies popular amongst anthropologists (Bryman, 2008). The rationale behind the use of the researcher's own observation is to find out whether there is any discrepancy between what people say and what the real situation is at KFSH. Participative observation aims to understand the situation from the subject's point of view. Hence, interaction is an important part of participant observation. It further facilitates the researcher's mission through personal experiences in order to understand more informal data (and its interaction with the formal) in a social setting; the motives and meanings of people's behaviour through the lens of the subjects being studied. As a result, the researcher used 'retrospective participative observation', as well as observation in 'real time' (during 2010 to 2011) when the research conducted.

1.4 Research objectives

This thesis aims to achieve three main research objectives, which are explained below. First, this thesis seeks to evaluate the understanding of the main perspectives of BSC at KFSH-RC, by different groups. The researcher considers that the understanding of BSC perspectives is crucial for its successful implementation as suggested by the literature. BSC at KFSH-RC has been amended to include five main perspectives: quality of care; medical care; employee; financial; and the education and research perspective (learning and growth). The medical care perspective is covered by Medical Clinical Affairs (MCA) and focuses on medical and clinical services. The quality care perspective concentrates on increasing service capacity, through effective facility planning, and expansion of projects. The employees' perspectives include strengthening staff selection, recruitment and retention strategies, incorporating human resources (HR) and recruitment programs, and the provision of an employee friendly environment and education programs. These are achievable through the approach of change management, skill projection and effective organizational roles. The financial perspective focuses on improving the efficiency and effectiveness of financial decision making processes. In addition, it focuses on cost and billing actions with operational linkages. The educational and research perspective provides improvement in systems, advanced IT training, data reporting skills, employee educational programs, skill development programs, role playing programs and research integration initiatives.

Second, this thesis aims to evaluate employees' understanding of the linkage between BSC and strategy of KFSH-RC. The seminal work of Kaplan and Norton (1996) suggests that the process of BSC helps employees to understand the main perspective of BSC. The employees should know how to link what they do with the organization's mission, vision, values, and strategy. Kaplan (2001) explain that for

organisations to achieve their objectives—whether they are manufacturing or service, private or public, for profit or not-for-profit—all organisational participants need to be aligned to the strategy.

Third, the researcher aims to evaluate the determinants of successes and failures of BSC in KFSH-RC, from an organisational behaviour perspective. The researcher designs a conceptual framework that explains these determinants in the light of business strategy from the reviewed literature. Then the presence of these determinants and how KFSH handles the possible success or failure of BSC is examined. Kaplan and Norton (1996, 1992, and 2004a) attribute the success of BSC to a variety of factors.

1.5 Research questions

The main purpose of this research is to answer research questions, each of which has been posed to satisfy the research objectives. Thus, the researcher uses propositions and hypotheses derived from the literature review (see below) to state the expected research results. Propositions are inferred qualitatively whereas hypotheses require data and measurement to enable researcher to examine them statistically. Johannes and Mauri (2012) claim that by focusing mainly on numeric information as in quantitative approaches, some approaches miss the depth and detail that are assigned to phenomena by participants themselves. Thus, propositions are considered as a guidance of testable hypotheses. These hypotheses may in turn be used to support or refute the researcher's propositions. Propositions and hypotheses emerge through the research process are developed and tested using triangulation methods.

To achieve the objectives set out above the study's main questions are as follows:

- 1) What is the level of employees' and managers' understanding of the BSC perspectives?

- 2) What is the level of employees' and managers' understanding of the Business Strategy?
- 3) To what extent does implementation of BSC improve business performance and strategy?
- 4) Do clinical, non-clinical, top, middle, and lower management levels of the KFSH have different opinions of the BSC perspectives.
- 5) What is the employee's perception of the success (or failure) factors of the BSC perspectives at the KFSH?

Motivated by the literature review and the theory of the BSC, the researcher drives **four propositions**:

- The **first proposition** suggests that the BSC as a strategic management tool produces a continuous learning environment that enables managers and employees to adequately understand the BSC perspectives and link them with the business strategy.
- The **second proposition** predicts that implementation of the BSC may improve the business performance.
- In the light of the **previous proposition**, the third proposition concludes that improvement in business performance will help to achieve the business strategy, including its objectives, vision and mission.
- The **fourth proposition** suggests that successful implementation of the BSC is determined by the following factors:
 - A- The internal and external communications
 - B- The weighting between financial and non-financial perspectives
 - C- The level of management information systems
 - D- The organisational culture

E- Understanding the linkage between BSC perspectives and the Business strategy

Motivated by the literature review, the researcher suggests the following testable hypotheses, as shown in **Table 1.1**

Table 1. 1 The emergent, research hypotheses:

No.	Hypothesis
<i>H₁</i>	<i>Employees at the KFSH show significant understanding of BSC perspectives.</i>
<i>H_{1a}</i>	<i>Employees at the KFSH show significant understanding of the medical care perspective.</i>
<i>H_{1b}</i>	<i>Employees at the KFSH show significant understanding of the quality of care perspective.</i>
<i>H_{1c}</i>	<i>Employees at the KFSH show significant understanding of the internal process perspective.</i>
<i>H_{1d}</i>	<i>Employees at the KFSH show significant understanding of the learning and growth perspective.</i>
<i>H_{1e}</i>	<i>Employees at the KFSH show significant understanding of the financial perspective.</i>
<i>H₂</i>	<i>Employees at the KFSH show significant understanding of the cause and effect (the linkage) of the BSC.</i>
<i>H₃</i>	<i>The KFSH shows significant understanding of the 1st and 2nd generations of the BSC.</i>
<i>H₄</i>	<i>KFSH weights the non-financial perspectives greater than the financial perspectives and thus the understanding of non-financial is greater.</i>
<i>H₅</i>	<i>Clinical staff have a greater understanding of the BSC perspectives than non-clinical staff.</i>
<i>H_{5a}</i>	<i>Clinical staff have a greater higher understanding of the medical care perspective than non-clinical staff.</i>
<i>H_{5b}</i>	<i>Clinical staff have a greater understanding of the quality of care perspective than non-clinical staff.</i>
<i>H_{5c}</i>	<i>Clinical staff have a greater understanding of the internal process perspective than non-clinical staff.</i>
<i>H_{5d}</i>	<i>Clinical staff have a greater understanding of the learning and growth perspective than non-clinical staff.</i>
<i>H_{5e}</i>	<i>Non-Clinical staff have a greater understanding of the financial perspective than clinical staff.</i>
<i>H₆</i>	<i>The common measures within the BSC are more understood by staff than the unique measures.</i>
<i>H₇</i>	<i>Following the implementation of the BSC, the BSC perspectives are improved.</i>
<i>H_{7a}</i>	<i>Following the implementation of the BSC, the quality of care perspective is improved.</i>
<i>H_{7b}</i>	<i>Following the implementation of the BSC, the medical care perspective is improved.</i>
<i>H_{7c}</i>	<i>Following the implementation of the BSC, the learning and growth perspective is improved.</i>
<i>H_{7d}</i>	<i>Following the implementation of the BSC, the learning and growth perspective is improved.</i>
<i>H_{7e}</i>	<i>Following the implementation of the BSC, the financial perspective is improved.</i>

1.6 The scope and duration of the study

The scope of the study covers clinical, nursing, paramedical and administrative staff and departments, including senior staff who are involved in the decision-making process of KFSH-RC. This hospital has around 8000 employees and is considered one of the largest public hospitals in the KSA. This hospital is also considered one of the leading hospitals in the health care services in the KSA.

The qualitative and quantitative data and five years of retrospective data were collected during the calendar year 2010-2011. Since the study is concerned with investigating the employee understanding of BSC in KFSH, the researcher designed the study sample to reflect the contribution for each business level. In addition, the researcher investigated the level of understanding of clinical and non-clinical employees.

The researcher also investigated the impact of BSC on KFSH performance. To do this, the researcher collected data from the annual reports and some published papers from 2002 to 2010. This data covers the main indicators that were applied in KFSH pre- and post- BSC implementation.

1.7 The structure of the thesis

The rest of this thesis is organised as follows:

Chapter Two (The Literature Review) reviews the literature related to BSC. In particular, the main concepts and generations of BSC are defined. The importance of BSC to the private and public companies is also highlighted. In this chapter, the researcher evaluates the results of implementation. More specifically, the implementation of BSC in healthcare organisations is explored.

Chapter Three (The Conceptual Framework) develops the conceptual framework based on the extant literature. In this chapter the researcher presents the main research questions that address important gaps in the extant literature. The researcher also develops the main hypotheses and propositions. **Chapter Four (KFSH in Context)** outlines the context of the KFSH by presenting a brief history. It also describes the main management functions and principles at the hospital. This chapter also discusses the competitive environment as well as the main strategy of KFSH. Finally, the development of BSC perspectives in the KFSH is presented.

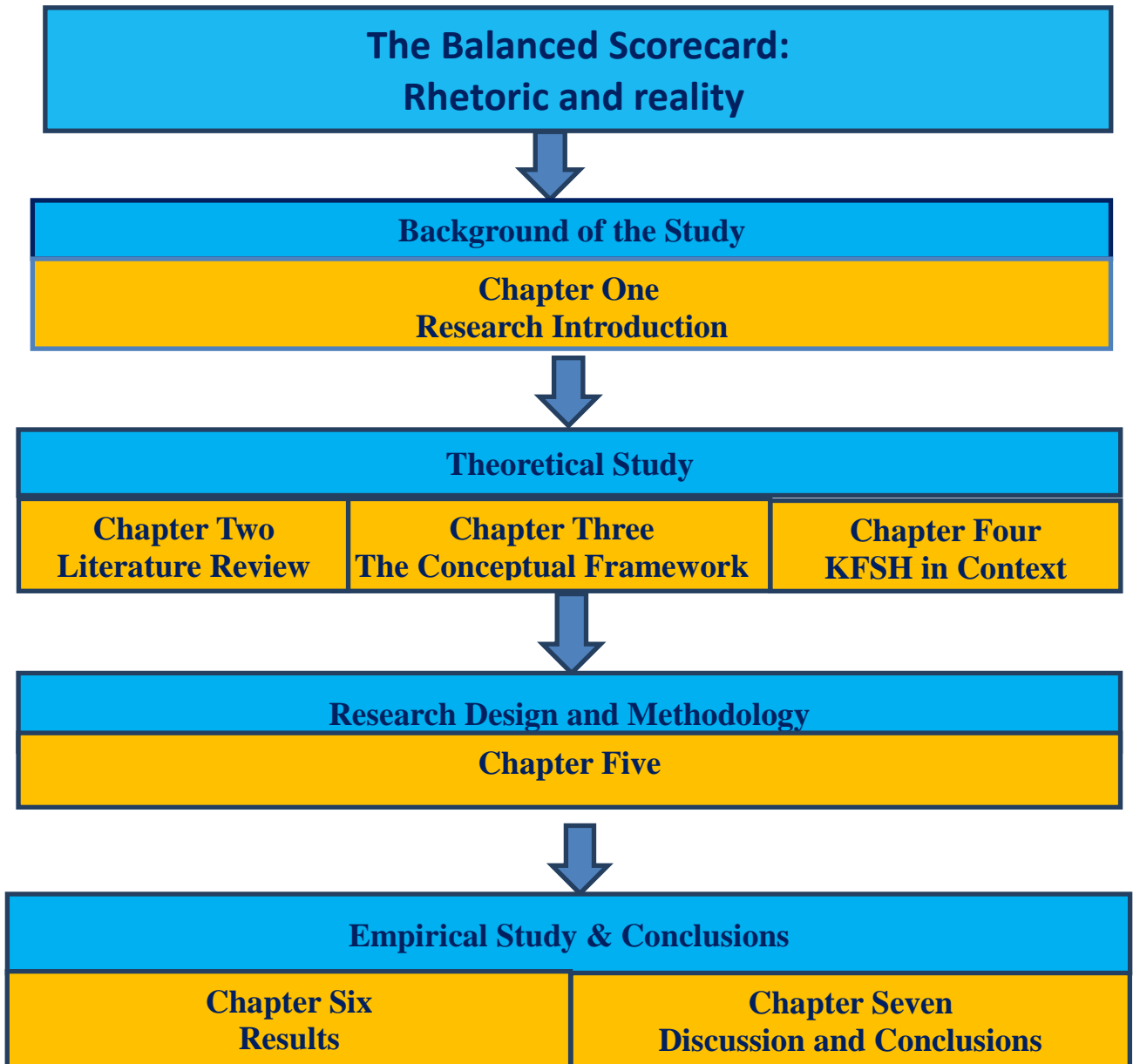
Chapter Five (Research Design and Methodology) presents and develops the research methodology. The researcher describes the triangulation approach and its advantages and disadvantages. Herein, the philosophical position of this thesis is discussed. The researcher focuses attention on the importance of the quantitative and qualitative aspects within a single design. The research design is then outlined, with consideration of the primary and secondary data and the sample size required. This chapter also discusses the main ethical considerations.

Chapter Six (Analysis of the KFSH Case Study) presents the data collected from the empirical study in two sections. This chapter presents the quantitative results in the first section, which includes the survey and secondary data analysis. In the second section, the qualitative results are presented, which includes the semi-structured interviews and the researcher's observations.

Chapter Seven (Discussion and Conclusions) provides a comprehensive discussion on the analysis of the results and findings of the quantitative and qualitative data. The conceptual framework is discussed and the hypotheses along with propositions are examined. This chapter approaches the analysed data in triangulation,

meaning data from all three data collection methods in relation to each hypothesis and proposition. This chapter concludes with the main findings of each method and presents the limitations of the study. Finally, the research suggests some areas for the future research. The following figure represents the thesis structure.

Figure 1.1: The structure of the thesis



Chapter: 2 The literature review

2.1 Introduction

Kaplan and Norton (1992) introduced the BSC as a multi-faceted management tool. They aimed to provide a strategic tool to overcome the shortages of previous methods for performance management.² Kaplan and Norton (2001a) consider that BSC is not only a performance measurement system, but also a step towards a strategic performance measurement and management system.

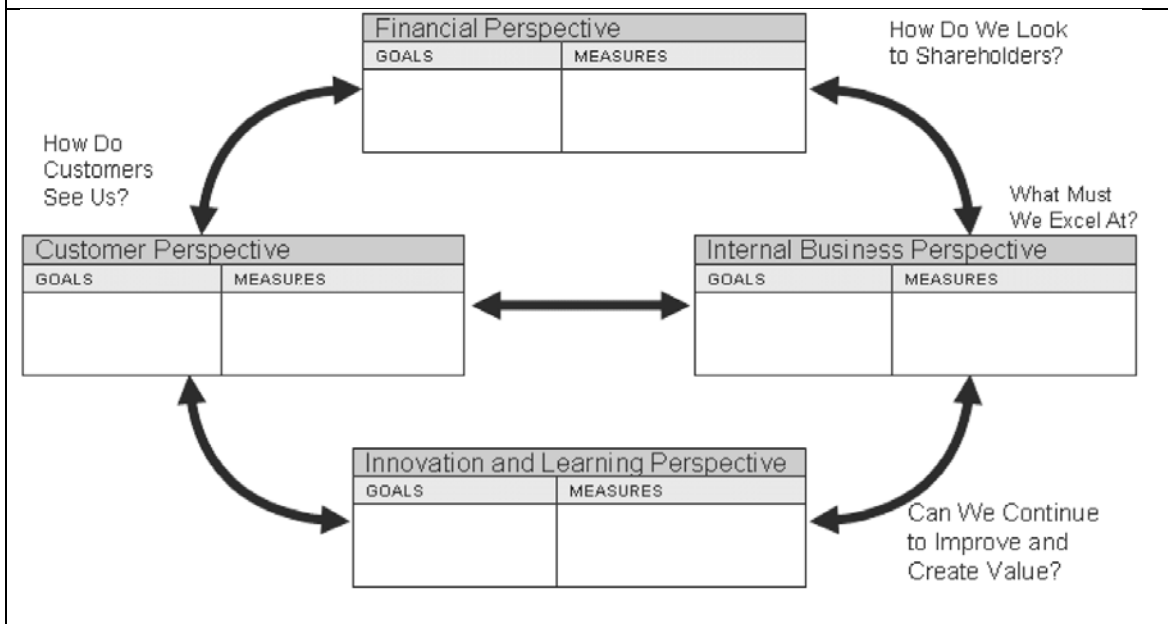
According to Lawrie and Cobbold (2004), BSC has been developed through three generations (versions). The first generation of BSC introduces four perspectives: financial, learning and growth, internal process, and customer perspectives. In this version, companies use specific multi-dimensional perspectives for strategic performance measurement that combines financial and non-financial strategic measures. As such, companies should assign goals and measures for each perspective.

In the second generation, companies should be able to link the multi-dimensional perspectives of the first generation with the strategy of the business. In other words, the relationship between BSC perspectives should take a cause and effect shape. In this generation, firms should show how perspectives influence each other.

Figure 2.1 summarises the first and the second generation of BSC as presented by Lawrie and Cobbold (2004).

² The previous systems only consider the financial measures and ignore the importance of non-financial ones.

Figure 2.1 First and second generations of BSC, according to Lawrie and Cobbold (2004)



In the third generation, BSC considers the importance of incentives. Thus, this generation implements a strategy by defining objectives, outcomes of action plans, and also links BSC with incentives. In other words, the strategic map of a particular firm should include the incentive system that links the performance of the business strategy with the employees' incentives.

BSC as a strategic management tool includes many management principles, as explained by Kaplan and Norton (1996, 2001, and 2004a). First, BSC enables companies to link their activities with their business strategy. Second, companies align BSC to their strategy, since all business units and different management levels contribute in aligning the strategy. The third principle of the strategy concurs that once employees understand and are motivated, the strategy becomes everyone's daily responsibility. Fourth, Kaplan and Norton (1996) consider that BSC is a continual strategic learning process making everyone on board and help in achieving the strategy.

Kaplan and Norton (2001a) assert that BSC is also a management tool for change and improving the competitive environment. BSC identifies areas where the firm's strategy is successful and where it needs improvement. Thus, companies should change their policies and procedures to address the areas of improvement.

BSC according to the literature of Kaplan and Norton (1993) is a communication management tool. One of the key contributions of BSC is that employees are motivated by a clear strategy, presented by the organization. Employees want to understand the link between their activities and the organization's mission, vision, values and strategy. These ideas are based mainly on the effectiveness of the communication tool in spreading the knowledge.

The literature also suggests that applying internal and external communication can secure full benefits of BSC. The internal communication is applied to direct action and communicates it with employees. The strategy and performance must provide clarity of objectives for all levels within an organisation. Therefore, it helps to synchronise the activities of all employees towards commonly stated objectives. External communication enables companies to learn and to understand the needs of the external stakeholders. Companies can do this by using comparability, visibility, controlled release, and open access methods. For instance, comparability means that performance indicators (PIs) of BSC provide a standard means of comparing one organisation with another.

Kaplan and Norton (1996) recognise BSC as a performance management tool as it provides clear, understandable, and achievable measures. BSC is also known as a KM tool that secures a smooth flow of information as well as the knowledge within the business levels and departments. Furthermore, KM enables firms to exchange

knowledge with the stakeholders (See among others, Kaplan and Norton, 2004a, 2004b, Andersson et al. (2003) Bourne, 2000, Irala (2007), Bourne et al. (2002).

Since 1992, a considerable volume of studies have been produced that either complement or criticise the implementation of BSC in general. These studies all produce success and non-success stories as exemplars. The reviewed literature on BSC suggests two conflicting stories regarding the influence of BSC on the organisations. It also shows that organisations successfully communicate BSC with the lower management levels and they claim that BSC has a great impact when deployed to drive organisational change (Kaplan and Norton, 1996). The cause and effect relationship is confirmed as a crucial dynamic system in applying BSC. Companies that correctly apply the cause and effect relationship show good improvement in achieving the strategy.

2.2 The Balanced Scorecard definition

The BSC was first developed by Robert Kaplan, and Professor David Norton in 1992. BSC was first mentioned by Johnson and Kaplan (1987) in their book “Relevance Loss”. The roots of BSC were further documented in 1990, when the Nolan Norton Institute, the research arm of KPMG auditing company, sponsored a one-year, multi-company study, called “Measuring Performance in the Organisations of the Future” (Kaplan and Norton, 1996). The study, according to Kaplan and Norton (1996), was motivated by a belief that existing performance measurement tools, mainly focusing on financial accounting measures, were becoming out-dated.

The term "balanced" means that each indicator or measure has its own weight that shows its relative importance. These weights help companies know which goals, indicators, and tasks are most important to their strategy. In addition, the term also leads firms to have a balanced view of business activities as whole. This includes internal

processes, customer relationships, learning and growth, as well as finance. In this view and according to Kaplan and Norton (1996), companies should balance financial and non-financial perspectives. Consequently, this balanced view provides an objective benchmarking indicator for evaluating the progress in achieving an organisation's strategic objectives. The balanced also means that companies should balance their objectives. Furthermore, BSC enables companies to develop a more comprehensive view of their strategic and operations management.

BSC considers objective and subjective indicators since it balances lag (past) and lead (future) perspectives. The lag perspectives generally recognise the importance of the past performance (i.e., customer satisfaction and profit). These indicators are objective and firms can easily access them, but they are inadequate for predicting the future. On the contrary, the leading indicators are subjective indicators. Thus, BSC includes a mix of lead and lag indicators to complement and benefit the shortcomings of one another. On one hand, lag indicators without leading measures do not communicate how objectives are going to be achieved. On the other hand, leading indicators without lag measures may demonstrate short-term improvements but do not identify whether these improvements, translated into results for customers, ultimately allowing firms to achieve their mission.

Empirical studies (Banker et al. (2004); Libby et al. (2002); Lipe and Salterio (2000)) examine the differences in balancing³ and "weighting" in the organisation's common and unique performance measures. These studies claim that the spread of awareness is unequally distributed between financial and non-financial perspectives and between common and unique measures. Cardinaels (2010) reports evidence that managers tend to weight financial measures more heavily than non-financial measures

³ In this thesis, the concept of "balance" and the concept of "weighting" are used.

for reasons including outcome effects, outside pressure, and familiarity. According to the Hackett Group's survey (Hackett, 2004), less than 20% of companies that invested in BSC have achieved mature BSC implementations that generate value. Too many metrics and heavily weighted finance data, makes the scorecards unbalanced. The psychology literature (Hawkins and Hastie (1990); Ghosh and Lusch (2000)) argues that auditors and evaluators are more likely to use financial indicators than non-financial ones, when assessing a manager's performance. Thus, they give more weight to financial outcomes, regardless of whether the actions to achieve the results were appropriate (Ittner et al., 2003).

Cardinaels and van Veen-Dirks (2010) claim that financial measures share a common orientation toward financial outcomes. Whereas, non-financial measures contain a mixture of outcome-oriented measures and measures seen as drivers of such outcomes. Empirical research shows that people are familiar with the companies' financial measures, because shareholders are vocal and boards frequently apply pressure on behalf of shareholders (Anthony and Govindarajan, 2001). DeBusk et al. (2003) provided evidence suggesting that measurement composition depends heavily on strategies belonging to the organization. Bottom-line financial measures such as return on invested capital and net profit, received more attention than their non-financial counterparts. Schiff and Hoffman (1996) found that operational managers placed greater weight on financial information when evaluating the performance of a business unit. However, they also found that participants placed greater weight on non-financial information when evaluating a manager's performance. Luft (2005) examines the use of financial and non-financial measures in a decision-making context. This shows that participants place greater weight on current non-financial information when forecasting future financial performance than on current financial information. Luft (2005)

attributes this result to non-financial measures being more cognitively valuable (i.e. more meaningful, transparent, and understandable) than financial measures.

The conflicting results in the preceding studies make hypotheses regarding the relative weights on financial and non-financial measures in business decisions difficult to form. The literature on the health studies also displays conflicting results. Jones et al. (2002) found that at Duke University Hospital, the perspective of the customer was given the highest priority of all the four perspectives of BSC. In other cases (Voelker et al. (2001); Inamdar et al. (2000); Urrutia and Eriksen (2006); Kaplan (2001)) a community or a visionary perspective has been considered to be the ultimate purpose of the organisations. Voelker et al. (2001) suggest that in some not-for-profit organisations, the financial perspective can be excluded from BSC, since financial performance cannot demonstrate success. Heberer (1998) considers that BSC perspectives should present different weights. In other studies, the authors have noticed how the hierarchy between the perspectives should be given the same weight (Aidemark, 2001) and (Aidemark and Funck, 2009).

Some studies pay attention to the importance of common and unique measures. Lipe and Salterio (2000) argue that when BSC uses both common and unique measures, evaluators place more weight on common measures, while ignoring unique measures that may also be informative. Similarly, Lipe and Salterio (2000), Ittner et al. (2003a) provide evidence that managers give more weight to the common measures than the unique ones as they are familiar with the former measures.

In summary, failure to keep balance among the four perspectives may result in a continuous decline in business performance due to a lack of investment in process and customer perspectives. This failure may inhibit the achievement of short-term financial

returns, leading to the discouragement of employees who are unable to effectively survive the decline in the future strategic objectives. Kaplan and Norton (1996) claim that a balanced view protects companies from ultimate failure by supporting a worthy circle of investment in the future of the organisation. This leads to an improvement in a company's services and enhances the customer relations. This in turn produces better financial results. Furthermore, the balanced view helps companies understand the needs internal and external stakeholders resulting from investment in research and development, which in turn improves the competitive environment.

2.2.1 The generations of BSC

Kaplan and Norton upgrade BSC through three generations. Speckbacher et al. (2003) present these three generations in detail. In the first generation, companies use specific multi-dimensional perspectives for strategic performance measurement that combines financial and non-financial strategic measures. The second generation is similar to the first generation and additionally applies the strategy by using cause-and-effect relationships. The third generation implements a strategy by defining objectives, action plans, outcomes and linking incentives with BSC. Molleman (2006) asserts that 50%, 21%, and 29% of companies applied the first, the second and the third generation, respectively. Molleman (2006) reported that companies using the third generation benefit more from the full services of BSC.

The third generation fills the gap between theoretical strategic plans and real business activities. However, Kaplan and Norton (1996) suggest that when applying the third generation, companies should be careful to link the reward system to BSC. There is a risk in applying the reward system due to the unreliability of the selected measures, lack of knowledge in linking the four perspectives; and firms' satisfaction with their BSC compared to firms with less developed BSC. Malina and Selto (2001) suggest that

BSC can be worked if organisations reward managers on the basis of the achievements of BSC measures. Speckbacher et al. (2003) found that companies implementing higher generations, such as the third, are less subject to strategic difficulties. The study also showed that the majority of companies associated with less developed BSC suffered from difficulties in implementing BSC. In addition, half of the companies failed to obtain cause-and-effect relationships as they had only recently started the implementation process.

2.2.2 BSC perspectives: Kaplan and Norton's Rationale

The four BSC perspectives are detailed below.

2.2.2.1 Financial Perspective

Kaplan and Norton (2001b) define the financial perspective as the strategy for growth, profitability, and risk, viewed from the perspective of shareholder. They claim that for companies to succeed financially, they should satisfy their shareholders. In Kaplan and Norton literature, financial perspective is placed at the top of BSC hierarchy. In addition, this perspective is a lagging measure (what has happened in the past). Huang (2009) considers that the financial perspective evaluates the contribution of the firm strategy, implementation, and execution to bottom-line improvement. Thus, the main concern of the financial perspective is to maximise the shareholder value.

This business economic value can be increased through the basic approaches of revenue growth and productivity. A revenue growth strategy includes two components: (i) building the franchise with revenue from the new market, new products and new customers; and (ii) increasing sales to the existing market and customers by enhancing the relationship with them, and suggesting complete solutions. A productivity strategy also includes two components, which are improving the cost structure by lowering the direct and indirect costs, and utilising assets more effectively by reducing the fixed and

the working capital. Shareholders are interested in several measures evaluating the efficiency of financial perspective. Return on capital, cash flow, and operating income all reflect the short-term preference. Gearing ratios, market share and sales growth reflect the long-term outcomes and uncertainty (Kaplan and Norton, 1993).

Kaplan and Norton (2001a) claim that financial measures alone are inadequate at measuring and managing firm's performance. Malina and Selto (2001) claim that financial measures concentrate on the current impacts of decisions without a clearly linking short-term actions and long-run strategy. Another drawback is that financial information is based on past performance but communicates little about long-term value creation.

2.2.2.2 Non-financial perspectives

The innovation of BSC provides a new dimension to strategic management. Non-financial perspectives enable managers to look at the broader picture of the business. In addition, they help companies to link their internal activities with the desires of the stakeholders. Furthermore, non-financial perspectives make managers link business unit activities to long-term goals.

Customer perspective

Kaplan and Norton (1992) consider the customer perspective as the main leading indicator. The central importance of the customer perspective is how companies satisfy their customer needs. Chavan (2009) suggests that customer satisfaction can be achieved by product/service attributes, customer relationships, and image and reputation. Kaplan and Norton (1992) suggest that the customer perspective includes several measures, such as, customer satisfaction, retention, new customer acquisition, market share, customer profitability, and percentage of unprofitable customer.

Kaplan and Norton (1996) claim that by fulfilling customer satisfaction, the organisation is then headed to achieve customer retention and customer acquisition. Customer retention is a process in which companies give the customers more than what they expect, thus making them more loyal advocates to its brand/service. Customer acquisition is the rate at which companies attract or win new customers or business and it can be measured by either the number of new customers or the total sales to new customers (Kaplan and Norton, 1996).

Kaplan and Norton (1996) suggest that customer profitability can be grown by customer satisfaction and higher market share, which in turn achieve higher financial returns. Market share reveals how well a company is penetrating a desired market. Kaplan and Norton (1996) reveal that poor performance in customer perspective as a leading indicator of future decline may threaten the company's strategy even though the current financial picture may look good. These measures help managers to ensure that they meet the expectations of their customer within a reasonable cost. Irala (2007) suggests that the customer perspective helps companies to continually support their customers.

Internal Process Perspective

So far, the financial and customer perspective aim to satisfy shareholder and customer, respectively. The internal process satisfies both the internal and the external stakeholder. According to Kaplan and Norton (2001a), the internal business process perspective enables managers to identify the processes that are critical to achieving customer and stakeholders' objectives. They suggest that the internal process can help managers define a complete internal process value chain that starts from the innovation process and carries through to the post-sale service.

According to Kaplan and Norton (1996) the internal processes can be categorised as follows: (i) operations management, which can improve asset utilization and supply chain management (SCM); (ii) customer management, which checks the process of enhancing customer value and includes selection, acquisition, retention, and growth; and (iii) innovation processes, which shows the process of supplying new products and services. The innovation process also includes the research and development process, design and delivery, and launching products. The internal process perspective integrates the internal business activities to ensure that the companies' products and services meet the requirements of stakeholders. Kaplan (2010) suggests some metrics for the internal process: product defects, total manufacturing time, order entry time, and supplier defects to examine the performance of the BSC.

Farooq and Hussain (2011) suggest that the main concern of the internal process is to improve order processing, delivery, manufacturing, and products, to satisfy the customer and increases financial returns. To do this, managers should carry out a continuous internal analysis not only to assess the internal processes of the organisation, but also to review innovation. This is particularly important since global competition has decreased the amountt of time organisations have to bring their products to market successfully.

2.2.3 Learning and growth

The learning and growth perspective is the fourth BSC perspective; it is generally a leading indicator enabling companies create long-term growth and improvement. The learning and growth perspective (or innovation perspective) is a framework for quantitatively assessing employee satisfaction, productivity, and retention. The main objectives of this perspective are employee goals, information systems, and organisational alignment (Kaplan, 2010). Kaplan and Norton (1992)

suggest that organisational learning and growth includes three main capitals: human capital, information systems capital, and organisational capital. According to Farooq and Hussain (2011), this perspective is the foundation of BSC strategy success since it involves employee skills and information systems (e.g. Kaplan and Norton (1996)). This perspective can include factors such as employee satisfaction, alignment of employee skills with jobs, the number of employee suggestions implemented, and hours of employee training.

The learning and growth perspective is concerned with the enhancement of employees' skills by applying different techniques. This can include relocating them to other departments, implementing incentive programs designed to motivate employees to provide suggestions, and the receipt of education or training and/or tenure through continued employment (Niven, 2002). In addition, Kaplan and Norton (1992) suggest that companies have to invest in 're-skilling' employees, enhancing information technology and systems, and aligning organisational procedures and routines. Improving the employees' skills may increase employee satisfaction and employee retention, which in turn creates a new competitive environment.

Kaplan and Norton (1992) suggest that employees' incentives should be aligned with overall organisational success factors. Kaplan and Norton (2004a) claim that the success of BSC depends on the involvement of employees in the BSC learning process. They claim that the corporate cultural attitudes related to both individual and corporate self-improvement is one of the main determinants of BSC success. They suggest that information technology is key and important for KM to produce a continuous learning process at all business levels. Metrics can be put into place to guide managers in focusing training funds where they can help the most. Learning and growth constitute the essential foundation for success of any knowledge-worker organisation. Kaplan and

Norton (1992) emphasize that learning is more important than training since the learning process includes things like mentors and tutors within the organization.

Kaplan and Norton (1992) suggest three main measures for the learning and growth perspective. The first measure is employee capabilities, which include employee satisfaction, staff turnover, productivity, and the number of employees qualified for key jobs. The second is information technology, which includes the information coverage ratio and return on data. The third measure is motivation and alignment, which includes suggestions received, suggestions implemented, and rewards provided.

Table 2.1 summarises the main objectives of each BSC perspective, according to Kaplan and Norton 1996, 2001a, and 2004.

Table 2. 1 The main objectives of each BSC perspective 2001a, and 2004

BSC perspectives	Objectives	Stakeholder
1-Financial perspective	Profitability	Shareholder
2- Customer perspective	Market share	Customer
3- Internal process perspective	Productivity, product leadership and public responsibility (legal and ethical behaviour, and responsibility to stakeholders including shareholders, vendors, dealers, distributors, and communities)	Customer and shareholder
4- Learning and growth perspective	Personnel development, employee attitudes, balance between short-range and long-range objectives	Employees

Source Kaplan (2010)

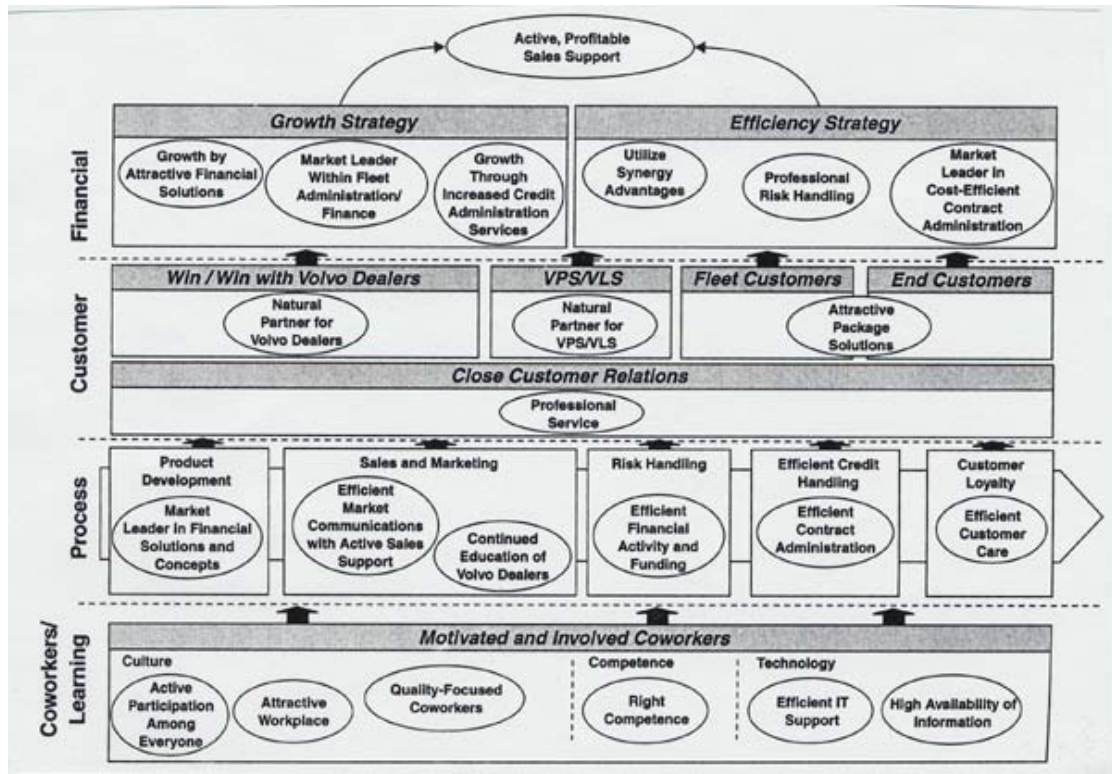
2.2.4 BSC is a strategic management tool

Kaplan and Norton (1996) define BSC as a tool that translates an organisation's mission and strategy into a comprehensive set of performance measures. These then provide the framework for a strategic measurement and management system. Kanji and Moura E Sá (2001) and Atkinson (2006) see BSC as a strategic management system making the strategy everyone's job, thus creating common understanding within different management levels. This strategic tool enables firms to clarify and update

corporate strategy; communicate strategic objectives throughout the organisation; align stakeholders' needs and business objectives; work holistically, allowing all employees to see how they contribute to organisational success; link strategic objectives to targets and budgets; build a reward system linked to the strategy; and obtain feedback on the effectiveness of the strategic review. In addition, this innovation in strategic management enables companies to look at the broader area of their business, specifically the four different perspectives of management as suggested by Kaplan and Norton (1992). Bourne (2002), Nørreklit (2003), and Speckbacher et al. (2003) suggest that BSC as a tool dominates other performance management frameworks. A similar finding is verified by Marr and Adams (2004). Kaplan and Norton (1996b) claim that BSC is the cornerstone of a new strategic management system since it positively links an organisation's long-term strategic intentions with its short-term, operational actions.

In the strategy map book of Kaplan and Norton (2004a), the four perspectives of BSC are aligned in a manner of cause-and-effect. In this book, companies state their corporate objectives within each of the four perspectives, and then align the management hierarchy by assigning each manager's scorecard with more detailed objectives in each of the four perspectives. Thus, each manager's performance measures contribute to the strategy. **Figure 2.2** presents a strategy map that aligns the perspectives of BSC with the strategy.

Figure 2.2: A strategic map that aligns BSC with business strategy



Source: Kaplan and Norton (2004a)

According to Kaplan and Norton (2004a), a strategy map provides a visual representation of the organisation's strategy. Once created, the strategy map is a powerful communication tool that enables all employees to understand the strategy and translate it into actions that they can undertake to help the organisation succeed. In addition, a strategy map provides the structure for meetings where managers can quickly see which parts of their strategy are succeeding and which parts are failing.

Kaplan and Norton (2001b) define five principles to achieve the business strategy based on BSC. In the first principle, firms translate the strategy into operational terms. During this stage firms translate their strategy into the logical architecture of a strategy map. Then, detailed critical success factors are specified for BSC growth strategies. This process creates a common and understandable point of reference for all firm units and employees.

In the second principle, companies align BSC to the strategy. At this stage, all business units and different management levels contribute in aligning the strategy. Thus, no single department or manager has complete dominance to influence the desired outcomes. Organisations include different business units and specialised departments, each with their own strategy and operation, which together set the corporate strategy. Each department comes with its own culture and knowledge. For instance, departments of finance, production, and marketing, have their own bodies of knowledge, language, and culture. The presence of these departments with their own culture and knowledge may create a huge difficulty communicating and coordinating across these specialty functions.

According to Kaplan and Norton (2004a), strategic performance is more than the sum of its departments; individual strategies must be linked, aligned, and integrated. Due to the difficulties in communication between departments, the corporate level should define the linkages expected to create synergy and ensure that the linkages actually occur. To do this, each department should identify a strategy appropriate for its target market in light of the specific circumstances it faces. The manager in each department should choose local measures that are linked to the central scorecard measures. Then, strategy-focused organisations must align their human resources, information technology, and finance. This alignment is achieved with agreements between each department and the business units. This agreement becomes the central part of BSC constructed by the functional department. The agreement between the functional and the services departments can be achieved through continuous negotiation.

The financial objectives are derived from the negotiated budget for the department. Once the local strategies and objectives are integrated, they reinforce each

other. This alignment allows corporate-level collaborations to emerge in a form in which the whole exceeds the sum of the individual parts.

The business strategy should be aligned with the external stakeholders. Several companies build BSC based on the relationships with key suppliers, customers, outsourcing vendors, and joint ventures. Companies use such BSC with external stakeholders to be explicit about the objectives of the relationship, and how to measure the contribution and performance of each stakeholder to the relationship in ways other than just price or cost. Thus, no single department or stakeholder dominates the desired outcomes of BSC. Thus, according to Kaplan and Norton (2004a), BSC provides the mechanism that engages managers from multiple departments and agencies to discuss how they can contribute to achieving high-level strategic objectives.

The third principle of the strategy concurs that once employees understand the purpose and are motivated, the strategy becomes everyone's every day job, and in turn it will succeed. Kaplan and Norton (2001b) imply that in the focussed strategy, all employees must understand it and perform their day-to-day activities in ways that contribute to the success of that strategy. The role of strategic managers is to ensure that their employees have understood the strategy, since they could not implement BSC strategy by themselves. They contribute by providing actions and ideas from every single employee in the organization. However, in the real world, senior managers understand that individuals are often unable to create valuable ideas since they are far from corporate and regional headquarters. Thus, the success of BSC acquires executives to communicate and educate all of these people who are far away from the strategy. Some managers are reluctant to provide strategic knowledge, feeling that valuable information will be leaked to their competitors or media. Kaplan and Norton (2001b) suggest that to understand BSC, employees should learn about customer satisfaction,

market share, database marketing, and financial outcomes. Some executives think that employees are incapable of understanding these measures (Kaplan and Norton, 2001b). Thus, in the face of this problem, managers should make intensive efforts to educate employees at all levels of the organisation about key strategic components.

Kaplan and Norton (2001b) claim that applying BSC enables the personal objective to be integrated across the organization and linked to the strategic objectives. In turn, understanding of the strategy will be spread out. In BSC, companies should communicate their strategy and scorecard holistically and at all levels. Individual employees at lower levels are challenged to develop their own objectives in light of the broader strategy. This process enables individual employees to find new ways to do their jobs and identify areas to which they can contribute. To secure such understanding and thus the contribution of each individual employee, Kaplan and Norton (2001b) encourage organisations to link their incentive compensation to BSC. Executives must be confident that they are using valid and reliable data collection processes to support the measures.

The four principle of the strategy is the continual process. Kaplan and Norton (1996) consider the continual process as essential strategic learning for the organisations. They coin the concept of “double-loop” strategic learning to ensure that the strategy is revised. Kaplan and Norton (1996) assume that the double-loop learning concept highlights the need for strategic learning. They aim to encourage continuous learning about strategy development. Therefore, strategy development is an endless process driven from achievement of current business activities.

Kaplan and Norton (2004b) recommend that companies should carry out short-term regular meetings in addition to annual strategic-planning meetings. They reported that 85% of managers spend less than one hour per month discussing strategy.

Accordingly, Kaplan and Norton claim that BSC provides a double-loop learning process, which integrates tactical and strategic management levels to manage the strategy. As defined by Argyris (1991), the concept of double-loop learning in which an individual, organization or entity “is able, having attempted to achieve a goal on different occasions, to modify the goal in the light of experience or possibly even reject the goal” To do this, companies have to consider the following three important processes: first, organisations should link their strategy to the budgeting process. In this step, BSC is used as an auditing tool to evaluate potential investments and innovations. Companies should have an operational budget to produce and deliver existing products or services. Companies should also have a strategy budget that allows them to develop entirely new capabilities and skills, targeting new customers and markets. This process allows companies to secure the long-term objectives from short-term adjustment. Second, to make strategy a continual process, BSC introduces a simple management meeting to review the strategy. Kaplan and Norton (2004b) suggest monthly or quarterly management meetings to discuss BSC strategy, so that a broad range of managers work together. According to Kaplan and Norton (2004b), the purpose of these meetings is that new ideas are generated and new learning environments are started. However, they find that some managers consider these meeting a waste of time. They suggest that for companies to overcome this problem, the company must create open reporting, in which measures and performance results are made available to everyone in the organization. Thus, the strategy is everyone’s job and is initiated by giving every employee the knowledge that they need to do their jobs to make it work. This creates a set of cultural issues that transform traditional, hierarchical approaches into information and power. Finally, a process for learning and adapting the strategy evolves. The central aim of this process is to produce actions that create long-term financial success. BSC

designs a process through the formula of cause-and-effect linkages in the strategy. This causal relationship switches on feedback systems starting from reporting on actual results and ending with achieving the strategy. Kaplan and Norton (2001b) emphasise the importance of managers' meetings in validating and refining the policies and the strategies being applied to drive service quality and customer retention. In addition, these meetings are conducted for new strategic opportunities that are not currently in their BSC. They suggest that companies should continually create ideas and learning within the organisation rather than waiting for next year's budget. Consequently, the priorities and BSC measures are updated in a timely manner. These regular meetings help companies to continually test, formulate, and revise the strategy. Using BSC in this way allows companies to gain a continual control system. This system is associated with four defining characteristics: (i) information in the control system provides an important and recurring agenda for senior managers; (ii) this system requires frequent and regular attention from operating management levels; (iii) data produced by the system should be interpreted and discussed in face-to-face meetings with senior and operating managers as well as their subordinates; and (iv) it transforms BSC from performance measurement to strategic management.

The fifth principle of the strategy-focused is mobilizing leadership for change. Kaplan and Norton (2001b) consider BSC a management tool for change. BSC identifies areas where the firm's strategy is successful and where it needs improvement. Once identified, companies should then change their policies or procedures to address the areas of improvement. Organisation strategy requires change in every part of the organisation. Thus, strategic management requires teamwork to coordinate and to implement these changes. This change is a continual process, which focuses on the change initiatives and on performance against desired outcomes.

If strategic leaders are not energetic leaders of the process, change does not occur. The process of implementing BSC is considered a project for change, so suitable leaders must be in place. According to Kaplan and Norton (2001b), the initial focus is on mobilisation and creating momentum, to get the process launched. Once mobilised, the focus shifts to governance to install the new performance model. Gradually and over time, a new strategic management system that institutionalises the new cultural values is evolved. Convergence to the new management system may take from two to three years.

Kaplan and Norton (2001b) suggest applying Kotter (1996) eight step approach to carry out the culture of change. These steps are:

1. Establishing a sense of urgency
2. Creating the guiding coalition
3. Developing a vision and strategy
4. Communicating the change vision
5. Empowering employees for broad-based action
6. Generating short-term wins
7. Consolidating gains and producing more change
8. Anchoring new approaches in the culture.

For a successful implementation of BSC, organisations are recommended to apply this model. However, Kaplan and Norton (2001b) show that several companies face many difficulties because implementing BSC may create a culture against the

change. Employees often see change as a threat to their jobs. Thus, the role of executives is to make the need for change obvious to all, and provide reassurance that change is for the better.

Once the change process is achieved, executives establish a governance process to guide mobilisation. This process defines, demonstrates, and reinforces the new cultural values of the organization. In this process, companies should use different types of communication for all components of the new management approach. Successful executives recognise that a strategy is a continual process that evolves to reflect changes in the competitive market environment.

2.2.5 BSC is a summarised performance measurement tool

Kaplan and Norton (1996) consider that BSC provides clear, understandable, and achievable measures. They claim that the number of measures does not matter, if it is not absorbed by the company. The importance of these measures is clear, understandable, and achievable, and whether they represent a single strategy. Furthermore, to increase the impact of BSC, measures should also be easily understood, which makes them easy to communicate. In addition, Niven (2002) points out that managers should have common definitions of measures for the sake of alignment, and the single strategy. Accordingly, when BSC is viewed as the manifest action of a single strategy, then the number of measures does not matter. They suggest that between 15-25 measures is an ideal number for companies to formulate and communicate with their strategy. Niven (2002) argues that selecting the measures is a fundamental process in building BSC. The measures track the story of the organisation's strategy; therefore, they need to be linked to the strategy. Niven (2002) and Kaplan and Norton (1996) agree that companies should have a number of operational "diagnostic" measures, i.e.

measures that are important in day-to-day functions, and strategic measures "drivers of business".

Olve and Wetter (1997) suggest that the number of measures in each perspective should not at the most exceed 10, but ideally should stay between 3 and 5. Anthony and Govindarajan (2001) suggest that too few measures may lead to over-simplification and too many may lead to loss of focus. In addition, Schroeder and Clark (1998) explain that the cognitive approach of human information processing, suggests that humans do not easily understand and absorb too many measures and that large quantities of information may therefore weaken the decision making process.

Companies may have hundreds of measures, which may raise questions, such as: are these measures necessary; are they insufficient; are they controllable; are these measure what we expect, and are these measures considered as drivers for business? BSC measures should be subject to intensive and extensive scrutiny from senior- and middle-level managers. In addition, these measures should be evaluated on the basis of new information about competitors, customers, markets, technologies, and suppliers. Choosing the right measures and right number of measures is definitely one of the most crucial steps in building BSC. According to Kaplan and Norton (1993), if the organisation uses a developed information technology, the number may also rise accordingly

Kaplan and Norton (1992) claim that the measures suggested by BSC are quantitative and are not subjective measures (such as "good" or "fair"). Therefore, these measures are always relevant and accurately measured for what they intend to measure. The success of these measures, according to Niven (2002), merely depends on the availability and accessibility of data from the highest to the lowest levels.

2.2.6 BSC is for the private and the public sectors

Kaplan (2001) mentions that BSC also fits PSOs and NPOs with some amendments. These amendments are a fundamental issue because the nature of the strategy and drivers in PSOs and NPOs are often substantially different to the private sector with its profit motive. According to Kaplan and Norton (1996), once these issues have been considered, BSC may operate effectively in NPOs as well as in PSOs.

According to Olve and Wetter (1999), PSOs are perceived as having a short-term perspectives, since political bodies drive the short-term action agenda. These political bodies seem to support the short-term examination of the use of BSC in PSOs. Thus, building a BSC based on this strategy is difficult for several reasons. In addition, external factors such as the influence of political leaders often enforce budget constraints without influencing the mission and vision of the organisation. The impact of media interpretation and local government interventions can also require short-lived resolutions to solve perceived problems. These factors make PSOs focus on the short-term objectives that are not linked to the long-term strategy.

These factors motivated Kaplan and Norton to develop a BSC system that fits the need of NPOs and PSOs. Tonge and Callaghan (1997) claim that BSC may suit NPOs and PSOs because of the growing similarities between the public and private sectors. Kaplan (2001) claims that NPOs and PSOs do not look at revenue growth; therefore, a crucial component of BSC is flawed when applied to the public sector. Public companies that only use BSC to look at revenue issues will gain less benefit. Therefore, public organisations using BSC should recognise the substantially different issues reflected in the public sector. In agreement with this view, Kaplan (2001) recommends that the customer perspective should be the top priority of NPOs and PSOs, in place of the financial perspective. Olve and Wetter (1999) argue that these

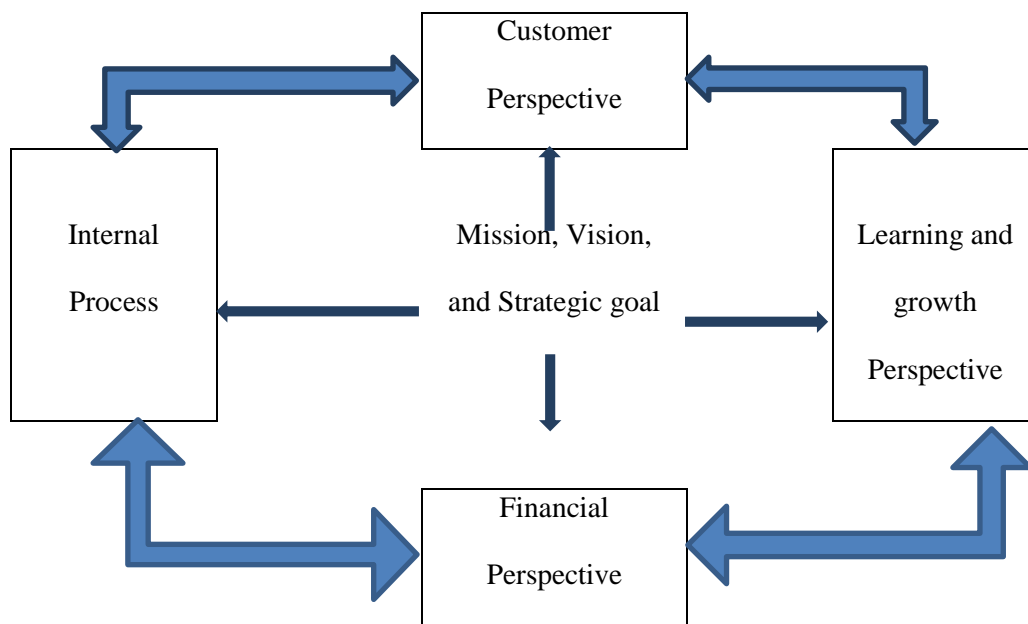
ideas create problems for these public organisations since they do not build their strategies on the customer base.

Niven (2002) lists the critical differences in BSC for PSOs and NPOs compared with the private sector:

- the difficulty of performance measurement due to outcome-based rather than output-based endpoints;
- using results to punish not reward;
- the blame culture; the lack of clarity in mission and vision as well as objectives;
- underestimating negative results due to political and social factors;
- attributing drawbacks to inefficiency or ineffectiveness without recognising real achievement;
- focus on the short-term;
- the domination of some political agendas;
- unqualified business leaders;
- fear of business markets;
- lack of support for change;
- absence of long-run continuity and plans;
- cost pressures from political parties or tax payers;
- absence of personal and organisational motivation.

Niven (2002) agrees with the idea of Kaplan and Norton that the financial perspective should be used as current short-term drivers and that the customer perspective is considered the ultimate goal of PSOs and NPOs (**Figure 2.3**).

Figure 2.3 The nature of BSC in NPOs and PSOs.



Source: Niven (2002)

Shifts to the customer perspective suggest that the mission and vision of PSOs and NPOs is customer-oriented rather than financially-based. Sawhill and Williamson (2001) claim that NPOs in particular face challenges in measuring the organization's vision, as they are incapable of measuring financial performance. Such financial measures are general and are mostly related to the delivery of services. Sawhill and Williamson (2001) suggest that instead, NPOs should concentrate on three main areas. These areas include measuring the efficiency resource use, the efficiency of employees, and progress in achieving the vision. Kaplan (2001) finds that NPOs are more operational than the strategic in the adaptation of BSC since they are more focussed on short-term outcomes. For example, they focus operational issues such as increasing process efficiency. Kaplan (2001) and Sawhill and Williamson (2001) mention that when shifting to the strategic-oriented BSC, NPOs should have a clear a vision as possible. Sawhill and Williamson (2001) also recommend establishing micro-level goals which incrementally lead to achieving the overall strategic goals of NPOs.

Kaplan (2001) mentions that most NPOs feature an operational excellence strategy. In addition, they note it is unusual to find an NPO focusing on a strategy that can be thought of as product-leadership or customer intimacy; therefore, their BSC tends to be closer to the Key Performance Indicators (KPI) than to the true strategy scorecards. However, Kaplan (2001) provides several examples of successful implementation of BSC in public organisations. For example, the City of Charlotte municipal, North Carolina (USA) applied a customer-based strategy by selecting an interrelated set of strategic themes. United Way of South Eastern New England (USA) also applied a customer (donor) intimacy strategy (Kaplan and Kaplan 1996). Other examples from NPOs are the May Institute and New Profit Inc- USA. They also apply a successful product and leadership position strategy. In particular, the May Institute applies partnerships with universities and researchers to deliver the one of best behavioural rehabilitation care in the World. It also introduces a new selection, monitoring, and governing process unique among other NPOs. Montefiore Hospital, New York, US, applies a combination of product leadership and achieves excellent customer relationships, through its centres and new patient-oriented care. Montefiore Hospital aims to build market shares in its local area (Kaplan, 2001).

Kaplan (2001) also suggests that PSOs should measure their success by how effectively and efficiently they meet the needs of their voters. Placing the constituencies at the top of their BSC can be measured by reduction in measurable factors such as poverty, illiteracy, malnutrition, homelessness, disease, pollution, or discrimination or an improvement in environment, health, or safety. According to Kaplan and Norton (1996), these examples show that both PSOs and NPOs can build a strategic and competitive advantage. Companies must also move from operational continuous

improvement to a strategic continuous improvement. This strategic thinking is important for fulfilling the organization's mission.

Kaplan and Norton (1996) suggest three high-level perspectives for PSO and NPOs. First is cost incurred, which focuses on the importance of operational efficiency. In this perspective NPOs should include both the expenses of the agency and the social cost it imposes on citizens and other organisations through their operations (Kaplan and Norton, 1996). The organisation should minimise the direct and social costs required to achieve its mission.

The second perspective is the value-created perspective, which suggests how locals or citizens benefit from being customers of NPOs. However, it is difficult to quantify the utility of citizens using financial measures. For example, it is hard to measure financially the benefits resulting from improved education; improvement in the working environment; reduced pollution; and better health and safety. Kaplan and Norton (1996) claim that the outputs of BSC can be good measures. There are countless examples using output rather than outcome, such as the mortality rate; the crime rate; the number of complaints; the density of polluted water; and percentage of students acquiring specific skills and knowledge to name a few. In addition, the citizens and their representatives will ultimately strike a balance between the benefits supplied by NPOs and the social and agency costs.

Third, legitimizing support suggests that NPOs and PSOs should treat their donors as customers, since donors fund public and NPOs. To ensure continued financial support for their activities, NPOs and PSOs should try to meet the objectives of their funding bodies.

In summary, NPOs and PSOs have three additional high-level objectives that they must satisfy to achieve their strategy: create value at minimal cost, develop

continued support and commit to their funding sources. From these three high-level objectives, the organisations should then proceed to identify their objectives for internal processes. Learning and growth as a result of this should enable BSC to achieve the main strategy of the organisation. The remaining BSC objectives, from the core perspectives can then be moved toward achieving the high-level objective.

Since the mission objective may show only irregular progress, the measures in the four main perspectives of BSC must provide short- to intermediate-term objectives and feedback.

Kaplan (2001) suggests that in NPOs or PSOs, the top management level should work hard to deploy BSC to the lower individual level. Kaplan (2001:359) gives the following example on the importance of spreading awareness of BSC to the lower levels: *"United Way of Southeastern New England (UWSENE), provides a poignant example. The chief financial officer went to talk to the building's custodian. The custodian told him that strategy was something that people at the top floor did, not him. His job was to plough snow, sweep floors, and remove trash. These activities didn't have anything to do with strategy or mission. The CFO explained to him that his efforts were very important to UWSENE. "The tenants in the building generate considerable rental income for us. If we maintain the property well, tenants and United Way employees will be pleased to work in the facility. That will help us generate more rental income and help fulfil our 100% guarantee to donors, and attract, retain, and motivate our employees. In addition, donors and volunteers who visit our building will value a clean building, attractive landscaping, and streets from which the snow has been removed. I could see the light of recognition cross his face." The custodian said, "You're right; I can see now how what I do is important." The BSC lets every employee see how he or she fits into the organization. Communicating the top-level and*

departmental scorecards throughout the organization allows each individual to align his or her day-to-day actions with the organization's strategic objectives. This is the power of the scorecard — analogous to the organizing effect of a laser — that focuses the entire organization on the strategy to produce brilliant results".

2.2.7 BSC, culture - and criticisms

Smith (1998a) defines culture as a number of levels, namely groups, corporate and social, that may influence the change process. Brown (1998) defines the organisational culture as a set of behavioural and or cognitive characteristics. Chavan (2009: 402) suggests the following explanation for its importance in organisational culture.

Mike Conway, Director of Corporate Development and Strategy, also says without the full personal support and endorsement of the senior executive team, the transition to a true performance empowerment culture, would not have been possible... integration and ownership are generated by the on-going interactions between leadership and empowerment. This has been achieved in Standards Australia by creating and maintaining an organizational culture where significant authority and decision making is shared with employees (Chavan, 2009: 402).

The existing literature suggests that the main objective of BSC is to improve organisational performance. To do this, companies have to facilitate the flow of information through top-down and bottom-up channels. This may focus the attention of staff at all management levels on what is perceived to be the key success factors for the strategy. In addition, the process of learning may enhance the understanding of the main drivers of business success. Woodley (2006) suggests that one should highlight the importance of culture when applying BSC. Ignoring the impact of culture on BSC may inhibit the understanding of BSC, its drivers, and this in turn may deteriorate the performance measures. Thus, Kaplan and Norton (2001a) include culture in the learning

and growth perspectives of BSC (see the strategic map, figure 2.2). They consider that the role of culture is to deliver strategic objectives.

Chavan (2009) argues that BSC requires substantial changes in culture within the organisation. BSC requires understanding, commitment and support from the top management to the lower management levels. This culture helps accept the new approaches and members within the organisation. Thus, the organisation will find new things to measure and new goals in different areas. This culture makes BSC more balanced and effective in supporting a living, growing, and viable organisation. Different organisations have quite different needs, market areas, people, products and services, and will end up with significantly different BSC. Kaplan and Norton (2001a) build their BSC on the mission and the organisational strategy, derived by the vision. Hacker and Brotherton (1998) stress the importance of a firm's values in delivering the organisation's mission. The organisational values identify the underlying beliefs of the organisation that create corporate identity and impact on people's behaviour. This debate highlights the importance of the relationship between BSC and culture.

Hacker and Brotherton (1998) and Kaplan and Norton (2004b) argue that for BSC to be an effective measurement system, it should have the power to change culture, making it more performance orientated. According to Cartwright (1999) cultural values are the key to continuous business improvement. In addition, Cartwright (1999) maintains that it is senior managers who drive the organisational culture. Brown (2000) and Kotter and Heskett (1992) suggest that in strong cultures, leadership only has an impact when changed as a result of a crisis.

The central aim of BSC is to create an environment of change by making organisations more successful, which is what the culture aims for. Kaplan and Norton (2001a) claim that with the implementation of BSC, the businesses environment has

changed to become more knowledge-based. One might argue that if the nature of a business has changed then its culture has to change too accordingly. Kaplan and Norton (2001a) also suggest that BSC empowers tangible and intangible assets to be linked through the cause and effect model and that culture should be incorporated as a key intangible asset for value creation. Brown (2000) suggests that for successful BSC, organisations should embed their values in it. He also perceives culture as a unique character that cannot be copied from one organisation to another.

Brown (2000) and Kotter and Heskett (1992) suggest that some types of organisational culture may inhibit change and thus inhibit the role of BSC as a strategic management tool. In such cultures, understanding the implementation of BSC will be limited because it leaders' authorities will be limited and hence they tend to be against change. Cartwright (1999) suggests that traditional leaders should be more flexible in achieving the culture of change. Brown (1998) assumes that the presence of many national cultures may create multiple organisational sub-cultures, opposed to collectivism.

Carmona et al. (2011) suggest that culture may be influenced by individual or collective thinking. Hofstede (1997) claim that in individualistic cultures, a variety of formal and informal mechanisms stress the importance of individual preferences. For example, in the USA, a culture which is highly individualistic promotes and rewards employees based on their individual achievements. In the context of BSC, Carmona et al. (2011) explain that the organizational strategy reflects the shared values and cultures of the stakeholders. Thus, employees and managers may face conflicts between their own beliefs and attitudes and between the appropriate individual objective and corporate objectives. The absence of effective communication between employees and their managers can undermine the efficacy of BSC. Therefore, employees may resist

BSC implementation and fall back on traditional values. Essential resistance to BSC may be driven by managers who believe that identified BSC goals have little chance of success.

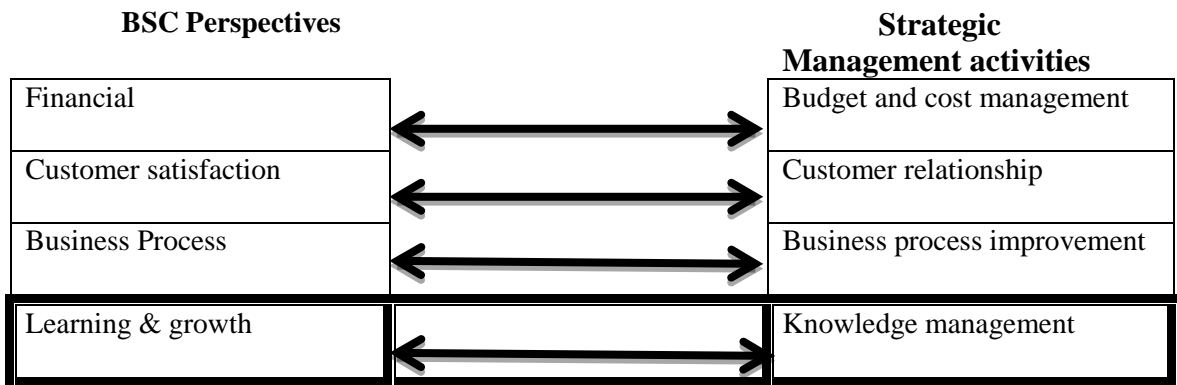
However, in collectivist cultures, such as in Spain and Middle Eastern countries, cultural mechanisms tend to encourage the importance of one's interdependence with the group (Frucot and Shearon, 1991). In such cultures, the importance of the group is dominant. Thus, companies see individuals as part of an encompassing social relationship, recognising that one's behaviour is determined and organised by what one perceives to be the thoughts, feelings and actions of others in the relationship (Markus and Kitayama, 1991).

Woodley (2006) suggests that organisational culture is effectively influential in the implementation of BSC. He demonstrates that there is a relationship between the culture and the success of an organisation. Though, one should not exclude that impact of the national culture as well as both will affect the way individuals interact within the organisation. Brown (1998) and Cartwright (1999) explain that if the organisational culture is too powerful, it will inhibit individual sub-cultures, making it difficult to identify and manage issues at the lower level. Brown (1998) expounds on the importance of formal organisational structure and environmental relations in explaining the role of culture. This may create a new cultural regime and may change employee's behaviours.

2.2.8 BSC is a knowledge management tool

Many companies use the BSC tool as a KM process within the organizational structure. In particular, the learning and growth perspective is directly linked to KM. **Figure 2.4** below presents the relationship between KM and learning and Growth (Wegmann, 2007).

Figure 2.4 The relationship between KM, learning and growth



Source: Wegmann (2007).

Chan (2006) affirms that the failure of more than 70 per cent of BSC is due to the lack of information management systems. Kaplan and Norton (2004a) explain that the information capital requires an information technology portfolio of infrastructure to support internal process. The infrastructure includes two categories: transaction processing applications and analytic applications. Transaction processing applications automate the basic repetitive transactions of the enterprise. Analytic applications promote analysis, interpretation, and sharing of information and knowledge. Kaplan and Norton (2004a) suggest that executives must understand how to plan, set priorities for, and manage an information portfolio that supports their organisation's strategy. Al-Mudimigh (2009) finds that applying a management information system increases the value of sharing information among all stakeholders. In addition, the information system prevents errors, decreases information asymmetry, and tracks and provides feedback about events. Furthermore, the management information system improves communication, makes knowledge more readily accessible, assimilates key pieces of information, assists with calculations, performs checks in real time, assists with monitoring, and provides decision support. Bates and Gawande (2003) claims that information systems can assist in the flow of key data related to internal processes in the health care services.

Andersson et al. (2003) claim that management information systems help managers and data providers to share common understanding of work routines, information demands, and other central preconditions at the clinical level. Furthermore, management information systems enable healthcare managers at different management levels to understand, visualise and conceptualise activities, goals and the strategies. Martinsons (1999) finds evidence that a BSC information system can be the foundation for a strategic management system, provided that appropriate measures are identified and key implementation obstacles are overcome.

Stewart and Mohammed (2001) summarise the advantages of applying information systems in business organisations. Such advantages include: facilitating document transfer and handling; enhancing coordination between project participants; reducing response time to answer queries; establishing and supporting the project alliance; empowering project participants to make decisions; enabling immediate reporting and receiving feedback; and identifying errors and/or inconsistencies. Stewart and Mohammed (2001) and Janhangiri and Dashti (2012) suggest that the information system of BSC satisfies three objectives. First, the information system categorises the measures and goals into levels (project level; business level; organisational level). Second, the information system creates a systematic relationship between these measures and the goals of every noted level. Third, IS improves communication and understanding of performance evaluation across the organization.

Janhangiri and Dashti (2012) suggest that BSC measures should have a goal at the decision making level. For example, at the organisational level, measures must be focused on the duty and the general goals of the organisation. At the business level, measures should stabilize processes and programs of the information system. More detailed reports than those at the organisational level should also be sent to deliver more

information to beneficiaries. Measures at the business level must be focused on operational improvement. At the project level, measures are based on activity and duty information that are used for executive and applied decisions. **Table 2.2** summarises the criteria of spreading the knowledge of BSC through the process of a management information system.

2.2.9.1 Definition of Knowledge Management

To begin with, it must be acknowledged that as Bhatt (2001) has observed, the term ‘knowledge management (KM)’ is as complex to define as the term ‘knowledge’ itself. Furthermore, as Earl (2001) argues, despite the sizeable literature on knowledge management, there appears to be no common or universally accepted definition of the concept. The most prominent and representative of the range of accepted definitions include those from analysts such as Sallis and Jones (2002), and Graham and Thomas (2008). They suggest that the concept can cover everything from the application of new technology to harnessing intellectual capital in an organization. The system also relates to concepts including collaborative work, organizational learning, organizational memory, information technology, and information sharing.

Table 2. 2 Summarizes the criteria for spreading the knowledge of BSC

Indicators related to the competitive advantages	
Cost efficient	Time saving
Improved quality of documentation	Reduced number of design errors
Number of customers satisfied	Simpler procedures
Indicators related to the operational	
Transfer and document management facilitated	Improved coordination between project participants
Response time to problems reduced	Project continuity established and supported
Decision making of project participants strengthened	Errors and incompatibility identified

Decision-making process based on improved information technology	Coordination and communication based on improved information technology
Indicators associated with the technology / system	
Suitable outputs and applications	Improved tool reliability
User-friendly	Suitability of the location
Accuracy and quality of the tool / system	Security
Indicators associated with the user- centred	
Level and frequency of information technology courses	Frequency and level of support courses
Level and frequency of information technology optimization	Information technology applications and tools for the organization
User-friendly tools and information technology applications	Effective use of information technology
Indicators related to the strategic competition	
Improving customer satisfaction	Improving corporate image
Attracting more qualified customers	Enabling international partnerships
Increasing organization competition	Improving computer literacy

Source: Janhangiri and Dashti (2012)

Davenport et al. (1998) affirm that KM is concerned with exploitation and development of the ‘knowledge assets’ of an organization, with a view to promoting/advancing the objectives of the organization. Such knowledge to be managed includes explicit (documented) knowledge and tacit (subjective) knowledge. They also suggest that management involves all those processes which are associated with the identification, sharing, and creation of knowledge. Bhatt (2001) builds on this explanation with the description that KM includes the processes and procedures governing the creation, dissemination, and use of knowledge. The processes fuse organizational structures and people with technology in order to better leverage resources within an organization.

The shared view of O’Dell et al. (1998) was that KM may be regarded collectively as those strategies and methods necessary for the exercise of identifying, capturing, and then leveraging knowledge so to assist and benefit a firm in order to compete. Beckman (1999) advocates the view that KM relates to the formalization of access to experience, expertise, and knowledge in order to generate new potential,

encourage innovation, enable superior performance, and enhances customer value. Similarly, Davenport and Prusak (2000) posit KM to be a fluid blend of framed experience, contextual information, and expert insight that can provide a framework for incorporating and evaluating information and new experiences.

The viewpoint of Egbu (2004) is that KM is the capacity of an organization to innovate and continuously improve. They suggest that KM is also dependent on the effective sharing and exploitation of its collective knowledge. Rao (2005) advocates KM to be a systematic discipline, and a set of approaches, which facilitate information and knowledge in creating value within an organisation. To Koskinen and Pihlanto (2008), KM encompasses a range of practices employed by organizations to identify, create, represent, and share knowledge; further, it develops awareness and learning within the organization. According to Madhoushi and Sadati (2010), is a planned, structured process that manages the creation and acquisition, sharing and transfer as well as the application of tacit and explicit knowledge as an organisational asset to encourage innovation and to enhance competitive advantage.

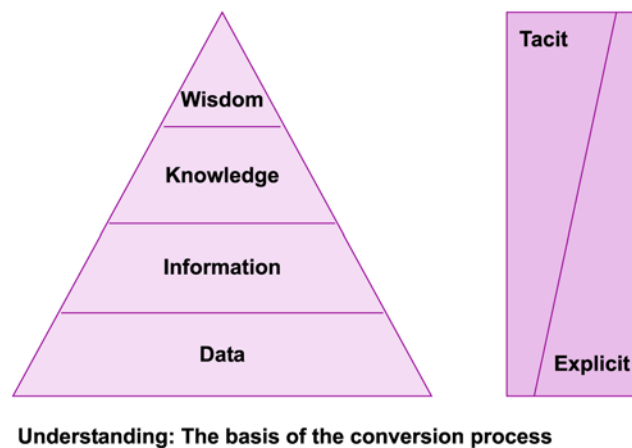
As can be observed from these representative samples, most of the definitions focus on managing knowledge that currently exists within the organization. However, such definitions do not sufficiently take into consideration the importance and significance of 'knowledge creation', which is a vital resource for competitive advantage. For the most part, the definitions focus on making available the knowledge, *per se*, yet pay modest attention to the development of capabilities that are necessary to exploit available organisational knowledge. Organisational knowledge is a determinant of the degree to which an organisation could benefit from its knowledge (Haas and Hansen, 2005). Furthermore, current definitions focus on limited characteristics of

organizational KM and do not necessarily consider the vitally important strategic dimension.

2.2.9.2 Knowledge Hierarchy

The most common theme in KM literature, posited by Zack (1999), Davenport and Prusak (2000), Clarke and Rollo (2001), and Hicks et al. (2006), is that of ‘knowledge hierarchy’.

Figure 2.5 The knowledge hierarchy (Hicks et al., 2006)



A sequential knowledge hierarchy exists whereby ‘data’ are transformed into ‘information’ and that ‘information’ is then converted into ‘knowledge’. However, Tuomi (2000) and Hicks et al. (2006) give different value regarding this sequential nature. They advocate that in a ‘value hierarchy’, ‘knowledge’ is considered to be high-order information; whereas ‘information’ is deemed to be high-order data.

Untreated (raw) data provides depictions of reality, which is drawn upon to produce information. This procedure involves data arrangement, categorization, analysis, and contextualization (the context can comprise virtual, physical, or mental elements or any combination of these). Galliers and Leidner (2009) posit distinct

'data' as context-free, and argue that it can be understood in many different ways for various purposes. Similarly 'information' is processed data and is context-dependent. Information systems need to include the human dynamic in the act of interpretation /analysis in order for the data to have meaning. Vlada and Nica (2010) have stated that 'knowledge' may be identified as information-in-context, although 'information' is not necessarily instinctively 'knowledge'.

2.2.9.3 Types of Knowledge

In an organisation, the KM dimension is the most significant. It categorizes knowledge according to its availability and presence. Key questions related to the type of knowledge include:

1. Is it only accessible for the owning human being?
2. Can it be communicated and transferred to the outside and applied?
3. Is it externally accessible in the firm's organisational memory (as detached from the individual)? (Amman, 2010).

Bratianu (2009) and Leon and Atanasiu (2010) note that some knowledge resources are concrete, while others are intangible. For instance, people as human capital, infrastructure, and manuals are concrete; whilst individual or organisational capabilities, insight, relationships, know-how, and related issues are intangible.

Koskinen and Pihlanto (2008) place importance on the distinction between explicit knowledge and tacit knowledge. Madhoushi and Sadati (2010) agree and assert that both tacit and explicit forms of knowledge are accepted as significant sources of competitive advantage (and value creation), and thus are crucial ingredients for dynamic core competencies development. In general, explicit

knowledge is regarded as impartial, standing above and separate from individual and social value systems. Additionally, it is seen as something that could be codified in a tangible format. Tacit knowledge represents knowledge that individuals possess, but are not always able to be express.

According to Nonaka and Takeuchi (1995), explicit knowledge can be expressed in formal language as the 'know-what'; it is documented and public, has structured fixed-content and is externalized and conscious. Nonaka and Takeuchi (1995) state that explicit knowledge is codified in a formal way that can be captured and shared through information technology, and can thus be easily transferred from one medium to another. Alavi and Leidner (2001) agree that explicit knowledge is articulated, codified, and communicated via natural or symbolic forms of language. Together with Nissen et al., (2000), they assert that it is knowledge that can be captured and processed, transmitted and stored. This is comparatively easily by means of information technology.

Hislop (2009), argues that the chief drawback of tacit knowledge is that it is personal and difficult, if not impossible, to disembody and codify. Tacit knowledge illustrates the direct consequence of the interaction between the individual and his/her external environment. It is deeply ingrained in actions, ideas, experiences, values, and involvement, within a particular context (Alavi and Leidner, 2001, (Nonaka and Takeuchi, 1995). As such, it is difficult to share and to formalise, codify, express, or communicate tacit knowledge to other persons. Essentially, tacit knowledge should not be considered autonomously from explicit knowledge, as there is indeed a tacit aspect/element to knowledge in all of its forms (Polanyi, 1996).

2.3 Empirical studies on BSC

A considerable number of empirical studies have been conducted that evaluate BSC in different firms and countries. The result of these studies shows that the impact of BSC on business performance or strategy is mixed. Some studies show that BSC has a positive influence on business functions, while other studies show that BSC deteriorates business performance. Other studies fail to reach conclusions for or against BSC. For a summary of major claims and counter-claims are discussed.

2.3.1 Successful implementation

Kaplan and Norton (1996a, 1996b, and 1994) show some successful BSC achievements. Kaplan and Norton (1996a, 1996b) carried out several studies in many different industries including banking and insurance industries. They show that BSC helps to link the strategy of business units to the entire strategy of a company and helps companies successfully translate their strategies into actions. They also present some evidence on how companies balance financial and non-financial perspectives, internal and external needs, and short-term and long-term objectives. They demonstrate that in the success stories, organisations successfully communicated BSC with the lower management levels, and they claim that BSC has a great impact when deployed to drive organisational change (Kaplan and Norton, 1996). The cause and effect relationship is confirmed as a crucial dynamic system in applying BSC. The companies correctly applying the cause and effect relationship were more likely to achieve the strategy.

Kaplan and Norton (2001a) showed that BSC improved the strategic performance of many organisations. One of the cases presented describes how BSC provided the ability to communicate the strategy to all members of the organisation. It also enabled the organisation to obtain valuable feedback and ideas from employees

closest to customers. The feedback was expressed as some of the key benefits obtained from BSC. Other cases show that fundamental advantages come from the ability to link BSC measures for each employee to an internal share price. This dramatically improved productivity as it meant that each individual reconsidered his/her role within the organisation and concentrated on areas in which he/she could add value to the business. However, the motivation for this change of behaviour was also reinforced by the fact that each employee owned company shares and could win or lose according to overall company performance, as perceived internally. Overall, the success of BSC was attributed to effective communication. The studies demonstrated that BSC concealed a potential for communication and, as a holistic system, it could encompass all stakeholders of the business.

Apart from those studies conducted by Kaplan and Norton (1996), other studies have confirmed the previous arguments. In particular, Gumbus and Lussier (2006) examined the performance of BSC in small to medium-sized enterprises, for example, Hyde Park Electronics, Future Industries, and Southern Gardens Citrus. They found that these companies successfully achieved their objectives by aligning their strategies with the operations. A similar finding was reported by Gumbus and Lyons (2002) from the Philips Electronics company. They found that BSC helped the company focus on critical factors for their business success. Managers in Philips Electronics Company successfully aligned several indicators from markets, operations, and laboratories to their strategy. Craig et al. (2002) showed that BSC helps top management set their strategies, communicate those strategies to the rest of the organization, and evaluate the organisation's performance toward accomplishing their strategic objectives.

Berkman (2002) examines BSC in MOBIL OIL (now Exxon Mobil) and Hilton Hotel. The results showed that BSC helps companies in achieving strategic goals. In the

case of Exxon Mobil, each individual of the organisation worked off a personal scorecard, striving to achieve personal objectives based on measurements directly linked to the corporate strategy. The availability of information technology helps promote alignment and eliminate projects that contribute little or no strategic value. Furthermore, BSC can help information technology by providing strategic guidelines. In the case of Hilton Hotel, the implementation of BSC proves that an organisation can benefit from BSC. The results also show that in Hilton Hotel, BSC maximises revenue, improves guest satisfaction, and operational effectiveness, and fosters internal learning and growth.

Hoque and James (2000) investigated the relationship between firm size, product life-cycle stage, market position, BSC usage, and organisational performance. They found that larger firms benefited more from applying BSC. Their study also suggested that greater BSC usage is associated with improved performance. They argue that BSC places an influential and widely accepted model for performance management and that the implementation of BSC leads to major improvement and sustainable performance.

Chi and Hung (2011) apply quasi-experimental and longitudinal design to gain a better control over the internal validity of research, and applied experiments on several companies in Taiwan. They use control sample methodology to control other factors than BSC effects. The results show that the control sample, which did not implement BSC, experienced lower performance compared with companies that did implement BSC. The findings also suggest that companies that had implemented BSC tended to accomplish their goals faster than the other companies. The results establish that the implementation of BSC management can effectively improve accomplishment of strategic goals and performance.

Chia and Hoon (2002) examined the procedures of pre- and post-BSC implementation in several companies in Singapore and showed that BSC is successfully implemented. BSC implementation contributed to the clarification of company vision and preparation for the intended strategy in practice. Hoque and James (2000) examined the implementation of BSC in 66 Australian manufacturing companies. They showed that companies experience successful implementation of BSC and a significantly improved performance. In addition, the companies that had implemented BSC were associated with a self-reported measure relative to peers within the same industry. The study applied several performance measures including return on investment, sales margins, capacity utilization, customer satisfaction, and quality. They compared these measures with those of other companies with no BSC implementation. Comparison showed that the performances of both companies were significantly positively related to each other. The study attributed the performance improvement to non-financial factors. However, the study did not address the causal relationships between BSC perspectives.

Heinz (2001) applied the case study approach to investigate the implementation of BSC at the strategic business unit of a large automation product supplier's in Switzerland. The study revealed that implementing BSC served Swiss suppliers in different ways, including understanding of performance goals and measures, linking the goals with strategy, planning and budgeting action plans, integrating BSC into the process of company control, and contributing to strategy communication. The study concluded that BSC is a comprehensive management tool.

Olson and Slater (2002) apply a quantitative analysis aided by a questionnaire to examine the understanding and recognition of BSC implementation for more than 200 senior managers in service and manufacturing firms. They report that following implementation of BSC, the main indicators are improved. In particular, a significant

improvement is reported for the perspectives of customer satisfaction, financial performance, learning and growth, and internal business process.

Braam and Nijssen (2004) investigate the impact of BSC implementation performance in 41 B2B (business-to-business) companies in the Netherlands. They use a questionnaire to examine objective performance standards such as Return on Investment and subjective performance standards. The study showed that both objective and subjective performance measurement indicators experienced significant improvement following the implementation of BSC. Davis and Albright (2004) examine the implementation of BSC by using a quasi-experimental design for two different American banking companies. They also used a control group methodology. Thus, for each branch bank implementing BSC (experimental group), they studied a bank not implementing BSC (control group). The results point out that the experimental group report a significant improvement in financial performance compared with their paired controls.

Papalexandris et al. (2004) examined the implementation of BSC on a Greek software company. They found that following the implementation of BSC, a considerable achievement in performance was reported in four BSC perspectives including financial, customer, internal business process, and learning and growth.

More studies are applied in different areas including e-business firms and airline services. These studies report considerable improvement in BSC perspectives (e.g. Bremser and Chung (2005); and Fernandes et al. (2006). Fernandes and Pacheco (2007) examined the implementation of BSC in small and medium size manufacturing organisations and found significant improvement in the four perspectives of BSC. In addition, BSC helps business companies to integrate the lower and management levels

within BSC. Similar results are confirmed in information technology companies (e.g. Bobrek and Sokovic (2006); and Stewart (2007)).

Assiri et al. (2006) carry out an exploratory investigation into BSC implementation based on a holistic view. Their study is a comprehensive analysis of the relevant literature, including a comprehensive analysis of BSC-implementation case studies, and an exploratory global survey of 103 organisations in 25 countries that have already implemented or are in the process of implementing BSC. They suggest a roadmap for a successful implementation of BSC, containing 27 critical success factors. The roadmap breaks down these factors into three levels, namely dominant, main, and supporting factors.

According to Lawrie and Cobbold (2004), the BSC has been used as a measure in multi-national companies based in Europe. A standardized design process and review cycle was implemented and 16 BSCs were introduced across organizations. Measurement systems were designed to inform strategic and operational management processes. BSC was used as a review base for the management systems and to support review discussions that take place between the CEO's team and each unit. Its usage allowed management systems to make decisions based on correct, timely, and relevant data, which reduced the amount of information that was typically needed by the different operating units. It also helped in communicating strategic directions and setting high-level targets through the provision of explicit documentation of management team hypotheses about decisions and choices made.

Chang et al. (2009) examined the implementation of BSC in Case hospital, Taiwan. In order to enhance its competitive position, the Case hospital began to implement BSC in 2001. This was the first hospital to implement BSC in the Taiwanese

healthcare system and one of the few implementations that has been successful. Since the Case hospital was a pioneer in applying BSC to healthcare organizations in Taiwan, it did not have a model to follow. Furthermore, implementation of BSC in the hospital was for the entire entity, not just for a specific department. BSC implementation was initiated and evaluated through four sequential phases, which took eight years to complete. In each phase, careful attention was paid to how BSC can become a valuable tool for executives.

By identifying critical success factors from literature and experience, this study overcame some serious challenges and predicaments faced by BSC implementation. The first success factor was that BSC helps to translate a hospital's mission, vision, core values, and strategy into a comprehensive set of performance measures and strategically aligned initiatives. Second, the implementation of BSC involves all levels of the organization and can bring different departments together to meet hospital-level strategic priorities and performance targets. Third, it demonstrates how to align Strategic Business Unit and the Short Stay Unit among the whole hospital.

In 2004, Afghanistan pioneered a BSC performance system to manage the delivery of primary health care services. Following on from this, in 2004, Anbrasi Edward initiated the examination of trends of 29 key performance indicators over a 5-year period (between 2004 and 2008). Findings suggested that BSC was successfully used to improve health system capacity and service delivery through performance benchmarking over the 5-year study period. Importantly, the use of the BSC helped show the effects of investments, facilitate policy change, and create a more evidence-based decision-making culture in Afghanistan's primary health care system. However, the researchers warn that the continuing success of the BSC in Afghanistan will depend

on its ability to accommodate changes in the health system's policy. Furthermore, reconfigurations of the scorecard are needed to include measures such as mortality rates that determine the overall effectiveness and efficiency of the health system. More generally, the researchers conclude that the BSC offers a promising measure of health system performance that could be used to examine the effectiveness of health care strategies and innovations in other fragile and developing countries.

Chow et al., (1998), found that high-level health care administrators reported BSC as an effective and beneficial tool to the organization. According to Curtright et al., (2000), Mayo Clinic, USA, uses BSC as a senior management tool, since it provides a view of the organization's performance regarding the meeting of quality, operational, and financial goals. According to Yap et al., (2005), larger hospitals were more likely to use a system-level scorecard based on BSC, compared with small hospitals and teaching hospitals. Most hospitals used at least one indicator from the system-level scorecard within their own scorecard. BSC and related scorecards are needed for data collection and analysis. The BSC model can be modified to meet the needs of many different hospitals.

The above discussion points to the fact that the BSC may be an effective way to improve organisational performance in a variety of ways. Several features of the BSC tool can be put forward to support this assertion. First, it provides relevant, balanced, and concise information to managers, thereby reducing the time needed for processing information and increasing the time available for decision-making. Second, it facilitates overall management of the value chain and the integration of various functions and processes. By clearly highlighting the critical variables on which the whole organisation should focus, it facilitates the delegation of authority and therefore empowers people

and units. Third, BSC helps companies to integrate the lower management levels within BSC. Many empirical studies confirm that BSC enables the lower management level to contribute to the decision making processes and as a result participate in setting the strategic map. Finally, empirical studies show that both objective and subjective performance measurement indicators are significantly following the successful implementation of BSC.

2.3.2 Unsuccessful implementation

Another strand of literature suggests that BSC is sometimes implemented unsuccessfully. Schneiderman (1999b), Lingle and Schiemann (1996), Malina and Selto (2001), Venkatraman and Gering (2000), and Norreklit (2000) claim that BSC has not been a purely successful story. According to these researchers and despite its popularity, there have been as many unsuccessful implementations as successful ones. These include cases where a particular measure produced extreme activity, where the measures were covered and accepted but never implemented or simply never caught on.

Olve et al. (2004) suggest that failure of BSC implementation is due to the failure of knowledge sharing, which allows learning from other units' goals and targets. They also suggest that in order to implement successful BSC, companies should include the following amendments: make the strategy explicit, choose the measures; define and refine; and deal with people. Making the strategy explicit means that in producing a BSC, companies should understand the strategic requirements for organisational success. This is within the top management levels; and once a strategy is defined, communicated and understood, the process of choosing the relative measures can begin. Otherwise, the organization would spend a lot of time discussing the right measures.

In most organizations, the process of defining the strategy begins with an understanding of the financial implications of where the company wants to be. Olve et

al. (2004) consider that the term measures 'define and refine' means that once the measures are defined, they have to be implemented. Then, systems and procedures need to be set up to track and report on the measures regularly. This typically involves developing information technology programming. To do this, one must understand the source of data and how it will be processed to produce a scorecard as close as possible to the one specified. In addition, BSC could be an effective tool that leads to strategic alignment in the presence of effective communication.

McCunn (1998) explains that nearly 70% of BSC implementation projects suffer from major failure. This failure had been attributed to many factors including top-down control; the shortage of BSC understanding before its implementation; lack of coordination; lack of middle management involvement; and lack of effectively translated divisional and functional scorecards linked to incentive programmes. The result also suggests that to secure the benefits of BSC, companies should have top-management commitment, clear vision, and an understandable link with the objectives. McCunn (1998) and Bourne (2002) also found that culture is beneficial to successful implementation of BSC. Similar findings and suggestions are supported by Decoene and Bruggeman (2006).

Otley (1999) points out that BSC does not provide a complete solution to all managerial aspects. In addition, BSC does not help the company to select correct measures (Neely et al., 1996), and there is no mechanism for specifying the objectives that should be met (Ghalayini and Noble, 1996). Performance measurement tool need to be integrated into business management (Lingle and Schiemann, 1996).

Schneiderman (1999b) suggests some factors contributing to the failure of many BSC implementations: some BSC perspectives (i.e. non-financial) are incorrectly identified as the primary drivers of future stakeholder satisfaction; the metrics of each

perspective are poorly defined; developing goals are not linked to the stakeholder's requirements; there is no deployment system that breaks high-level goals down to the lower levels where actual improvement activities reside; the financial results are not linked quantitatively with expected non-financial results.

Olve et al. (2004) consider that people's understanding and acceptance of the measures are crucial in implementing BSC. Implementing BSC is intended to change people's behaviour. This is the most important and challenging step in the implementation process. Olve et al. (2004) identify four steps to overcome this challenge. First, managers should consider the needs of their employees, and in turn BSC must be accepted. It is generally accepted that managers will not accept a change if they do not have a chance to influence it. Furthermore, the organization's input must be respected and overall measurement needs must be balanced with the needs of a specific department. In the second step, it must be ensured that performance measures do not confuse people. Olve et al. (2004) show some evidence that many BSC measures are confusing and contradictory. There are often too many measures and they are not consistent. Managers may not know how to prioritise the measures or even what they mean. Inconsistent measures produce unpredictable behaviour. Third, performance measures should be linked to the incentive system, with appropriate behaviour rewarded accordingly. In the final step, combinations of different tasks are required to change the performance measurement system where each task requires the participation of a different interest group. Top management levels identify the strategy; the task team makes the measures robust; the professionals play an essential role in implementing the measures; and the organisation as a whole is involved in obtaining the buy-in.

Pforsich (2005) and Dent (2005) find evidence consistent with the arguments of Olve et al. (2004). They attribute the failure of BSC to inefficient implementation by the

management, delay in feedback, or over-emphasis on financial measures. Similarly, Ho and Mckay (2002) investigated the implementation of BSC in two different companies. Of the two, one of the companies successfully implemented BSC, while the other company discarded it, due to ineffective implementation. Ho and McKay (2002) attributed the failure in BSC to delayed feedback and an uncontrollable number of measures. They also found that the top management level had not deployed BSC to the business unit. In light of this, Ho and Mckay (2002) recommend that for successful implementation of BSC, the number and type of measures selected must be well-defined in advance. A controllable number of measures should also be applied to prevent BSC from being overly time-consuming, leading to collapse.

Hackett (2004) examined the efficiency of BSC and found that the benefits of effective BSC were not realized for approximately 80% of the companies examined. The main reasons for this under-achievement included too many metrics and the overwhelming of BSC with historical financial data. According to the Hackett Group, companies apply an average of 132 measures to senior management each month. In addition, half of the metrics depend upon internal financial information, which places far too much weight on historical performance and not enough emphasis on forward-looking measures, such as external financial and operating performance. Moreover, they found that executives consider that BSC is an expensive plan, and a useless substitute for traditional paper reports. The study also showed that senior managers do not engage in the main roles of BSC and therefore pay little attention to it. Malina and Selto (2001) also examined BSC and found that effective communication neither associates with nor causes strategic alignment, effective motivation, or positive outcomes. Bourne (2002) affirms that BSC is not necessarily achieved even when the right strategy is in place. They claim that employees and stakeholders are not involved the business strategy. In

addition, he contends that companies fail to communicate BSC with external stakeholders and BSC does not reflect the local community's needs and social issues.

In contrast with Malina and Selto (2001), Atkinson (2006) argues that the key problems associated with the implementation of BSC are due to the shortage of communication. In addition, they suggest that middle managers are not integrated in the strategic system. Atkinson et al. (1997), amongst others, consider that BSC does not properly agree with the stakeholder approach to performance management. BSC is also suggested to ineffectively address issues relating to employees, supplier contributions, and the local community and be biased towards shareholders.

According to Gering and Mntambo (2002), BSC can resemble a series of four independent and uncoordinated perspectives. Kaplan and Norton (1996) find evidence that sometimes the learning and growth perspective of BSC has been ignored as a strategic aspect. To overcome the above issues, Kaplan and Norton (1996) suggest that the supplier should be involved in planning the internal process perspective. In terms of local community and social responsibility, Kaplan and Norton (1996) suggest that companies should link their strategy to what the external stakeholders need. This is particularly true in the case of NPOs and PSOs.

In another investigation of BSC, Lipe and Salterio (2000) applied an experimental study to examine judgmental effects of common and unique measures on superiors' evaluation of business unit managers' performance. The study documents that managers and employees concentrate on the common measures rather than the unique measures. The latter is totally ignored by all business units. This finding was attributed to cognitive behaviour, which suggests that managers and employees do not easily understand the unique measures in the absence of well-defined communication. They

claim that since managers and business units are mainly dependent on common measures, companies may face challenges in achieving their strategy.

While some of the examined common measures are linked to a business unit's strategic objectives, some are not. Banker et al. (2004) carried out similar studies to Lipe and Salterio (2000) and confirmed their findings. In particular, they found that the strategic business unit (SBU) merely depends on common measures. However, when participants are provided with additional information on SBU strategies, strategically linked measures have a significantly greater impact on evaluations than non-linked measures. In this case, strategically linked unique measures also have a significantly greater impact on evaluations than common non-linked measures. Taken together the findings of Lipe and Salterio (2000) and Banker et al. (2004), it is found that when managers have an understanding of SBU strategy, linked measures (unique) dominate common measures in decision making; otherwise, common measures dominate linked measures.

Marr and Adams (2004) report that BSC fails to acknowledge the large body of literature on intangible assets and, therefore, produces an inconsistent, incomplete, and potentially very confusing classification of them. In addition, they claim that there are costs associated with applying BSC that are greater than their benefits. Furthermore, they claim that BSC is static in nature. Neely (2003) affirms that the causal relationship in BSC does not work as Kaplan and Norton expected. Norreklit (2000), De Waal (2003), and Hendricks et al. (2005) report that the most important criticism of BSC is that there is no evidence that the implementation of BSC improves business performance.

Lingle and Schiemann (1996) and Malina and Selto (2001) argue that the criticism of BSC arises because Kaplan and Norton failed to include any citation of

their initial papers on the topic. Some of this criticism concentrates on the technical and cultural issues of BSC. Norreklit (2000) and Nørreklit (2003) reported that the cause-and-effect relationship in BSC is generally weak between the four perspectives. In particular, Nørreklit (2000) shows evidence that there is no cause-and-effect relationship between the suggested perspectives of BSC with the business strategy. However, they found considerable co-variation between customer loyalty and financial performance. For example, improvement in customer loyalty leads to a long-term financial performance. The lack of a cause-and-effect relationship between the other perspectives was suggested as due to the invalid assumptions in a feed-forward control system. These invalid assumptions cause companies to anticipate performance indicators, which are actually faulty, resulting in dysfunctional organisational behaviour and sub-optimised performance. Nørreklit (2000) argues that the weak definition of cause-and-effect undermines BSC as a whole. Nørreklit (2000) further criticizes the fact that internal and external stakeholders are ignored during the implementation of BSC in some companies. Mooraj et al. (1999) argue that BSC cannot work without considering the current and strategic importance of the stakeholders, namely suppliers. Nørreklit (2000) criticises the implementation of BSC for being too top-down. A top-down driven implementation generally excludes the involvement of business units as well as lower management levels. Mooraj et al. (1999) also suggest that organisations should apply a combination of top-down and bottom-up management in order successfully implement BSC and ensure full involvement of employees. Nørreklit (2000) fully agrees with the suggestions of Mooraj et al. (1999) that bottom-line levels should contribute to BSC strategy, otherwise BSC will be considered as a list of metrics not as a strategic management tool.

In addition to the fact that BSC failure is due to the top-down management policy, some studies conclude that unsuccessful implementation of BSC is due to the fact that top managers are too busy dealing with short-term decisions and spending little time developing BSC. The managers also face challenges in defining and measuring outcome and performance drivers of BSC. In addition, companies experience a shortage of skilled strategic managers. Furthermore, the business unit and personal objectives are inadequately linked with BSC strategy. The cause and effect relationship is often not clear and some cultures inhibit the benefits of BSC. **Table 2.3** summarises the main reasons for failures of BSC. as suggested by Bourne et al. (2002).

Table 2. 3 Summarises the main reasons for failure of BSC

Main reasons for failure of BSC	Authors
Contextual issues:	
The need for a highly developed information system. Time and expense required. Lack of leadership and resistance to change. The need for substantial changes in culture within the organization	Bierbusse and Siesfeld (1997); McCunn (1998); Hacker and Brotherton (1998).
Processing issues:	
Vision and strategy were not actionable. Difficulties in evaluating the relative importance of measures and the problems of identifying true drivers. Strategy was not linked to resource allocation. Goals were negotiated rather than based on stakeholder requirements.	Kaplan and Norton (1996); Bierbusse and Siesfeld (1997); Meekings (1995); Schneiderman (1999a); McCunn (1998); Chavan (2009).
Content issues:	
Strategy was not linked to department, team, and individual goals. Large number of measures diluted the overall impact. Metrics were too poorly defined. The need to quantify results in areas that are more qualitative in nature.	Kaplan and Norton (1996); Bierbusse and Siesfeld (1997); Schneiderman (1999a).

Source: Bourne et al. (2002)

2.4 BSC in healthcare organisations

Many organisations including hospitals and clinics in the healthcare organisation apply BSC. Implementing BSC in the healthcare organisation is a challenge, since most of them are not-for-profit firms. Regardless of this issue, a considerable number of

healthcare organisations have applied BSC successfully. Zemelman et al. (2003) cite some examples of these companies. They confirm that healthcare organisations show a considerable experience in implementing BSC. They also show that healthcare organisations including hospital systems; university departments; long term care psychiatric centres; insurance companies; pharmaceutical companies; national healthcare organisations, the federal government; and local governments, successfully apply BSC.

2.4.1 The modifications of BSC

The main issue when applying BSC in NPOs and SPOs is how to rearrange and amend the relationship between BSC perspectives and the organisation's strategy. Chow et al. (1998) show that the main error of healthcare organisations is that they focus their attention on how BSC is designed rather than how it is applied. Kaplan and Norton (1992) consider that companies should be flexible about following the four main perspectives of BSC and that modification is acceptable to meet the company's strategic objectives. Zelman et al. (2003) summarise some examples of organisations that modify the original BSC format. For example, in some manufacturing and service industries a "human capital perspective" is generated to add additional weight to the model. Zelman et al. (1999) identify two main challenges that healthcare organisations have to face when implementing BSC. First, in BSC, it is expected that an overall vision can be defined and that the business units within the organisation are coordinated to achieve the vision. In healthcare, the planning and management system is inflexible and is not considered important by the top management level. Therefore, the vision and mission may be weakly correlated with business activities. This weak correlation may inhibit the success of BSC since the vision is not communicated with all business management levels. In support of this view, Castaneda-Mendez et al., (1998); Sahney, (1998); and

Griffith et al., (2000) show some evidence that BSC performance measurements and perspectives are only weakly connected to the business strategy.

The second problem facing healthcare organisations is the priority order of the BSC perspectives. For instance, at Duke University Hospital, the customer perspective is given the highest priority of all the four perspectives, whereas normally it would be finance. In addition, at the Yale University School of Medicine, BSC perspectives have been modified to value the customer perspective above other perspectives.

Zelman et al. (2003) review the use of the BSC in healthcare organisations and conclude that the BSC: (1) is relevant to healthcare, but modification to reflect industry and organizational realities is necessary⁴; (2) is applied by a wide range of healthcare institutions; (3) is used as a strategic management tool; (4) is modified to include the quality of care perspective, outcomes perspective, and access perspective; and (5) is designed to increase the need for valid, comprehensive, and timely information.

Potthoff et al (1999) assert that healthcare organizations create a BSC including “development and community focus perspectives; “human resources perspectives,” and “quality of care and services perspectives”. Mayo Clinic-USA, modified BSC by adding the perspective of “mutual respect and diversity and social commitment” (Cartwright, 1999). The hospital of Santiago also includes the quality of care perspectives and outcomes perspectives as crucial perspectives to be used in healthcare organisations.

In a similar vein, Voelker et al. (2001), Pink et al. (2001), and Inamdar et al. (2000) suggest that many versions of BSC meet the demand of hospitals. They suggest adding the medical care perspective as an additional perspective to BSC. Studies such as those conducted by Kershaw and Kershaw (2001); Gumbus et al. (2003); Wells and

⁴ Zelman et al. (2003) add some modifications to BSC to match the requirement of the healthcare organizations. In particular, they consider the importance of patient satisfaction and the internal process as main functions of the hospitals.

Weiner (2005) and Woodward et al. (2004) recommend that the measures of BSC be updated to meet the unique nature of hospitals.

Castañeda-Méndez et al. (1998) and Sahney (1998) suggest that BSC measurements should be applied to produce a better system of values for patients, employees, and the business strategy. Cleverly and Cleverly (2005) suggest that the financial measures should include financial health, capital, human resources, and efficiency. Voelker et al. (2001), Inamdar et al. (2000), and Kaplan and Norton (2001a) show that in other cases, a community perspective is considered the ultimate purpose of the organisation. Voelker et al. (2001) suggest that some NPOs exclude the financial perspective since financial performance cannot lead to business success.

As is evident, from the above, there has been heated debate on how many and which perspectives and performance measures should be included in BSC. The number of perspectives varies from one organisation to another. Some organisations, such as the National Health Service (NHS) in the UK include three perspectives (Bevan and Hood, 2006; and Patel et al., 2008), and other organisations include as many as six (see Kumar et al., 2005; and Peters et al., 2007). These additional perspectives are new perspectives such as a clinical perspective, a social commitments perspective or an employee perspective (see (Curtright and Stolp-Smith, 2000); (Santiago, 1999); (Kunz et al., 2005); (Schmidt et al., 2006); and (Peters et al., 2007).

Kenton et al. (2006) claim that hospitals face challenges in maintaining the direct cost as part of the financial perspective, as cost has direct implications on patient satisfaction. However, Berger (2004), González et al. (2006), and Colman (2006) find that some healthcare organisations show evidence that BSC helps reduce the direct costs.

In the customer perspective, Kershaw and Kershaw (2001) and Kaplan and Norton (2001a) suggest that BSC should include the patient service, to develop a positive perception of care delivery. This customer perspective should also include patient satisfaction, patient involvement, waiting lists, and waiting time. It should also include a quick response for patient feedback and the ability of the organization to quickly correct any service problems.

In the internal process perspective, Kershaw and Kershaw (2001) suggest that healthcare organisations should include service development, service delivery, and service evaluation, as these have the greatest impact on patient satisfaction. The internal process should also include measures that capture time to market, delivery time, cost, and process quality. The internal process may result in well-functioning processes (i.e. staffing; efficiency; facility utilization; equity of access; and mortality rates).

In the learning and growth perspective, Kershaw and Kershaw (2001) and Gumbus et al. (2003) suggest that key areas such as the skill levels of employees, availability of training, and employee satisfaction, should be included.

2.4.2 The utilization of BSC in healthcare organisations

Kenton et al. (2006) suggest three principles for successful implementation of BSC in hospitals. These are, firstly that major health goals for the hospital must be established. Secondly, a roadmap for services of major department/services should be established in light of goals and supporting objectives. Finally, series of indicator measures should be developed to reflect the goals of the hospital.

Johanson et al., (2006) claim that some BSC measures accumulate at the clinical level, linking the clinical level to the main vision of the healthcare organisation. This suggests that the organisations should widen the BSC measures to reflect the

complexity of healthcare activities and not just the clinical dimension. Johanson et al., (2006) argue that hospitals can benefit from BSC by answering the following questions about performance: “Has financial performance improved?”; “Have hospitals improved key services and processes so that we can deliver more value to patients?”; “Do patients recognize that we are delivering more value?”; and “Are hospitals maintaining the ability to learn and improve?”

Curtright and Stolp-Smith (2000) found that implementation of BSC resulted in an improvement in performance measurements among administrators and physicians. Junttila et al. (2007) explain how BSC resulted in visible improvements that were understood by nurses.

Inamdar et al. (2002) and Kenton et al. (2006) cite the main benefits of applying BSC in healthcare organisations. For one, BSC aligns the organisation around a more market-oriented and customer-focused strategy. BSC also helps organisations to monitor and assesses the implementation of their strategy, and produces internal and external communication tools and collaboration mechanisms. In addition, BSC assigns accountability for performance at all levels of hospital administration. Moreover, BSC provides continual feedback on the strategy and promotes adjustments to changing market and regulatory factors.

Inamdar et al. (2002) carried out an empirical study on the effectiveness of BSC in healthcare organisations. They asked questions about the challenges and barriers in during the BSC implementation process. They also examined the effectiveness effects of BSC and its role in relation to vision, mission, and strategy. They concluded that BSC was applied successfully as a performance management tool, and is very useful to healthcare organisations, allowing them to improve their competitive environment positioning, financial performance, and customer satisfaction.

Abernethy (2007) argues that BSC can be effectively applied to enhance healthcare management and quality development by including both clinical indicators relevant to healthcare professionals as well as efficiency concerns of administrators. Zelman et al. (1999) found that in healthcare organisations, the annual strategy meetings, the continuous meetings of the management groups, and the interdependence between the different wards are strengthened when BSC is applied.

Aidemark and Funck (2009) carried out an intensive case study on the effectiveness of BSC on quality management in a clinical environment. 'Within the framework of BSC at the clinical level, every ward developed its own scorecard. The management of the clinic assigned certain measures that were to be included in all scorecards and these measures were presented at both ward and clinical levels. The BSC applied contained a number of further measurements that could be made on the basis of existing data. For instance, extra measures were added in the financial, the patient-administrative and the personnel-administrative systems. Each ward supplemented its own BSC with measures considered important for the control of operations and development therein. Here, the BSC was re-designed continuously, giving great freedom and flexibility. Measures of behaviour and outcomes could be excluded and new measures included if the ward management was uncertain about how tasks were carried out, or as a result of performance on the ward. The wards also had the opportunity to study each other's measures.

In the study of Aidemark and Funck (2009), BSC measurements were used in the clinical wards at Hannover Medical School for ten years. This study answers question on why the eagerness to measure has not abated at the ward level. The answer may be summarised and categorised into distinctive features: (1) decentralisation of measures development within the internal process perspective, (2) management interest,

demand and support, (3) the flexibility of design and use of BSC. Over time, the use of measurements led to a 'change of culture'. Measurement became a self-evident way of approaching unanswered questions about operation processes and quality development. The interviews undertaken in the case study gave this unanimous picture. Measurements of outcomes and behaviour fitted very well into the healthcare organisation's aim for quality development.

2.5 Summary and Conclusion

Kaplan and Norton first suggested the BSC system in 1992 for the purpose of achieving strategic business goals BSC was designed to measure company performance from four major perspectives: financial, customer, internal processes, and learning and growth. In particular, BSC was developed to provide the knowledge, skills, and systems that employees need (Learning and Growth) to innovate and to build the right strategic capabilities and efficiencies (the Internal Process) that deliver specific value to the market (the customer), which will eventually lead to higher shareholder value (the financial) (Kaplan and Norton 2000).

The main idea of Kaplan and Norton is that these four perspectives represent a balanced view of any organisation and that by creating measures under each of these headings, no important area would be missed. BSC is a system in which the procedures of applying it are a critical part of it. Some measures may give a real picture about the performance of the company, while others are misleading. When BSC fails, it is usually due to the exclusion of the contribution from different levels of business units and departments. In addition, failure can be due to shortage of internal and external communication. Thus, the success of BSC relies on a cascade of information and the alignment all business units and management levels. The success of BSC also depends

on how the measures are agreed, the way they are implemented and how they are acted upon. Therefore, the process of designing BSC is crucial to its success.

Kaplan and Norton (1992) explain how the business unit creates shareholder value through enhanced customer relationships. These processes are continually improved by aligning people, management levels, and culture. When BSC is designed at the highest level of management, it passes it down to the lower levels and is broken down into more specific objectives and targets linked to the main scorecard.

The BSC provides executives with a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures. Many companies have adopted mission statements to communicate fundamental values and beliefs to all employees. The mission statement addresses core beliefs and identifies target markets and core products. The measures of BSC should be used to achieve the mission statements and serve the following purposes: (1) to articulate the strategy of a business; (2) to communicate the strategy of a business; and (3) to help align individual, organizational, and cross-department initiatives to achieve common goal. Therefore, while using BSC as a controlling system, it should be used as a communication, informing, and a learning system as well.

The four perspectives of BSC help to balance short-term and long-term objectives; desired outcomes and performance drivers of those outcomes; while the multiplicity of measures in BSC may seem confusing, properly constructed scorecards contain a unity of purpose, since all the measures are directed toward achieving an integrated strategy (Kaplan and Norton, 1996). Since BSC aims at communicating the strategy to the entire company, KM work may have a better chance to succeed. All employees of a company using this tool should know where they are heading. If this is

achieved, they will then have the possibility to judge their own actions in the light of the company's complete strategy. BSC is not only a measurement system but also a strategic tool, which according to Kaplan and Norton (2001b), becomes essential for generating a strategy-focused organization.

Many organisations, including healthcare organisations (e.g. hospitals and clinics) apply BSC. Implementation of BSC in healthcare organisations is a challenging work, since most of them are not-for-profit firms and traditional BSC is finance-focused. To overcome this, Kaplan and Norton (1996) assume that the rationale for not-for-profit organisations is to provide services to the citizens, and BSC can be made to fit this nature.

Despite these drawbacks, organisations in the healthcare sector have applied BSC successfully. Zemelman et al. (2003) cite some examples of such companies. They confirm that healthcare organisations show considerable experience in implementing BSC. Zemelman and colleagues (2003) also summarise the ways in which some organisations modify the original format of BSC, as suggested by Kaplan and Norton. In particular, a number of healthcare organisations, have found that modifying the original format of BSC is an important part of the implementation process. Potthoff et al (1999) provide an example of a long-term care organization that creates a BSC including “development and community focus perspectives; “human resources perspectives,” and “quality of care” and “services perspectives”.

Chapter 3: The Conceptual Framework

3.1 Introduction

This chapter develops the conceptual framework based on the preceding literature review. It suggests that understanding of BSC perspectives is determined by several factors, including the version/generation applied, the level of communication, the weighting, the management information system, the organisational culture and the linkage between perspectives and the business strategy. The conceptual framework considers that efficient application of these factors may improve business performance, and in turn, the business strategy is achieved. Kaplan and Norton (2001a) explain that for organisations to achieve their business strategy, whether they are a manufacturer or providing service, private or public, for profit or not-for-profit, all organisational participants need to be aligned to the strategy. The challenge for organisations is how to enlist the hearts and minds of their employees. According to Huang (2009) the BSC model depends on activities that develop by learning and growth perspective. This perspective captures the ability of employees, information systems, and organisational alignment to manage a business and adapt to change. Process success depends on skilled and motivated employees, as well as accurate and timely information.

The BSC literature suggests that the implementation process should start with education by creating strategy awareness. Then, the understanding of employees should be tested to ensure that they have received the right message. This should involve the use of tools to check that employees' understanding and day-to-day behaviour is conducive to achieving the organisation strategy. Organisations should always know how many of the employees understand the process and how many do not. A precise budget should be set for the employee communication and education process.

Kaplan and Norton (2001b) have reported that the more employees understand the strategy, the higher their individual performance is. **Table 3.1** shows the relationship

between employees' understanding and their performance, according to the Kaplan and Norton (2001b) study.

Table 3. 1 Employees' understanding of organisational strategy and their performance

Component	High Performance	Low Performance
Employees have a good understanding of the business strategy	67%	33%
Senior managers use effective communication	26%	0%

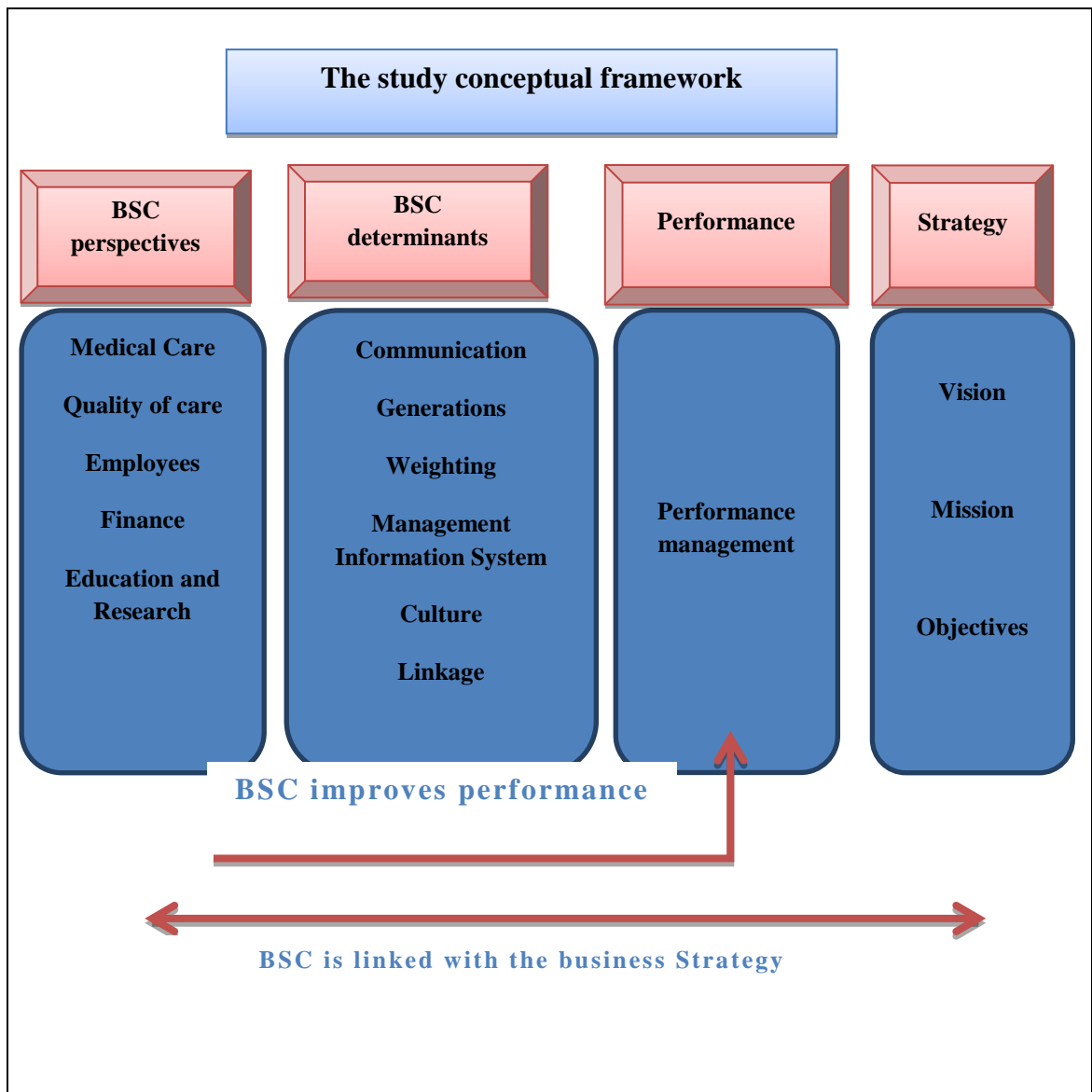
Source: Kaplan and Norton (2001b)

Table 3.1 shows that when employees understand the strategy of their organisation, their performance becomes higher. In the light of the importance of understanding the BSC perspectives, the conceptual framework is discussed, then propositions and hypotheses are derived.

3.2 BSC Conceptual Framework

The researcher designs a conceptual framework as in **figure 3.1** which combines the main elements of BSC implementation. This framework summarises the determinants of BSC understanding. Based on the reviewed literature the understanding of the five perspectives of BSC in the hospitals are determined by many factors including the level of communication; the generation of BSC applied; weighting; management information systems; the culture; and the linkage of perspectives. Efficient and effective implementation of these perspectives may improve the business performance, and meet the business strategy as a result.

Figure 3.1 The BSC Conceptual Framework



Motivated by the conceptual framework, the researcher drives four propositions: **The first proposition** suggests that the BSC as strategic management tool produces continuous learning environment that enable managers and employees adequately understand the BSC perspectives and link it with the business strategy. **The second proposition** predicts that the implementation of the BSC may improve the business performance. In the light of the previous proposition, **the third proposition** concludes that the improvement in the business performance may help to achieve the business strategy which includes objectives, vision and mission. **The fourth proposition**

suggests that the successful implementation of the BSC is determined by the following factors:

- A- The Internal and External Communications
- B- The Weighting
- C- The level of Management Information System
- D- The organisational Culture
- E- Understanding the Linkage

The researcher also drives the hypotheses in the same way as in the **Table 1.1**.

3.3 Understanding BSC

The BSC has been designed to translate management's strategy into performance measures that employees can understand and implement. Kaplan and Norton (2001b) suggest the most important areas that employees should know about the BSC. They assert that managers should clearly define the measures that will be used to guide and monitor the strategy on the scorecards and how these measures will be calculated. Employees must understand the measures clearly for their decisions and actions to affect the strategy in the intended way. Employees should understand the interrelations between these measures. Employees should also understand how their local performance objectives contribute to the accomplishment of business unit and corporate objectives. Finally, employees' action should be linked with an incentive plan. According to Kaplan and Norton (2001b), incentive compensation is a powerful tool to gain employees' attention to company and business unit objectives.

Lawrie and Cobbold (2004) explain why BSC is assumed to improve the level of understanding in different management levels. BSC is a mixture of financial and non-financial perspectives. Traditional measures of business success rely heavily on the

financial perspective, which is short-lived in nature and explains outcomes retrospectively. Combining financial and non-financial perspectives, as in the BSC, aims to understand past performance and future perceptions, since non-financial measures are more related to the future.

In each perspective, strategy/vision is translated into specific objectives, goals and measures. The objectives and goals along with the designed performance measures are communicated throughout the organisation. Targets are planned and aligned with strategic initiatives and strategic feedback and learning is enhanced. According to Lawrie and Cobbold (2004), the non-financial measures are intangible and more strategic. De Haas and Kleingeld (1999) assume that the incorporation of both financial and non-financial makes the performance measurement system a feed-forward control system. They also argue that development of the non-financial perspective is a key aspect to understanding and implementing the monitoring process that is essential to the organisations. Empirically, Luft and Shields (2001) examined the use of financial and non-financial measures in a decision-making process. They found that participants placed greater weight on current non-financial information when forecasting future financial performance. They attribute this result to non-financial measures being more cognitively valuable (i.e. more meaningful, transparent, and understandable).

Lukka (1998) explains that non-financial measures are developed in local units through experimental learning processes, which are directly related to the activities performed within the units. Consequently, including non-financial measures enables the lower management level to understand their contribution in the strategic map. However, Lukka (1998) claims that non-financial measures are independent from the strategic goals of the whole firm. Herzlinger (1996) suggests that in NPOs, the non-financial perspective includes the quantity and the quality aspects of services. Thus, including

non-financial measures may require more knowledge on how they will link to the strategic map.

The number of measures included in BSC is limited to between 15 and 20 in the first generation and between 20 and 25 in the second and third generations. Research in cognitive psychology, as applied by Lipe and Salterio (2002) shows that people are generally unable to process more than 7 to 9 items of information simultaneously (Baddeley, 1994; Miller, 1994). BSC contains many more measures than this limit, suggesting that managers will find it difficult to utilize the information in BSC. BSC with its overloaded number of performance measures may inhibit the understanding components of BSC. To address this, Kaplan and Norton (1996) encourage the inclusion of only 4 to 7 measures in each category to be tracked closely. This is recommended to avoid excessive costs or resources tied up in the measurement process for collecting and analysing the data, reporting the indicators, and interpreting them so as to decipher signals from noise.

It is important that measures are placed into categories, termed perspectives by Kaplan and Norton. Lipe and Salterio (2002) explain that placing an item in a particular category causes employees to perceive the item in relation to the others in the category. In addition, when information is divided into groups, an assessment can be made of each group, and these assessments can then be combined. The organisation of BSC lends itself quite naturally to this kind of mental approach. Thus, categorising the performance measures into four perspectives may assist managers in understanding the measures based on their category.

Lipe and Salterio (2002) report that when multiple measures within a BSC category (perspective) show consistent performance, managers' evaluation judgments

are reliably different from evaluations made using the same measures without the BSC format. These judgment differences disappear when the measures indicating strong performance are distributed throughout the four BSC perspectives instead of being found in a single one. They find evidence that BSC has predictable and understandable effects on judgment. Furthermore, Lipe and Salterio (2002) argue that categorisation as in BSC can help evaluators to mentally organize a large number of performance measures. BSC divides measures into smaller groups of performance categories, which allows employees to mentally invoke a "divide and conquer" or group-based processing strategy (Lipe and Salterio, 2002). However, Neely (2007) raises a problem connected with the categorisation of measures into perspectives. He claims that if measures are combined subjectively, people will not understand the connection between measured performance and their compensation.

Since each perspective includes measures and goals that are presumably linked to the strategic map, Irala (2007) claims that the format of BSC helps managers understand many of the interrelationships between the four perspectives. Kaplan and Norton (2001a) emphasize that employees' understanding of the strategy is critical to the success of BSC. Riordan et al. (2000) examined this issue in an experiment designed to measure the impact of strategic linkages on managers' use of non-financial and financial performance measures. They found some evidence that managers' understanding enables them to link between non-financial measures and the strategic map.

3.3.1 Determinants of successful implementation of BSC

3.3.1.1 The generations of BSC

The evolution of the BSC took three generations. Malmi (2001) and Lawire and Cobbold (2004) define the first generation of BSC as a performance measurement

system that applies a specific approach to measuring intangibles. Intangibles are identified and gauged by non-financial strategic measures rather than by their financial value. The BSC concept proposes a specific structure for measuring tangibles and intangibles (using the four perspectives).

The first generation mainly focuses on the four perspectives (drivers) of BSC and the indicators belonging to each perspective. According to Speckbacher et al. (2003), the second generation additionally describes strategy by using cause-and-effect relationships. Norreklit (2000) agrees that the cause-and-effect chain is the key component that distinguishes the second generation from other generations of BSC. Hoque and James (2000) claim that the use of a BSC means that organisations put a handful of strategically critical measures together in a single report, in a way that makes cause-and-effect relations transparent.

The third generation of BSC is generally considered a management system rather than a performance management system. Speckbacher et al. (2003) explain that the main goal of the third generation is to implement the organisation's strategy through action plans, and/or target setting and is by linked incentives. In addition, Kaplan and Norton (2001a) claim that the concept of BSC should evolve from an information system to a strategic management system. Hence, a fully developed BSC should not only describe the strategy of the company, as in the second generation, but should also implement the strategy in the company.

3.3.2 The level of communication

Communication is considered a conduit to transfer the culture and knowledge through different management levels. Through communication, the top management should discuss and review the vision and the scorecard component with lower management level. Communication between the hierarchical levels enhances the level

of understanding and generates BSC's learning environment (Kaplan and Norton (1996). Professional and academic business literature indicates that when managers communicate a strong justification for a strategic objective to organisational members, they are implicitly signalling management's commitment to, and strong support for the strategic objective (Kaplan and Wisner, 2009). Hao et al. (2012) claim that based on the cognitive model, levels of understanding vary because of an individual's perception, understanding and thinking about the world. This is affected not only by the individual's past experience, but also by their personal characteristics. As each individual has a different cognitive model, every person has different understanding of external stimulus information and sees the same thing in different ways, or obtains different meanings (Gao and li-Cai, 2008).

According to Malina and Selto (2001), effective organisational communication devices should possess the observable attributes of valid messages and reliable, understandable, trustworthy support of organisational culture and existing or changing knowledge-sharing. Effective communication also includes dialogue and participation; individuals use and rely on communication if processes and messages are perceived as understandable and trustworthy. An effective communication system encourages and enables the sharing of individuals' experiences and collects those shared experiences. This may be best accomplished by applying KM. According to Koskinen and Pihlanto (2008), the KM comprises a range of practices used by organisations to identify, create, represent and share knowledge for reuse, awareness, and learning.

Geuser et al. (2009) claim that organisations using many tools to achieve effective communication are able to better understand the link between measures and the strategic objectives of BSC. Hoffmann (2005) suggests that organisations should use diagrams to link lower-level actions to corporate strategy, since BSC is characterised by

complexity. Diagrams facilitate complexity reduction since they emphasize core relationships (the links), rather than marginal issues (Hoffmann, 2005). Visual representations have been particularly useful in strategy formulation and communication Tan and Platts (2003). Diagrams help to include aspects such as mind mapping and cognitive mapping in the performance model. The availability of cause and effect diagrams (strategy maps) helps employees to comprehend and recall the strategic map of BSC. Table 3.2 summarises the communication media that suggested by Kaplan and Norton (2004b).

Hao et al. (2012) use advocate media communication, such as notifications and staff briefings, to convey strategic objectives to staff. In this context, interpersonal communication refers to information communicated among people (such as training, communication, chat, etc.). Communication media includes quarterly town meetings, brochures, monthly newsletters, education programs, and company intranet. In addition, Wynder (2010) asserts that training increases employees' satisfaction. When employees are more satisfied, they are more likely to stay and hence turnover is reduced. Employees who have worked longer at their jobs are more likely to understand the processes and be able to make suggestions for improvements. How many of those suggestions are implemented, however, will depend on employees' experience (as determined by turnover) and their level of training (Wynder, 2010).

Table 3.2 The communication channels

High –communication ↑	Face-to face communication Hallway communications Small group meetings Video conferencing
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	visual representations
	learning maps
	Intranet BSC
	Telephone conversations
	Pictures
	Diagrams
	Tables
	Voice mail
	E-mail
	Training
	Large group meetings
	Handwritten personal notes
	Advanced copy agendas
	Faxes
	Interoffice memos
	Formal speeches
	Letters
	Newsletters
Low-communication	Reports

Source: Kaplan and Norton (2004b).

3.3.3 Weighting BSC perspectives

Many studies (Banker et al. (2004); Libby et al. (2002); Lipe and Salterio (2000)) examine the differences in weighting between BSC perspectives. In general, it is claimed that the spread of awareness is not equally distributed between financial and non-financial perspectives, or between common and unique measures. Lipe and Salterio

(2000) argue that when a BSC uses both common measures (i.e., measures common across business units) and unique measures (i.e., measures specific to one business unit), evaluators place more weight on common measures, while ignoring unique measures that may also be informative (Lipe and Salterio, 2000). Cardinaels and van Veen-Dirks (2010) find evidence suggesting that managers tend to weight financial measures more heavily than non-financial ones for reasons including outcome effects, outside pressure, and familiarity.

The psychology literature (Hawkins and Hastie (1990); Ghosh and Lusch (2000)) shows that auditors and evaluators are more likely to use financial indicators than non-financial, when assessing a manager's performance. Thus, they give more weight to financial measures, regardless of whether the actions to achieve the results were appropriate (Ittner et al., 2003b).

Empirical research shows that employees are familiar with companies' financial pressures because shareholders are vocal and boards frequently apply pressure on behalf of shareholders (Anthony and Govindarajan, 2001). DeBusk et al. (2003) find evidence suggesting that the composition of measurement depends heavily on strategies of the organization. Bottom-line financial measures such as return on invested capital and net profit are perceived as more important than their non-financial counterparts.

The literature on health studies shows that organisations prioritise the BSC perspectives that best suit their company strategy and goals. Jones et al. (2002) reported that at Duke University Hospital, the customer perspective of BSC was given the highest priority of all the four perspectives. In other cases (Voelker et al. (2001); Inamdar et al. (2000); Urrutia and Eriksen (2006); Kaplan (2001)), a community or a visionary perspective has been considered to be the ultimate purpose of the organisations. Voelker et al. (2001) suggest that in some NPOs, the financial

perspective can be excluded from BSC, since financial performance cannot demonstrate success. Heberer (1998) show that BSC perspectives present different weights.

3.3.4 Management information systems

Kaplan and Norton (2004a) explain that management information enables an information technology portfolio of infrastructure to support internal processes. The infrastructure includes two categories; transaction processing applications and analytic applications. Transaction processing applications automate the basic repetitive transactions of the enterprise. Analytic applications promote analysis, interpretation, and sharing of information and knowledge. Kaplan and Norton (2004a) suggest that executives must understand how to plan, set priorities, and manage an information portfolio that supports their organisation's strategy.

Janhangiri and Dashti (2012) define how BSC implement management information system. At the organisational level (top level), measures must be focused on the duty and general goals of the organisation. At the business level (operational level), measures should stabilize processes and programs of the information system and send more detailed reports than those used at the organisational level, so they can deliver more information to the beneficiaries. Measures at the business level must be focused on operational improvement. At the project level, measures should be based on activity and duty information that are used for executive and applied decisions. Andersson et al. (2003) claim that the importance of a management information system is to spread the knowledge of BSC, since all management levels contribute in the process. Proti (2002) and Martinsons (1999) summarise the steps and the criteria for BSC using the management information system.

Table 3. 3 Ways to spread awareness of the management information system (Proti,2002, Martinsons, 1999)

Steps	Objectives
Collect and analyse key data	Common understanding of the strategy and the cause and effect relationships. Clear and specific objectives and goals. Clear performance measurement. Well-defined and updated potential measures related to the four BSC perspectives.
Review, and clarify organisation’s objectives and functions from each of the four perspectives at all organisation levels.	Revised at multiple organisational levels . Ensure that the measures are: Clear and understandable Timely Credible Economical to maintain Related to a standard
Develop a preliminary BSC based on the objectives and goals of the organisation	Appropriate mix of outcome measures and performance drivers are obtained. Training programs are developed. Support overall financial and quality outcomes. Short and strategic measurements of the management system are developed.
Receive comments and feedback on BSC from management and revise it accordingly	Update the BSC based on the feedback. Involve organisational and business levels.
Achieve a consensus on the BSC that will be used	Meet the cause-and-effect relationships objectives. Secure effective communication.
Communicate both the scorecard and its underlying rationale to all stakeholders	Communicate the BSC with different stakeholders. Spread the knowledge of BSC. Increase system availability, responsiveness to user requests, and timely delivery. Link individual performance objectives and appraisal criteria.

Source: Proti (2002) and Martinsons (1999)

The literature documents the advantages of applying management information system in BSC. Al-Mudimigh (2009) suggests that applying a management information system increases the value of sharing information among all stakeholders. In addition, the information system prevents errors, decreases information asymmetry, and tracks and provides feedback about events. Furthermore, the management information system improves communication, makes knowledge more readily accessible, requires key pieces of information, assists with calculations, performs checks in real time, assists with monitoring, and provides decision support.

Andersson et al. (2003) claim that management information systems help managers and data providers to share common understanding of the work routines,

information demands, and other central preconditions at the clinical level. Furthermore, management information systems enable healthcare managers at different management levels to understand, visualise and conceptualise the activities, goals, and the strategy. Martinsons (1999) finds evidence suggesting that a BSC information system can be the foundation for a strategic management system, provided that appropriate measures are identified and key implementation obstacles are overcome.

Stewart and Mohammed (2001) summarise the advantages of applying information systems in organisations. These include facilitating document transfer and handling; enhancing coordination between project participants; reducing response time to answer queries; establishing and supporting the project alliance; empowering project participants to make decisions; enabling immediate reporting and receiving feedback; and identifying errors and/or inconsistencies. Stewart and Mohammed (2001) and Janhangiri and Dashti (2012) suggest that the information system of the BSC satisfies three objectives: (1) the information system categorises the measures and goals into levels (project level; business level; organisational level); (2) it creates a systematic relationship between the measures and goals of every noted level; and (3) it improves communication and understanding of performance evaluation across the organisation.

Bates and Gawande (2003) claim that information systems can assist in the flow of key related information to the internal process in healthcare services.

Chan (2006) finds evidence that more than 70% of BSC implementations fail due to the lack of highly developed information systems.

3.3.5 Culture

Kaplan and Norton (2004a) say that the concept of culture is rooted in anthropology, which defines an organisation's culture as the symbolism of myths and rituals embedded in the group consciousness. To understand an organisation's culture, the organisation's systems of shared meanings, assumptions, and values need to be uncovered. Culture reflects the predominant attitudes and behaviours that characterize how a group or an organization functions. Shaping the culture is the most often cited priority in the learning and growth perspective.

According to Kaplan and Norton (2004b), culture is perhaps the most complex and difficult social phenomenon to understand and describe because it encompasses a wider range of behavioural territory than the others do. Kaplan and Norton (2004b) claim that companies face difficulties in measuring culture as it is related to individuals' understanding of the strategy. However, they suggest that organisations use a measure coined by O'Reilly et al. (1991). In this measure, employees are asked to rank 54 value statements according to their perceived importance and relevance in the organisation. These 54 statements can be categorised into eight groups as shown in **Table 3.4**.

Table 3. 4 Measures of the organizational culture

Item	Measures of Culture
1	Innovation and risk taking
2	Attention to detail
3	Results-focused
4	Aggressiveness and competitiveness
5	Supportiveness of individual employee
6	Growth and rewards
7	Collaboration and teamwork
8	Decisiveness

Source: O'Reilly et al. (1991)

Mooraj et al. (1999) assert that the implementation of BSC can be affected by three major types of culture: national culture, occupational culture, and, the organizational culture. National culture affects the BSC primarily in terms of its

approach toward financial performance. Accordingly, national culture can be categorised into financial-based culture and customer-based culture. The occupational culture could be affected by a set of traditions. The organisational culture, certain occupations have their own defined culture, which consists largely of unstated, informal rules.

3.3.5.1 Organization culture

Henri (2006) suggests that the organisational culture is explained by the values of control and flexibility. Control values refer to predictability, stability, formality, rigidity and conformity; while flexibility values refer to spontaneity, change, openness, adaptability and responsiveness. Kaplan and Norton (2004a) claim that the organisation's culture should enable employees to understand and believe in the organisation's mission, vision, and core values. In developing BSC, Kaplan and Norton (2004a) suggest three essential intangible asset for implementing any strategy: human capital, information capital, and organisation capital. The organisation capital enables integration of human capital and information capital, with the main objective of ensuring that the organisation has a shared understanding of vision, mission, values, and strategy. The performance-based culture of the strategy and the multidirectional sharing of knowledge are responsible for ensuring that everyone works together and in the same direction. Kaplan and Norton (2001a) claim that performance-based culture emerges to link everyone and every unit to the unique features of the strategy.

Lämsiluoto and Järvenpää (2010) propose that organisational culture should be carefully taken into account when companies apply a strategic performance system such as BSC. They find that the organisational culture context may have a crucial effect on the implementation of a management system. Without the cultural fit, the implementation may be an extremely difficult process. Douglas et al. (2003) suggested

that organisational culture determines the nature of linkages between three sub-systems concerned with understanding the role of goals, measures, and performance management.

Papalexandris et al. (2004) discuss that Kaplan and Norton provide a significant insight into the potential application of BSC for private and public sector companies. In addition, they provide numerous designs and implementation examples from a range of industries. Nevertheless, little attention is paid to different supporting elements such as organisational culture and strategy, or management commitment, which may be considered critical for the successful implementation of BSC.

Olve et al. (1999) believe that “The purpose of a measurement system is not only to implement the company's strategy, but also to foster a culture in which constant change is a normal way of life.” Kaplan (1993) emphasises that “The BSC is not a template that can be applied to businesses in general or even industry-wide. Different market situations, product strategies, and competitive environments require different scorecards. Business units devise customized scorecards to fit their mission, strategy, technology, and culture.”

Butler et al. (1997) consider that the BSC of Kaplan and Norton is too general and point out that it may not suit a firm's culture. All discussions about the relationship between BSC and shareholders' value creation are culture-specific (Bremser and White (2000). Another observation is that, BSC has been developed in an American environment and does not reflect the influence of other cultures. Statistics show that companies implementing BSC are almost all located in North America and Europe, but there are none in Asia. The cultural factor tends to restrict wide application procurement

Antony et al. (2002) claim that culture is often underestimated and frequently overlooked. In addition, Antony et al. (2002) believe that an open culture is significant

to enhancing communication top-to-bottom, bottom-to-top, and across the departments. Thus, in an open culture, information will be shared by all staff. However, there are many cultural problems that organisations may encounter before implementing any new system.

3.3.5.2 Cross-cultural influences in Middle Eastern nations

The Islamic understanding of the leadership concept establishes the general norms and values of the region and is subject to cross-cultural influences. From an Islamic perspective, there is considerable overlap between the leader as a manager, in organizing human resources to achieve a goal; and the leader as a teacher instructing subordinates as a role model (Shah, 2006). The leader is presumed to have a greater degree of knowledge than subordinates, which is evidenced by the higher social status of the leader. In the Islamic culture of the Middle East, the leader has a responsibility to share knowledge with subordinates. One of the primary effects of globalization and cross-cultural influences on the Middle East has been to introduce market pressures, technologies, and institutional reorganization, creating greater emphasis on the managerial aspects of leadership, and reducing the importance of the instructional aspects of leadership (Mazrui, 1999; Shah, 2006).

According to Shah (2006: 370), “leadership perspectives are not fixed entities. These evolve and develop, although the nature and scope of change may vary from context to context.” The more business, social, and political relationships between Middle Eastern nations and other nations increase, the more likely the leadership paradigms will evolve to conform more closely to foreign paradigms. At the same time, there are substantial variations in the concept of leadership and how it should be exercised among societies in the Middle East (Shah, 2006).

According to Mazrui (1999), the cross-cultural influences that tend to create a more globalised culture are not absolute in their effect on Middle Eastern nations. Each nation absorbs only the aspects of the global culture suitable for its own cultural norms and values. As a result, some Middle Eastern nations strongly resist most foreign cultural influences because they are perceived as incompatible with existing norms and values.

Other Middle Eastern nations adopt a more flexible approach in that some aspects of global culture are perceived as compatible with fundamental cultural values and norms. Regardless of the cultural policy adopted by some Middle Eastern nations, foreign cultural influences are ubiquitous and produce some changes in the culture of the region despite resistance. Miller and Sharda (2000) examine the organisational structures in selected Middle Eastern nations to identify the effect of cross-cultural influences. They conclude that organisational structures indirectly reflect perspectives of leadership. These may be factors such as a centralized hierarchical structure concentrating control by the organisation's leader, or decentralized structure delegating leadership responsibilities to subordinates.

Den Hartog, et al. (1999) analysed the findings of the GLOBE survey on cross-cultural leadership to identify similarities and differences in the perspectives of leadership across cultures. In the theoretical framework underlying the analysis, the culture of the observer determined the emphasis and value placed on various attributes associated with leadership. In cultures characterised by high power distance, for example, a more positive attitude towards the authoritarian exercise of power is likely to exist when compared with a low power distance culture. The analysis tested the proposition that some leadership qualities or attributes are valued in all cultures by examining the degree that charismatic and transformational leadership was associated

with the ideal of an outstanding leader. The analysis found certain aspects associated with transformational leadership common in all cultures, including the cultures of the Middle East. These aspects included leaders who were encouraging and motivational. In addition, the analysis identified universal qualities associated with charismatic leaders, such as, the ability to be inspirational and visionary. The analysis identified dictatorial behaviour as a universal negative attribute associated with leadership. While few Middle Eastern nations provided data for the survey, the findings nonetheless suggest a relatively high level of similarity in the perception that the ideal leader is charismatic and makes limited use of transformational leadership methods. Furthermore, the ideal leader in the Middle East avoids making autonomous decisions without some consultation with the members of the group affected by the decision.

According to Noer et al. (2007), there has been relatively little research examining leadership development and leadership behaviours in Middle Eastern nations. Traditional cultural factors influencing leadership in the Middle East include a large power distance between leaders and subordinates, a collectivistic rather than an individualistic orientation, and a high level of uncertainty avoidance (Dastmalchian et al. (2001); Noer et al. (2007)). Based on this cultural framework, Middle Eastern leaders prefer an authoritarian approach over a leadership one; meanwhile, they consider the welfare of the group when making decisions. In addition, Middle Eastern leaders prefer to obtain a large amount of information about a problem and solutions prior to making a decision. This is to reduce the risks associated with uncertainty. According to Noer et al. (2007: 275) leaders demand “loyalty, obedience, and seek a social distance from those they manage, which may be partially attributed to authoritarian beliefs in Islamic social systems”. Despite the general similarities in leadership paradigms in the Middle East, there are significant national differences due to variations in historical development.

According to Shah (2006: 372), “the replacement of expatriates with nationals is a key aspect of labour market policy in Middle Eastern economies.” In some nations such as the KSA, the policy is intended to reduce or limit cross-cultural influences on Saudi society. The policy also has secondary objectives such as reducing the unemployment rate by encouraging Saudi nationals to obtain positions in the private sector, which has traditionally been dominated by foreign guest workers.

In many Middle Eastern nations, however, replacing the foreign workers with indigenous personnel has been difficult because of negative cultural attitudes towards manual labour and accepting positions perceived as lacking in status (Miller and Sharda, 2000).

One of the difficulties with leadership development in many Middle Eastern nations is the cultural bias of considering any position other than managing as less than honourable (Miller and Sharda, 2000). To some degree, the cultural bias creates a situation in which many individuals obtain the academic credentials necessary to qualify for managerial positions but do not have practical experience of leadership before assuming a position of authority.

As a result of the continued need to employ foreign nationals in many Middle Eastern nations, this source of cross-cultural influence is likely to persist in the Middle East. Foreign workers from other Arab or Muslim nations, however, appear to have less cross-cultural influence than foreign workers from Asia, Europe or North America, because their cultures are similar. The leadership styles used by foreign managers in executive and middle management positions sometimes conflict with the leadership styles used by indigenous managers. For example, in many firms in the KSA, foreign managers use participative leadership methods, consulting with subordinates prior to making decisions. While the participative or consultative approach in management is

part of the Islamic leadership tradition, it conflicts with some of the tribal or local authoritarian traditions, which tend to take precedent.

Generally, executives believe that the application of BSC requires a new culture, in the way business is conducted at all levels of an organisation. This means that people need to develop a new attitude and behaviour for BSC to be successful. Thus, successful organisations use the BSC to create a culture of continual understanding of strategy formulation, measurement, and revision.

3.3.5.3 Cross-cultural influences in Gulf nations

The rapid economic growth in the Gulf nations in the past two decades has led to the influx of foreign firms and international workers employed by both multinational and domestic firms. According to Miller and Sharda (2000), significant managerial conflicts have occurred in some of the Gulf nations such as the United Arab Emirates (UAE) because of differences in the perspectives of foreign and domestic workers. Macpherson et al. (2007) indicate that the conflicts occurred because foreign managers influenced organisations and, in some cases, governmental institutions to adopt practices and perspectives not fully compatible with Islamic values and the traditional culture of the peoples in the Gulf region. Although the Gulf nations have developed an open attitude towards foreign cultural influences and practices, the political and social leaders in these nations want to retain a distinct cultural identity. Alnajjar (1999) further explains that the conflict with foreign workers living in the Gulf States is not only because of cultural differences, but also because foreigners have different personal interests and in some cases they reflect their own home country culture.

Ali and Azim (1996) suggest that the Gulf nations have developed a more globalised business and cultural environment than many other Middle Eastern nations, which fosters greater adaptability and acceptance of foreign cultural influences. The

UAE adopts the position that cross-cultural influences do not inherently pose a threat to traditional customs and beliefs (Macpherson et al., 2007). In contrast, neighbouring nations, such as, the KSA, attempt to limit or restrict foreign influences introduced by globalization (Ali and Azim, 1996). They also surveyed college students and public employees in the Gulf States to identify indigenous work values for comparison with work values of foreign workers employed by private firms in the region. The sampling was confined to these sectors, because these individuals are indigenous, whereas a very high proportion of private sector employees are from foreign nations. The findings indicate that the general orientation of the respondents was towards a collectivist perspective, with a desire to achieve consensus before acting on a decision. The findings also indicate that respondents were influenced by their perceptions of the business practices of Westernized nations and from their observation and contact with foreign employees and managers in the private sector firms.

Alnajjar (1999) conducted a survey in the UAE to identify factors influencing organisational commitment in private sector firms. The survey examined UAE national employees in firms managed by both UAE nationals and foreign nationals. The study reported a higher level of job satisfaction and organisational commitment among UAE nationals when they were supervised by UAE managers. The findings also suggested that UAE nationals with higher levels of education adapted better to the management and leadership style of the foreign managers. The study concluded that cross-cultural conflicts emerging from differences in management styles and perceptions between UAE nationals and foreign managers exist in the UAE and have a negative influence on employees' job satisfaction and organisational commitment. The findings of the study also support the conclusion that educational level moderates cross-cultural conflicts,

suggesting that there may be greater foreign influences on individuals with higher educational levels.

Ali and Azim (1996) examine the cross-cultural influences on managers in the UAE. The findings suggested that foreign expatriate managers in the UAE perceived problems differently from indigenous UAE managers or from expatriate managers from other Arab nations. The survey also suggested that the foreign managers, who came primarily from the United Kingdom, the United States, and India, adopted a very objective perspective of organisational issues. The conclusions of Ali and Azim (1996) indicate that the presence of a large number of foreign managers in the UAE over the long-term would produce some cultural synthesis. In this process, indigenous UAE and Arab managers would adopt some of the objective practices and perceptions of the foreign managers, while the foreign managers would adopt some of the more subjective practices common in UAE business culture.

Another type of cross-cultural influence in some of the nations in the Gulf is the increased number of tourists and the development of tourism destinations (Abdulla, 2007). The Gulf nations, particularly the UAE, have developed their tourism industry over the past decade as a means to diversify the economy away from dependence on oil. The presence of many European, Asian, and North American tourists requires these nations to develop amenities according to the expectations of the visitors. In addition the behaviours and dietary habits of the visitors must be accommodated, which are often substantially different from the cultural norms in the Gulf nations. While most of the services for tourists are provided by foreign guest-workers in the Gulf nations, the presence of large numbers of tourists introduces varied cross-cultural influences that are difficult to control (Abdulla, 2007).

3.3.5.4 KSA culture

Arab society values obedience and deference to those at the top of the hierarchy of the family or a particular organisation (Hofstede, 1984). Hence, the systems of family and tribe may affect the actions of individuals within organisations in the KSA. These have a significant influence on interpersonal interactions and behaviours and also influence the organisation as a whole.

Some characteristics observed in KSA may appear to focus on the effect of individual and corporate success criteria on harmony, uniformity, and subordination to the group. The Saudi society tends to concentrate on obeying role obligations within a legitimately unequal distribution of power, roles, and resources (Hofstede, 1984). It is characterised by a highly traditional attitude towards the roles of genders based on the particular form of Islam that is widely practised. Based on Islamic law, it would appear that the Islamic ethic emphasises cooperation, consultation and social relations in work that may offer opportunities for learning. On the other hand, the systems of tribe, kinship, and family in the KSA that govern individuals' behaviour impact the hierarchy and obedience to authority, in that managers tend to be autocratic while subordinates expect direct supervision (Hofstede, 1984). This contradictory influence may cause opportunities for learning to be missed due to reliance on established procedures, which do not empower individuals to share and implement new ideas effectively. According to Hofstede (1984), organisations in the KSA have highly centralized systems, and highly controlled and bureaucratic bodies. This can be seen as a reflection of the "high uncertainty avoidance" principle identified as a part of the Arab culture. This principle infers that managers are not willing to be involved in situations where outcomes are not clearly determined and involve high risks.

The “power distance” represents how far individuals accept the unequal distribution of power in institutions and organisations. Hofstede’s (1984) results showed that Arab countries (including KSA) tend to be high on power distance. High power distance countries tend to favour highly centralised organisations with a strong separation between managers and employees, and with little vertical mobility. This can be seen through their multi-hierarchical levels.

Organisation structure, one of the necessary elements for organisations to function effectively, is also considered an important factor in transferring knowledge and learning between individuals and groups. In terms of organisational relationships, managers in high power distance societies tend to exert a greater influence over the behaviour of subordinates, who then tend to be submissive rather than independent. Hofstede’s (1984) analysis is in support of the view that the culture of the KSA encourages organizations that are highly centralised, strictly hierarchical and fully bureaucratic.

3.3.6 Linkage

The BSC is introduced to address the limitations of single dimensional performance measures. BSC is claimed to be a comprehensive strategic management mechanism for linking an organization’s long-term objectives and local operations (Kaplan and Norton, 1992, 1996, 2001b). Kaplan and Norton (2001b) emphasize the importance of linking process and outcome measures in a causal manner for strategic management purposes. Insufficient understanding of the linkage may confuse translation of the strategy (Thompson and Mathys, 2008). When linkages are misunderstood, users often fail to recognize that measures are needed to assess process

performance and that process measures need to be aimed towards meeting key customer satisfaction and financial performance objectives.

Chang, Ittner and Larcker (2001) suggest that a key element in managing the links between strategy and performance is the identification and measurement of the value drivers that actually contribute to a firm's value. Banker (2004) asserts that the success of BSC depends on strategic linkages between financial and non-financial measures. Such linkages enable employees at various levels of the organisation to understand how their actions and performance measures translate into company-wide performance. Inamdar et al. (2000) believe that the linkages in BSC help top management appreciate that internal and external activities are to be regarded as important in the long- as well as the short-term, expressed in both financial and non-financial terms.

Shulver (2000) argues that the understanding of cause-and-effect processes within an organisation is a key step to building an effective strategic plan. Understanding the cause-and-effect relationship helps managers to link BSC perspectives with the organisation's objectives, vision, and mission. A good BSC should thus form a chain of objectives and performance measures that are linked based on cause-and-effect relationships. Kershaw and Kershaw (2001) claim that the objectives and performance measures from each BSC perspective should be linked to one another. Discussion of how specific measures are to be utilized in performance reviews also helps reinforce accountability. In addition, it gives the units and divisions a clear understanding of the overall strategic direction the organization is seeking. This increase in awareness aids the collective understanding.

Ching-Chow et al. (2005) suggest four steps to understanding the linkage process. In this process, organisation members should (i) understand the advantages of

BSC; (ii) be familiar with organisation language, (iii) provide feedback to organisation members, and (iv) use various information transmission channels (written and verbal reports, formal reports, and informal reports). The whole BSC education and training architecture includes the following contents: the implementation process; core values; the organization's perspective; strategy; and, performance measurement index. Managers can spread BSC to each management level by complete education and training. In this step, members should understand the architecture of the perspectives, the competitive market, and future expectations. The BSC team should obtain related background data, such as, the organisation's mission, vision, value, strategy, competitiveness, and personal competition, to circulate to employees. Managers should use internal resources, such as strategic and marketing teams for this purpose. Managers can also apply background data such as performance reports and historical organisation data to aid the training process. The suggested steps by Ching-Chow et al. (2005) should help the members of an organisation to understand the linkage between their activities and the company mission.

Patel et al. (2008) conclude that frameworks such as those of BSC are useful strategic tools that link various performance indicators to performance management activities/processes of the organisation. However, their success is determined by understanding the relationship between indicators and how this relationship addresses the long-term performance goals.

Chapter 4: KFSH-RC in Context

4.1 Introduction

This thesis applies the case study approach s to the KFSH-RC.⁵ Very few studies discuss the BSC in the non-profit sector, and there is a particular dearth of research related to health care organisations. In the KSA, not a single study has been conducted on BSC in health care services. **Table A.1** (in the appendix) provides an overview of the main characteristics of the previous case studies conducted health care organisations.

In the case study of KFSH, the researcher consumed a considerable amount of time looking in detail at internal and published documents. Internal documents included the annual reports starting from 2003 to 2010 and the minutes of meetings related to BSC management. The researcher also examined some documents published on the official KFSH website.

In the KSA, KFSH is considered the main provider of health care. This hospital employs approximately 8500 staff and serves around one million patients annually, with a bed capacity of 1150. KFSH is located in Riyadh and was the first public tertiary care hospital in the KSA. KFSH is a public hospital funded by the government. It is currently serving a population of approximately 28 million residents. KFSH is also responsible for the referral of patients from the KSA and other nearby countries. The hospital has grown from an approximate 100-bed facility to over 1150 beds today, with considerable further expansions planned. Moreover, the further development of KFSH is justified by

⁵ The King Faisal Specialist Hospital (KFSH) was established on 450,000 m², of land that was donated by King Faisal Ibn Abdel Aziz Alsaud who laid the cornerstone for the hospital in 1970. In 1973, the government of Saudi Arabia commissioned the Hospital Corporation of America (HCA) to administer and operate KFSH. In 1975, King Khaled Ibn Abdel Aziz Alsaud conducted the opening ceremony of a 120 bed capacity hospital. The purpose of which was to provide tertiary care to the citizens locally, to avoid the hardship and cost of travelling abroad. In 1978, the first cardiac surgery was undertaken by the department of surgery with a team from the Baylor medical centre, Houston, Texas, USA. That was the first cardiac surgery in the Kingdom of Saudi Arabia.

the demographic growth of the area, the existence of the large number of centres served, and the national importance of the organisation.

The KFSH provides highly specialised care in most medical and surgical specialties and sub-specialties. The hospital treats seriously ill patients from all over the Arabian Peninsula and beyond. The budget of KFSH is based on governmental financial support, public investment funds, income from state insurance funds (hospitalisation and diagnostic examination fees), the income from holdings, income from donations, and income from bequests and clearances.

4.2 Background of KFSH

In 1975, King Khaled Ibn Abdel Aziz Alsaud conducted the opening ceremony of the 100 bed capacity hospital, the purpose of which was to provide tertiary care to the citizens locally, avoiding the hardship and cost of travelling abroad. According to the second article of the council of Minister Resolution No. 265, dated 30 Shawwal 1422H (14 January 2002) regarding the transformation of the KFSH and RC to General Organisation, the organisations objectives are as follows:

- To provide the best tertiary healthcare
- To contribute to the establishment of high specifications and standards for practising medicine in Saudi Arabia
- To conduct scientific and applied research related to health and medicine and to cooperate with other specialised institutions within Saudi Arabia and abroad
 - To develop therapeutic methodology and improve the health and medical service in Saudi Arabia in general and the medical sub-specialities in particular

- To cooperate with medical institutions and educational establishments in the KSA to enhance health education and health awareness among members of the society
- To participate in the provision of health education programmes and the training of Saudi nationals in order to ensure an adequate number of qualified specialists
- To provide accredited residency and fellowship programs for Saudi physicians in order for them to contribute to health care
- To publish in periodicals and scientific medical journals.

The strategic planning activities at KFSH-RC are managed by the Planning and Monitoring Department, which maintains and updates the strategic plan and strategic programs and projects. This department provides the methodology for executing the projects and tracking their progress in a consistent way. Strategic planning is the creation of a vision of the long-term future, involving the development of a clear view of the desired end-state for KFSH-RC five, ten or even fifteen years from now. Importantly, the strategic plan also involves how to achieve that vision. KFSH has concentrated on the strategic priorities and strategic programmes required to achieve their vision. These Strategic priorities and programmes are geared towards addressing the major planning components as follows:

- To provide world class/world leading services
- To provide the capacity required to serve long-term demands
- To provide the infrastructure needed to support capacity requirements
- To provide the staffing and skills that will be required to support the plan
- To provide the necessary funding to achieve the strategic goals
- To provide the organization and systems needed to support the strategies.

During 2007, KFSH carried out extensive internal and external analysis of business strategy consulting in the development of a set of ‘guiding principles’ encompassing their mission, vision, and values. In this endeavour, a number of factors were considered, including the driving forces that shape the long-term strategy. This also involved the development of four strategic priorities to guide long-term planning. Strategic programs were subsequently designed to support and achieve the strategic priority goals. An Executive Champion was then appointed, who would be responsible for the success of all work carried out on his or her program(s).

The action taken as a result of this analysis was the definition of a number of specific strategic projects required to achieve the overall strategic program objectives. Each strategic project followed the same project management methodology: a framework of four project stages, covering all activities from project initiation through project results assessment (KFSH Strategic Plan, 2012).

4.3 The strategic map of KFSH

4.3.1 Mission, Vision, and Values

The mission of KFSH is to provide the highest level and specialised healthcare in an integrated way, in educational and research setting. This statement reflects KFSH-RC’s status as a principal tertiary care hospital in the Kingdom that frequently deals with the most difficult medical cases, both locally, regionally, and even beyond.

The vision of the organisation is to be a world-leading institution of excellence and innovation in healthcare. This deliberately short statement encapsulates the organisation’s vision of competing in the international healthcare market at the very

highest level of expertise in the medical, educational and research areas. In attempting to create an effective organisation, KFSH aims at developing a clear and a concise set of shared values priorities, and directions, so that everyone understands and follows them.

KFSH & RC's five values are: 1) Patient focus: putting the needs of the patients first; 2) Integrity: adherence to high ethical principles to be truthful, transparent, equitable, and trustworthy; 3) Quality: striving for excellence and high quality through creativity and innovation; 4) Compassion: the treatment of the patients, their families, and team members with dignity and kindness; and 5) Teamwork: aims at working well together to ensure that knowledge and wisdom are shared for the benefit of all. The purpose of these values is to direct all employees to the methods and means to be used to accomplish the mission. Though these values are dominated by the regulations the government, the management of KFSH is able to adopt them in day-to-day practise and develop the desired organisational culture.

4.3. 2 Driving Forces

KFSH has identified seven driving forces that address the overall strategic direction of the organisation. These are outlined below.

The first driving force is international and regional competition. The increasing number of new or expanding healthcare facilities in the region may influence the role of KFSH & RC in the overall healthcare system in the KSA. In addition, such new or expanded facilities will offer more choices for patients as well as increase the competition for the same quality staff.

The second driving force is staffing challenges. In addition to competing for qualified staff, a number of other staffing challenges have been identified. These include establishing comprehensive career paths for all disciplines, comprehensive education

programs (particularly for Saudis), and improving employee facilities, maintaining a competitive compensation program, and handling currency fluctuation problems for international employees.

The third driving force is increasing demand. The population of the KSA continues to grow rapidly, albeit at a reduced rate. The number of elderly requiring tertiary care is also increasing steadily over time, as is the awareness and knowledge of healthcare in the community. All of these factors gradually increase the demand for medical services.

The fourth driving force is the limited capacity. KFSH & RC currently has quite long waiting lists in some areas and sometimes has to reject patients that may need tertiary care. There is a need for new initiatives to increase patient access by improving throughput, not only by expansion. Improved patient flow processes and the discharge or transfer of non-tertiary and long-term care patients to other qualified healthcare facilities have been identified as possible solutions.

The fifth driving force is the new developments in biomedical technology. Major advances and developments in biomedical technology have had significant impact on clinical practice through translational research. The government has developed a national plan for biotechnology (“The Saudi Biotech Complex”), in which KFSH & RC has a significant role to play in the coming years.

The sixth driving force is increasing cost. Since the cost of providing world-class medical services continues to grow. This is due to the introduction of more expensive diagnostic and therapeutic modalities, the international and regional competition for manpower, and the increasing cost of equipment, technology, pharmaceuticals, etc. KFSH & RC recognizes the need to consider how to improve

revenue generation and fundraising in the future. These activities are in addition to cost control measures, which form part of its overall long-term financial strategy.

The last driving force is privatization and healthcare insurance. KFSH & RC acknowledge the need to handle new administrative and financial requirements. The Saudi government is implementing privatization and healthcare insurance coverage, and hence KFSH & RC aims to address these administrative challenges as they occur.

4.3.3 The Strategic priorities of KFSH

KFSH has four strategic priorities for the next five years. These are staffing and skills, medical excellence, patient access, and efficiency and performance.

The first priority, staffing and skills, aims to satisfy the following objectives:

- Enabling KFSH to better compete in the regional and international job markets
- Ensuring salary scales and compensation packages are maintained at a competitive level
- Providing a wide range of educational and personal development capabilities at every level
- Establishing innovative ways to promote the well-being and satisfaction of employees, both in the workplace and in the wider social setting.

The second priority, patient access, aims to satisfy the following objectives:

- Developing world leading services⁶

⁶World leading programs or services can be considered world leading when they are not only world class level, but are also significantly more advanced than services provided by virtually all other healthcare institutions worldwide. Such services are usually pioneering in nature, causing other elite international organizations to seek visits, expertise and advice from KFSH & RC's specialists in the areas concerned, both in the Kingdom and at international venues. World leading medical and clinical services will typically have a high degree of integration with related research and education programs.

- Elevating all services to world class level⁷
- Identifying the specialties and sub-specialties that the Hospital wants to be known for, some of which will be developed to world leading status
- Designing and implement programs that will achieve world leading levels in the targeted disciplines.

The third priority, medical excellence, aims to satisfy the following objectives:

- Increasing service capacity
- Executing the major facility expansions planned for Riyadh and Jeddah
- Increasing patient throughput by redesigning all aspects of how patient flow is managed and the guiding of the patient's journey through the KFSH & RC system
- Minimizing the level of avoidable or inappropriate non-tertiary care in order to maximize the number of seriously ill patients that can be treated
- Developing strategic partnerships to leverage KFSH & RC healthcare across the region.

The fourth priority, efficiency and performance, aims to satisfy the following objectives:

- Improving systems and decision -making
- Streamlining the major administrative and medical systems of KFSH & RC to improve efficiency and effectiveness
- Ensuring adequate on-going staff training in all relevant information technology

⁷ World class programs or services can be considered world class when they have achieved a level comparable to that available in the best institutions worldwide. Such services are generally not pioneering in nature, but have been developed to the highest standard offered by the elite international healthcare organizations.

systems, as well as the promotion of the “super-user” concept in certain key positions

- Improving decision-making processes, particularly in relation to formal committees
- Clarifying roles and reporting lines to promote appropriate empowerment of line managers within their designated level of responsibility
- Improving delegation skills, including the joint accountabilities associated with good delegation practice
- Improving the handling of data and statistics, including standardized data definitions and consistent reporting of all administrative, financial, quality and performance management information.

4.4 The evolution of the BSC at the KFSH-RC

Following the development in strategic management systems,⁸ KFSH has applied BSC from 2006. The early stage of BSC was run by HEWITT (an American Company) due to its extensive experience in implementing BSC in many hospitals across the US. HEWITT’s initial action was to conduct meetings with senior executives to collect information about previous performance measurements at KFSH. This action was followed by meetings with mid-level management represented by the KFSH department directors, and ended up with meeting with the operational staff, enquiring about their daily activities.

HEWITT then constructed a questionnaire to measure KFSH’s staff understanding concerning the hospital’s strategy, mission, and core values. The data

⁸ BSC was implemented based on developments in strategic management systems, as well as upon the recommendation from the Joint Commission of International Approval (JCIA) and the American Academy of Continuing Medical Education (AACME).

collection process took four months and the results were presented to the senior executive. In 2007, the quality of care department at KFSH took the responsibility of managing and controlling BSC. The BSC at KFSH adopts five perspectives which are: medical care; quality of care; employee; finance; and the education and research perspective.

4.4.1 Medical care perspective

This perspective is covered by Medical Clinical Affairs (MCA), which is the largest group of the hospital with a staff of 4500. MCA consists of three major divisions: medical departments; clinical services; and patient services. MCA includes the departments of health outreach, infection control and environmental health, and medical and clinical informatics. The clinical informatics department is involved in initiating challenging medical specialties and making KFSH a centre of excellence for those areas of expertise. This is achieved through leading managerial and performance measurement strategies to offer best services/medical care.

The clinical service division is composed of 70 medical and technical departments that ensure a quantum healthcare service that guarantees proper service provision. The provisional staffs within the division are made up of an array of competent and varied professionals. These individuals work in healthcare teams to provide high levels of expertise to medical specialists and sub-specialties for the patients of KFSH & RC.

Patient services provide an array of services to support the efficient delivery of high quality healthcare. This involves monitoring clinics; patient appointments; coordination and facilitation of patient's admission and discharge; provision of psychosocial assistance and counselling service; and the availability, confidentiality,

and delivery of medical records. **Table 4.1** shows the measures of medical care perspectives that are applied by KFSH-RC.

Table 4. 1 Medical care perspectives

Item	Measures
1	Total number of beds
2	One day beds
3	Occupancy rate
4	Average length of stay
5	Inpatient days
6	Total operating cases
7	Outpatient clinic visits
8	Emergency encounters
9	Day unit activities
10	Laboratory tests
11	Radiological procedures
12	Cardiac surgeries
13	Cardiac catheterization procedures
14	New cancer cases
15	Bone marrow transplants
16	Kidney transplants
17	Liver transplants
18	Lung transplants
19	Pancreas transplants
20	Heart transplants
21	Chemotherapy sessions
22	Radiotherapy sessions
23	Home healthcare visits

Source: The annual reports of the KFSH

4.4.2 Quality of care perspective

This perspective includes increasing the service capacity, through effective facility planning, expansion of projects, outreach health programs and patient throughput. This involves an approach of demand and capacity projection and an acquisition/expansion strategy. According to KFSH, significant achievements (between 2009-2010) were made in quality management, in collaboration with multidisciplinary teams, hospital annual report (2010). KFSH is currently involved with projects for

updating the BSC clinical documentation audit methodology, and the outsourcing of patient satisfaction surveys.

KFSH considers that the customer perspective is a proxy for the quality of care perspective. With regard to the quality of care, the strategic objectives of the organisation refer mostly to the quality of medical services. These are strongly related to the principal role of KFSH as the main clinical and medical service provider. In this context, the objectives of the organisation for the quality of care consist of the following: improvement of quality of provided services; coverage of demand for medical services; increased reliability of medical services; and increased effectiveness of medical services and human resources development. Table 4.2 shows the measures of the quality of care perspective applied by the KFSH-RC.

Table 4.2 Quality of care perspective

Item	Measures
1	Inpatients' satisfaction
2	Outpatients' satisfaction

Source: The annual reports of the KFSH

4.4.3 Employee perspective

This perspective includes strengthening staff selection, recruitment and retention strategies, and incorporating HR and recruitment programs. The objective is also to provide an employee friendly environment and education programs, thorough the approach of change management, skill projection, and effective organisational roles.

Table 4.3 shows the measures of the employees' perspective applied by the KFSH-RC.

Table 4.3 Employees perspective

Item	Measures
1	Number of physicians
2	Number of nurses
3	Training positions
4	Research science
5	Technical Heal.
6	Technical Non-Heal.
7	Admin services
8	Labour

Source: The annual reports of the KFSH

4.4.4 Financial perspective

This perspective involves improving the efficiency and effectiveness of the financial decision making process, focusing on cost and billing actions with operational linkages. Thus, future efforts focussing on increasing liquidity (current ratio) and further improving the efficiency of the organisation (inventory turnover). Additionally, the management of the hospital plan to concentrate its efforts on increasing profitability (net profit margin) and capital turnover (operating revenues to assets ratio). **Table 4.4** shows the measures of the financial perspective that are applied by KFSH-RC.

Table 4.4 Financial perspectives

Item	Measures
1	General revenues
2	Annual budget
3	Procurements and planning Department
4	Received purchase orders

Source: The annual reports of the KFSH

4.4.5 Education and research perspective

This perspective includes improvement in systems, advanced information technology training, data reporting skills, employee educational programs, skill development programs, and research integration initiatives. The relatively good performance of KFSH in the education and research perspective is justified by the high

performance score of the KPI, which is related to resource allocation to information technology/capital. Hospital managers focus their improvement efforts almost exclusively on technological growth, by purchasing new information technology systems in the last year. For this reason, future improvements concern the other strategic objectives of this perspective (i.e. collaboration with other institutions/organisations and human resources management). **Table 4.5** shows the measures of the education and research perspective applied by KFSH-RC.

Table 4.5 Education and research perspective

Item	Measures
1	Residency programs
2	Residents
3	Residency compound
4	Short-term rotating residents
5	Fellowship programs
6	Fellows
7	Fellow completions
8	Scholarships
9	Physicians in School
10	Non-physicians in school
11	Physicians completed school
12	Non-physicians completed school
13	Number of Saudi Career Development Program trainees
14	Other training programs
15	Number of in-house trainees
16	Students from KSA
17	Life support training centre
18	Symposia and workshops
19	Training American Academy of Continuing Medical Education(hrs)
20	Distribution-annals of Saudi medicine
21	Research projects
22	Number of publications
23	Symposiums & workshop
24	Outreach collaborating centres
25	Surgery cases outreach
26	Laboratory tests from centres
27	Total consultant visits
28	Continuing Medical Education hours

Source: The annual reports of the KFSH

4.5 Summary and Conclusions

This chapter summarises the background of BSC at the KFSH. The researcher collected detailed data on KFSH through intensive work in reading and reviewing internal and external documents to summarise the background of KFSH.

The revision of these documents shows that in the early stages of BSC implementation, the HEWITT organisation took responsibility for introduction and management, due to its extensive experience in implementing BSC in many hospitals across the US. After the administration of HEWITT, the management and control of BSC moved to the quality department at KFSH. The BSC at KFSH adopts five perspectives, which are: medical care; quality of care; employee; finance; and the education and research perspective. Each perspective is translated into different measures.

Chapter 5: Research Methodology and Design

5.1 Introduction

This chapter discusses and develops the research methodology and research design for the underlying thesis. Yin (2003) defines research design as a logical plan to answer or set a conclusion for the initial research questions. Hence, the research design articulates what data is required, what methods are going to be used to collect and analyse data, and how all are going to answer the research question. In other words, the research design is the strategy, the plan, and the structure of answering a research problem. Furthermore, a research design describes a flexible set of guidelines that connects theoretical paradigms to strategies of inquiry and methods for collecting empirical material. De Vaus (2001) considers that the main purpose of the research design is to reduce the ambiguity of much research evidence.

According to Gill and Johnson (2010) and Hallebone and Priest (2009), the research design is a plan that guides a researcher in the process of collecting, analysing, and interpreting research findings. Therefore, research design includes strategic decisions concerning the choice of data collection methods and more tactical decisions regarding measurement and scaling procedures, questionnaires, samples, data analysis, and findings (Hallebone and Priest, 2009). It is concluded that the components of research design include a research question, the propositions or hypotheses, the unit of analysis, the logic linking the data with the proposition or hypotheses, and the criteria for interpreting the findings.

Research design is different from the research method in terms of which data are collected. The research design is a logical structure of the inquiry. However, the research method is a mode of data collection. Robson (2002) and Hallebone and Priest

(2009) define the research methodology as a set of procedures and rules to guide the researcher with sampling design, data collection, data analysis, and limitations or constraints that the research faces. Saunders et al., (2009) suggest that choosing the right research methodology depends on specific criteria. These include the aim of the study, the type of information needed, the character of participants, manipulation of independent variables, the degree of control that the researcher has over the case under study, and constraints of time and money. **Table 5.1** explains the difference between the research design and research methodology. Section 5.2.3 further details the research methodology.

Table 5.1 The differences between the research design and research methodology

Research design	Research methodology
Focuses on the end-output: What kind of study is being planned and what kind of results are aimed at. E.g. Exploration, description, explanation, historical, comparative study, interpretive approach, inductive or deductive etc.	Focuses on the research process and the kind of tools and procedures to be used. E.g. Document analysis, survey methods, analysis of existing (secondary) data/statistics etc.
Point of departure (driven by) = research problem or question.	Point of departure (driven by) = specific tasks (data collection or sampling) at hand.
Focuses on the logic of research: What evidence is required to address the question adequately?	Focuses on the individual (not linear) steps in the research process and the most 'objective' (unbiased) procedures to be employed.

Source: Saunders et al., (2009)

5.2 Research purpose, and research paradigm and philosophy

5.2.1 Research purpose:

Saunders et al. (2009) consider the research purpose as the way in which a researcher asked his/her research question to result in descriptive, exploratory, or explanatory answers. Thus, the classifications of research purpose most often applied in the literature of research methods are exploratory, descriptive and explanatory. However, the research question can be both descriptive and exploratory; consequently the research study may have more than one purpose. In addition, as Robson (2002)

suggests, the purpose of the research enquiry may change over time due to the development of research.

Descriptive studies depict an accurate profile of persons, events, organizations, or situations (Robson, 2002). This type of research is considered the extension to either the exploratory or explanatory research. According to Saunders et al. (2009), it is necessary to have a clear picture of the phenomena on which the researcher wishes to collect data prior to the collection phase. The descriptive approach in business research has a considerable place since it utilizes other approaches. Such studies are known as descripto-explanatory studies or descripto-exploratory studies. The object of descriptive research is "to depict an accurate profile of persons, events, or situations" (Robson 2002).

Exploratory research is a valuable means of finding out "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002). This type of research is useful if a researcher wishes to clarify his/her understanding of a problem. This research also applies when a researcher is unsure of the precise nature of a particular problem. Saunders et al. (2009) list three fundamental ways of conducting exploratory research which are looking into existing literature; interviewing 'experts' in the subject; and conducting focus group interviews.

Explanatory research focuses on "why" questions which involve developing causal explanations. Accordingly, explanatory research establishes causal relationships between variables (Saunders et al., 2009). Veera et al. (2008) explain that the explanatory research is a continuation of descriptive research. The researcher goes beyond mainly describing the characteristics, to analysing and explaining why or how the phenomenon being studied is happening. Thus, explanatory research aims to understand phenomena by discovering and measuring causal relations among them. The

researcher uses theories or at least hypotheses to account for the forces that caused a certain phenomenon to occur. Saunders et al. (2009) explain that an important element of explanatory research is identifying and, possibly, controlling the variables in the research activities. This permits the critical variables or the causal links between the characteristics to be better explained. A variable is a characteristic of a phenomenon that can be observed or measured. **Table 5.2** compares the basic research purposes.

Table 5. 2 A comparison of basic research design

	Exploratory	Explanatory	Descriptive
Objective	To provide insight and understanding	To determine cause and effect relationships	To describe market characteristics or functions
Characteristics	<ul style="list-style-type: none"> • Flexible • Versatile 	<ul style="list-style-type: none"> • Manipulation of one or more independent variables • Control of other mediating variables • Experiments 	<ul style="list-style-type: none"> • Marked by the prior formulation of specific hypotheses • Pre-planned and structured design.
Outcome	<ul style="list-style-type: none"> • Generally followed by further exploratory or conclusive research. 	<ul style="list-style-type: none"> • Causal relationship 	<ul style="list-style-type: none"> • Gives a detailed picture of organizations, individuals, or phenomenon.
Methodology	<ul style="list-style-type: none"> • Expert surveys. • Pilot surveys • Case study • Secondary data (qualitative) • Qualitative research 	<ul style="list-style-type: none"> • Experiments. 	<ul style="list-style-type: none"> • Secondary data (qualitative) • Surveys • Panels • Observation and other data.

Source: Saunders et al., (2009)

5.2.2 Research paradigm and philosophy

Research paradigm and philosophy are important in setting the guidelines and the principles of approaching research. Saunders et al. (2009) define the research paradigm as a way of examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted. Collis and Hussey (2003) refer the research paradigm to the process of investigating the

progress of scientific practice based on people's philosophies and assumptions regarding the world and the nature of knowledge.

Smith (1998b) identifies three reasons why the research philosophy is important. First, the research philosophy helps the researcher to refine and specify the research methods to be used in a study. Consequently, it serves to determine the research strategy. Johnson and Clark (2006) claim that business and management researchers need to be aware of the philosophical commitments that they make through their choice of research strategy since this has significant impacts not only on what they do but also on what they understand. Second, understanding the research philosophy enables and assists the researcher to evaluate different methodologies and avoid inappropriate use and unnecessary work by identifying the limitations of particular approaches at an early stage. Third, it helps the researcher to be creative and innovative in selecting a new approach that may have been excluded by other researchers. Saunders et al. (2009) argue that the research philosophy adopted contains important assumptions about the way in which the researcher views the world. In the light of this discussion, two major ways of thinking about research philosophy are explained. These are ontology and epistemology.

Ontology is concerned with the nature of reality and the assumptions that the researchers have about the way the world operates and the commitment held to particular views. Ontology serves two main aspects: objectivism and subjectivism. Objectivism portrays the position that social entities exist in reality external to social actors concerned with their existence. Subjectivism on the other hand, holds that social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence (Saunders et al., 2009).

Epistemology is concerned with what constitutes acceptable knowledge in a field of study. Epistemology answers questions about the relationship between the researcher and what he/she knows. For example, “how do we know what we know?” and “what counts as knowledge?” In addition, epistemology distinguishes true (adequate) knowledge from false (inadequate) knowledge. Bryman (2008) explains that the critical epistemological debate in terms of conducting social science research is whether or not the social world can be studied according to the same principles as the natural sciences. There are three broad epistemological positions: positivism, realism, and interpretivism or constructivism.

Positivists think that the purpose of research is scientific explanation. Neuman (2003) considers that positivists see social science as an organized method for combining deductive logic with precise empirical observations of individual behaviour. This is done in order to discover and confirm a set of probabilistic causal laws that can be applied to predict general patterns of human activity.

Realism is similar to positivism in that it assumes a scientific approach to the development of knowledge (Saunders, 2009). Realists believe that the social world of business phenomenon exists as an objective truth independent of the human mind. Thus, the philosophy of realism is that there is a reality quite independent of the researcher's mind. Bhaskar (1998) argues that researchers are only able to understand what is going on in the social world. Understanding the social structures is crucial to construct and deconstruct social phenomenon. In other words, what we see is only part of the bigger picture.

Interpretivism claims that the social world of business is far too complex to lend itself to theorising by definite ‘laws’, in the same way as the physical sciences. Interpretivists consider that the theoretical framework for most qualitative research sees

the world as constructed, interpreted, and experienced by people in their interactions with each other and with wider social systems ((Maxwell, 2006), (Bogdan and Biklen, 1992a), (Guba and Lincoln, 1994), (Merriam, 1988)).

The interaction between the research methodology and the research philosophy serves to clarify the research strategy. By doing this, ontology and epistemology set the guidelines that show how research is to be conducted (Sarantakos, 2005). The positivist research paradigm applies quantitative methodology such as survey. The realist/objectivist ontology and empiricist epistemology contained in the positivist approach requires a research methodology that is objective or detached from the researcher's perceptions (Sarantakos, 2005), (Marczyk et al., 2005). The data collection tools focus on gathering data in the form of numbers to enable evidence to be presented in quantitative form (Neuman, 2003) and (Sarantakos, 2005).

On the other hand, qualitative methodology is supported by interpretivist epistemology and constructionist ontology. This assumes that meaning is embedded in the participants' experiences and that this meaning is mediated through the researcher's own perceptions (Merriam, 1988). Researchers use qualitative methodology in which they engage themselves in a culture or group by observing its people and their interactions. Researchers often participate in activities, interview key people, construct case studies, and analyse existing documents. The qualitative researcher's goal is to attain an insider's view of the group under study.

5.2.2.1 Inductive versus deductive

Determining the research philosophy not only facilitates the research strategy but also helps in either building a theory or testing hypotheses. The more researchers' are clear about the theory, the more they are able to distinguish between deduction and

induction. In the deductive approach, researchers develop a theory and hypothesis (Veera et al., 2008). Then, they design a research strategy to test the hypothesis. On the contrary, in the inductive approach researchers collect data and develop a theory as a result of their data analysis. Veera et al. (2008) define the deductive approach as a study in which a conceptual and theoretical structure is developed and then tested by empirical observation. Consequently, particular instances are deduced from general inferences. Therefore, the deductive approach is referred to as moving from the general to the particular. This involves collecting specific data on the variables that the theories have identified as being important. Then, hypotheses are developed from the theory. Researchers then express the hypotheses in operational terms (indicating exactly how the concepts or variables are to be measured). Finally, testing and examination of the hypotheses either leads to confirmation of the theory or indicates the need for its modification.

Robson (2002) lists three characteristics associated with the deductive approach. First, the variables are controlled, which allows the testing of hypotheses. Second, the conceptual framework and the concepts are operationalized in a way that enables facts to be measured quantitatively. Finally, the outcomes can be generalised since the data is collected from relatively sufficient sample size. However, the opponents of the deductive approach argue that because of its tendency to construct a rigid methodology, it does not permit alternative explanations of on the true situation (Robson, 2002).

Saunders et al. (2009) and Robson (2002) define inductive research as a study in which theory is developed from the observation of empirical reality. Consequently, general inferences are induced from particular instances. This is the reverse of the deductive method. Research using an inductive approach is likely to be particularly concerned with the context in which such events were taking place. Easterby-Smith et

al. (2008) suggest that the characteristics of the inductive approach are more likely to work with qualitative data and that a variety of methods should be used to collect these data in order to establish different views of the phenomena.

5.2.3 Research methodologies: Qualitative and quantitative

In social science research, qualitative and quantitative are the two main research approaches that have been applied for many years. In the last couple of decades, researchers have begun combining the two methodologies to seek a better and more in-depth understanding of different phenomena (Benoit et al., 2007).

The quantitative methodology follows the philosophical foundation of the positivism paradigm (Weaver and Olson, 2006). As explained before, the positivism paradigm is based on rigid rules of logic and measurement, truth, absolute principles, and prediction (Halcomb and Andrew, 2005, Weaver and Olson, 2006). Positivists claim that there is one objective reality. Consequently, valid research is demonstrated only by the degree of proof that correspond to the specific phenomena under study (Hope and Waterman, 2003).

In quantitative research, the collected data are measurable, often systematically standardized, and easily presented in a short space of time. The quantitative method is primarily based on questionnaires. These provide both advantages and disadvantages depending on the phenomenon under study. An advantage is that it is relatively easy to reach many respondents, giving the researcher a significant amount of data which, in turn, leads to the possibility of generalization. Andersen (1998) explains that the quantitative research method often assumes that the respondents are able to describe the situation or the reality using pre-set given answers. This puts strong limitations on the collected data, such as not reaching underlying factors, like attitude and feelings. Hence,

additional unknown knowledge may not be detected. This questionnaire relies on empirical data, with the variables operationalized in a manner that allows measurement.

Creswell (2009) explains that the purpose of quantitative research is to test a hypothesis concerning the relationship between variables under investigation in the study. This approach also uses sampling methods such as random sampling, intended to support the generalisation of the data from the specific study population to a larger population through deductive inference. Bryman and Bell (2008) show that quantitative research can take place in a controlled environment, although not all quantitative research can be considered experimental because of differences in design and participant selection methods.

Patton (1996) defines qualitative research as “the process by which researchers attempt to understand the unique interactions in a particular situation”. The purpose of understanding is not necessarily to predict what might occur, but rather to fully understand the characteristics of the situation and the meaning brought by participants and what is happening to them at the moment. Qualitative research aims to present findings to others who are interested in what you are doing.

Andersen (1998) suggests that during the qualitative phase, researchers should focus on the importance of feelings, intentions, behaviour, motives and thoughts. Bogdan and Biklen (1992b) argue that there are many different ways of understanding the world; thus, researchers should understand the respondents in their social context. In the qualitative approach, researchers work with relatively few respondents who are intensively studied and thereby a significant amount of detailed information is generated.

Bryman and Bell (2008) state that qualitative method depends mainly on verbal descriptions of the phenomenon under investigation. However, the approach does not

preclude the use of empirical measures when appropriate for answering the research question or providing context for the narrative data. The main objective of qualitative research is to describe the perceptions of people experiencing a phenomenon or to develop an emerging theory based on observed data. In qualitative research, the subjects/people establish the boundaries of the investigation, with the perspective of the subjects controlling the direction taken by the research.

Qualitative research takes place in the natural environment of the subjects, with the researcher not attempting to control or modify the environment for research purposes. In addition, the researcher interacts with the subjects in the data collection and analysis process, which introduces a greater degree of subjectivity into the research method when compared to quantitative methods. As a result, understanding the findings of the study depends on the context, with the findings not replicable by subsequent researchers. Thus, a disadvantage of this approach is that it reduces the ability to generalize since the response is neither systematic nor standardized. **Table 5.3** summarises the main differences between quantitative and qualitative methods.

Table 5.3 Differences between quantitative and qualitative methods

	Qualitative	Quantitative
Philosophy	Phenomenology, critics	Positivism
Goal	Understand, meaning	Prediction, test hypothesis
Method	Ethnography/Action research, Case study	Experiments/Models
Data collection	Interviews, observation, documents, artefacts	Questionnaire, secondary data
Research question	Comparative, broad or central questions, complex, use to grounded theory	Descriptive, comparative, and relationship
Research Design	Flexible, emerging	Structured, predetermined
Sample	Small, purposeful	Large, random, representation
Generalization	Unique case selection	Generalisation
Analysis	Inductive	Deductive

Source: Bryman and Bell, 2008

5.2.3.1 Rationale of mixed methodologies research

The central goal of mixed methods research is to maximise the advantages of quantitative and qualitative research and to ensure that disadvantages are minimized (Gelo et al., 2008). Mixed methodology helps enrich the research design, data collection, and data analysis. In such type of research, the data collected from quantitative and qualitative methods may help provide interpretation for a survey, form a sampling frame, add to the development of the survey, and increase return rate (Sieber, 1973).

Creswell and Plano (2011) explain that since the context and setting are not well understood by the researcher in quantitative research, the qualitative approach provides interpretation of the phenomenon in its context. However, when qualitative research is conducted alone, this insight can have too much influence on data interpretation. Further, mixed methods research provides more evidence from different sources to answer research questions. In the same vein, researchers are also able to ask different research questions and can use multiple paradigms to have multiple worldview (Gelo et al., 2008). Toomela (2008) argues that mixed methods research allows data collection and analysis to be integrated better than research using a single methodology. For instance, by collecting qualitative data, researchers can overcome the concern about information encoded in quantitative variables and therefore meaningful interpretations can be obtained

The mixed method research includes the benefits of converging or corroborating of findings and minimising alternative explanations for findings (Johnson and Turner (2003). Coyle and Williams (2000) report that mixed-methods approaches produce findings that are more accurate and comprehensive. Finally, Morse and Chung (2003)

suggest that mixed methods research provides a more balanced worldview than purely quantitative or purely qualitative research.

5.2.3.2 Triangulation

In the last decades, a considerable volume of social research studies applied multiple methods. Jick (1979) argues that qualitative and quantitative methods should be viewed as complementary rather than as rival camps. Mixing quantitative and qualitative methods generates what is known as a triangulation approach. Triangulation involves the application and combination of several research methodologies to answer one research question (Schneider et al., 2003) and (Taylor et al., 2007). Denzin (1970) defines triangulation as the combination of methodologies in the study of the same phenomenon. In the social sciences, the use of triangulation can be referred to Campbell and Fiske (1959). Campbell and Fiske (1959) argue that the main purpose of triangulation is to enhance the researcher's belief that the results are valid and not a methodological artefact. Triangulation also aims to enhance reliability and convergent validation and it can also capture a more complete, holistic, and contextual portrayal of the unit under study (Jick, 1979). Triangulation may be used not only to examine the same phenomenon from multiple perspectives but also to enrich the researcher's understanding of it by allowing for new or deeper dimensions to emerge (Jick, 1979).

The literature considers four common types of triangulation method. There are methodological triangulation, data triangulation, investigator triangulation, and theoretical triangulation.

Methodological triangulation is the most popular use of triangulation, and involves using more than one methodological strategy during data collection. This kind of triangulation is considered the vehicle for cross-validation when two or more distinct methods are found to be congruent and yield comparable data. In addition, applying

multiple and independent measures provides a more certain understanding to a particular phenomenon.

According to Roberts and Taylor (2002), data triangulation can be defined as the use of multiple sources of data at different times, in different places, and with different persons to obtain different views about a situation in one study. For Halcomb and Andrew (2005), data from multiple sources is to be used for cross-checking and validating findings. Consequently, the depth and quality of the results are improved. Data triangulation provides guidance and in-depth data, increases confidence in the research results, and enables different dimensions of the problem to be considered (Barbour, 1998). Furthermore, multiple data sources help validate the findings by exploring different views (Taylor et al., 2007).

Theoretical triangulation is defined as the use of more than one theoretical perspective or hypothesis when examining the phenomenon (Denzin, 1970). Thurmond (2001) argues that the theoretical triangulation includes looking through multiple lenses and having many questions in mind, which lend support to or refute findings. According to Denzin (1970), theoretical triangulation may examine hypotheses with similar or opposing viewpoints

Investigator triangulation involves using more than one researcher, observer, interviewer, coder, or data analyst in one study. Denzin (1970) argues that confirmation of data among investigators, without prior discussion or collaboration with one another, lends greater credibility to the observations. Denzin (1970), Mitchell (1986) and Boyd (2000), report that the main purpose of using more than one observer is to decrease the potential of bias in gathering, reporting, coding, or analysing of the data. Consequently, the internal validity is verified.

Despite some clear advantages of using the above named methods, Thurmond (2001) lists the main challenges of applying the triangulation approach. These challenges are (i) increased amount of time needed in comparison to single strategies, (ii) difficulty in dealing with the vast amount of data, (iii) potential disharmony based on investigator bias, (iv) conflicts because of theoretical frameworks, and (v) lack of understanding of why triangulation strategies were used.

5.3 Research strategy - Case study

According to Saunders et al. (2009), research strategy is defined as a general plan of how the researcher will go about answering the research questions and meeting the research objectives. Gerring (2004) and Peter (2010) define the case study as a social phenomenon which is carried out within the boundaries of one social system, or within the boundaries of a few social systems. These social systems include people, organisations, groups, individuals, local communities or nation-states, in which the phenomenon to be studied exists, in the case's natural context. The case study strategy monitors the phenomenon during a certain period or, alternatively, by collecting information retrospectively following the development of a phenomenon during a certain period. The main objective of this approach is to understand a large set of units through a single similar unit.

In the case study, the researcher, guided by an initially broad research question, explores the data and only after some time formulates more precise research questions. During this process, the researcher must be aware of unexpected aspects of the process by abstaining from pre-arranged procedures and operationalisation. Tellis (2005) points out that the case study can be explanatory, exploratory, or descriptive. Further, case studies may be theoretical or empirical or both. In addition, the case study approach

may be conducted in either a quantitative or qualitative manner or both. The role of researchers in this method is to explore people and events as neutrally as possible.

5.3.1 Reasons for applying the case study approach

Researchers in social science apply a case study approach for several reasons. One reason may be that many problems exist in different organisational structures, different branches of government, and between different policies. These problems also exist within different, controversial, and conflicting values and meanings that come from a diversity of organisational, political, social, legal, and historical conditions. This point highlights the difficulties often present in public organisations. This complexity, which needs to be addressed with much attention, requires a method of research with powerful capabilities that can deal with administrative problems. Hummel (1977) suggests that the case study approach offers a rich methodology that helps researchers become deeply involved in administrative problems and gain better understanding. Thus, the case study is a helpful tool for the researchers in public organisations, since it allows them to discuss details and go in depth about the origins of any problem in complex settings.

Another reason for the case study approach is that a public organisation does not necessarily have only one narrative (explanation) that is accepted by all researchers in this field. Many different types of narratives exist in the field, for example, the narrative of public organizations is often an implicit knowledge that is hard for outsiders to understand. Although the researchers in the field have rich academic experience in public administration, the lack of understanding the specific narratives in public organizations remain. Case studies help researchers from different local narratives to communicate with participants. It helps them to avoid any misinterpretation when they deal with different narratives by probing deeply to understand the meaning.

Al-Habil (2012) argues that case studies in public organisations can be effective if applied properly. Some highly regarded case studies do exist in the BSC literature, such as those conducted by Sawhill and Williamson (2001), Kaplan and Norton (2001a) and Niven (2002). Elkins (1998) also confirms that many of the most important studies in public organization have been developed through case-study analysis. Due to its past success, many scholars in the field may feel more comfortable using a method that is not transferred from another discipline (McCurdy and E., 1984). It may be implied that the researchers in public administration may use a research method they are familiar with, and because it was used to establish the early theoretical insight in public organisation.

5.3.2 The challenges of the case study

When defining the case-study approach, one can suggest two opposing views of the role of case study in public administration research. First, the supporters of the case study may see the richness of this research method and its ability to fit into different administrative settings. For instance, a case study can be theoretical or empirical, found in positivist, critical theory, or interpretive research, and can be exploratory, explanatory, or descriptive. This provides researchers in public organisations; a complicated field, a set of effective tools to deal with the different and complex conditions. On the other hand, a negative perspective supported by White and Adams (1994) considers the case study as an uncertain research approach that does not produce effective knowledge in public organisations.

5.4 The rationale of the research philosophy and methodology

The literature review (Chapter 2) undertaken as part of this research identified that BSC is developed through three generations. The theory of BSC coined by Kaplan

and Norton (1992) suggests that the process of BSC helps employees to understand the linkage between what they do and the organisation's mission, vision, values, and strategy. The conceptual framework, (Chapter 3), suggested that understanding the interrelation between BSC and the business strategy depends on the presence of several identified determinants. These determinants include effective communication, the generation of BSC applied, the weighting process, the availability of a management information system, the organisational culture, and the linkage between the companies' daily activity and the strategy.

The quantitative phase of the research examines the level of understanding of the BSC perspectives among the staff of KFSH. It also aims to evaluate the understanding of linkage between BSC and strategy of KFSH. The quantitative methodology shares its philosophical foundation with the positivist paradigm. As explained above, such philosophy claims that there is one objective reality. This philosophy includes rigid principles that make the investigation into BSC inflexible to explain the reality of such phenomena. As a result, qualitative methodologies are also incorporated into the research design. The qualitative part aims to examine the exposure of KFSH's staff to the determinants of success or failure of BSC. This type of philosophy focuses on the holistic perspective of the person and environment, which is more congruent with social research (Weaver and Olson, 2006).

Due to the lack of knowledge and the complex nature of the research study, there is no single paradigm that could satisfy the research objectives. Consequently, the researcher found it necessary to combine the quantitative/positivist paradigm with the

qualitative/interpretive paradigm. Such combination provides the researcher with the ability to statistically analyse the phenomenon and understand the perceptions of clinical and non-clinical staff.

The triangulation approach helps to examine the designed conceptual framework from different aspects; thus deductive approach is applied in this research. This approach is useful to examine the research hypotheses. In addition, the conceptual framework and the concepts that make it need to be operationalised in a way that enables facts to be measured quantitatively.

Based on the discussion above, a case study strategy based on quantitative and qualitative methodologies is applied in this research. Examining implementation of BSC in the KFSH helps to uncover the reality of BSC in public organizations. This complexity, which needs to be addressed in fine detail, requires a method of research with powerful capabilities that can deal with administrative problems. The case study approach is the best tool to offer a deep analysis of the BSC phenomenon. This depth is based on the high degree of “the detail, richness, completeness, wholeness, or degree of variance that is accounted for any explanation” in a case study (Gerring, 2004). The main disadvantage of the case study is concern regarding external validity or lack of generalisation. However, since this study is exploratory and a triangulation approach is adopted, the use of the case study serves as a complementary method to investigate the relevant aspects of BSC and to support the results of the survey.

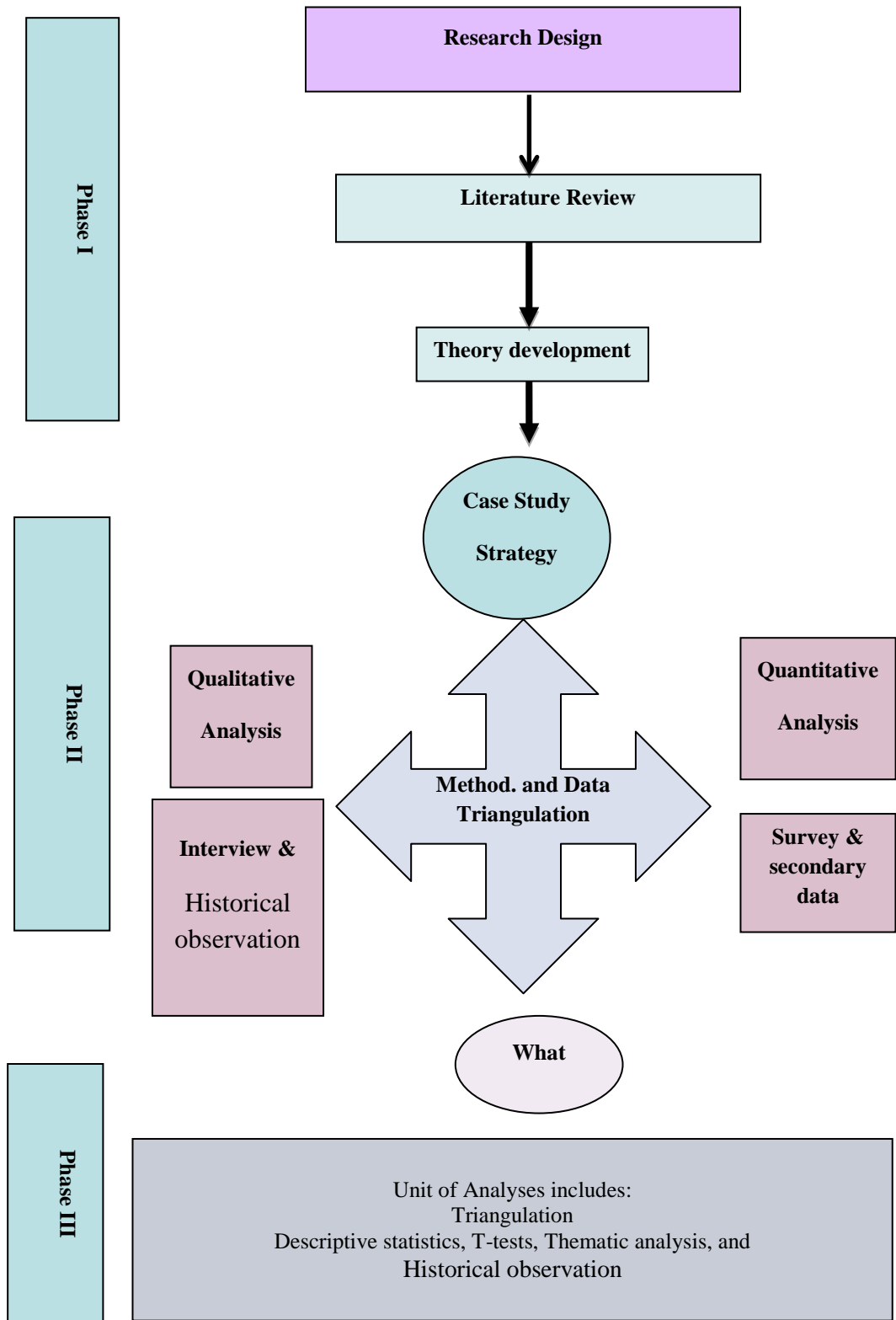
Yin (2003) suggests five components of a case study approach, which are problem definition, research design, data collection, data analysis, and report presentation. These elements are then used to establish the specific criteria and a particular proposal needed to conduct case study. In chapter 1, the researcher defines the research problem. In what follows, the researcher explains the research design, the data collection methods, and the data analysis tools.

5.5 The research design of this thesis

The research design is defined by Yin (2003) as a logical plan and the procedures needed to answer the initial research questions. Consequently, the research design helps to determine what methods are going to be used, what data are required to be collected, what the nature of the data analyses are, and how these components can answer the research question.

Figure 5.1 presents the research design phases used in the entire process of this study. The research design of this thesis includes literature review, hypotheses development, and a primary case study including questionnaire survey, secondary data, interviews, and the unit of analysis. The subsequent sections discuss the research design in more details.

Figure 5.1 presents the three phases of the research design



In phase I, the researcher revised the literature review and developed BSC hypotheses, as presented in chapters 2 and 3, respectively. In phase II, data triangulation is applied and is discussed in the current chapter. In phase III, the unit of analysis is applied using statistical descriptive analysis. Specifically, t-tests and thematic analysis are used to examine the research hypotheses. Consequently, this phase triangulates different data analysis tools.

In this exploratory study, data triangulation tools are applied. This approach triangulates quantitative and qualitative tools. Hence, data triangulation includes questionnaires, pre- and post-BSC implementation data and secondary data; semi-structured interviews; and the researcher's field notes of personal observations and conversations.

5.5.1 Methodological triangulation

The triangulation method involves combining research strategies; usually qualitative and quantitative methods. Such an approach is common in business and social studies. The quantitative methodology uses numerical data to establish facts about the level of the employees' and managers' understanding of the BSC perspectives. This method enables the researcher to examine the suggested hypotheses and the framework in Chapter 3. This method used in this thesis is primarily based on questionnaires, which provide both advantages and disadvantages depending on the phenomenon under study. Since quantitative methodology is unable to consider the individuality of human experience, the researcher fills this gap by applying qualitative methodology. Qualitative methodology focuses on obtaining deep and meaningful understanding from small groups, which fulfil certain criteria set out by the researcher (McCarthy and O'Sullivan, 2008). The researcher works with relatively few

respondents, who are intensively studied and thereby a significant amount of detailed information is generated. A disadvantage of this approach is that it reduces the ability to generalize, since the response is neither systematic nor standardized.

In this study, the data collected from the qualitative, semi-structured interviews, are utilised to reinforce and complement the data from quantitative, questionnaires. The output of the questionnaires and the secondary data are checked for congruency during the interview. Schneider et al. (2003) and Macnee and McCabe (2008) argue that complementary findings in a study make a more valid contribution to theory and knowledge development, enhance diversity, and enrich the understanding surrounding the study's objectives and goals. Thus, our research questions will be answered by both quantitative and qualitative methodologies.

In this study, in order to obtain both an in-depth understanding and to derive quantifiable information from a broader population, both qualitative and quantitative methods are used to evaluate the employees' understanding of the concept and strategy of BSC and its effective implementation with respect to:

1. Quality of care perspective
2. Medical care perspective
3. Employee perspective
4. Financial perspective
5. Education and research perspective (learning and growth).

Finally, the triangulation method aims to review how effectively the five perspectives of BSC above are linked to the business strategy at KFSH-RC, in KSA.

5.5.2 Data Triangulation

As explained above, data triangulation is defined as the use of multiple sources of data to obtain differing views from different social layers about a situation in a single study. In this study, data are collected from various interviews, questionnaires and from secondary sources.

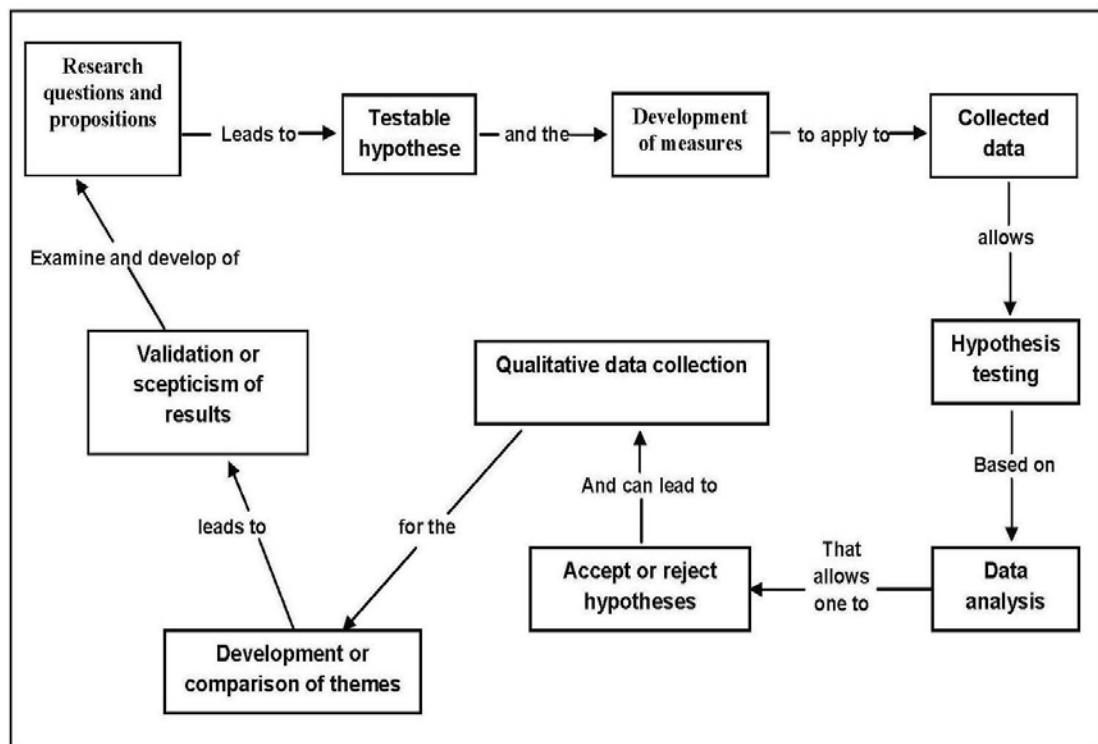
5.5.2.1 Ordering, timing & weighting the research design phases

This section states the timing, ordering and weighting of methods within the current study as stated in **Figure 5.2**. In the mixed methods, the first question is when the data will be collected and whether quantitative and qualitative data will be collected simultaneously or sequentially? Johannes and Mauri (2012) show that some studies have collected and analysed both qualitative and quantitative data at the same while others have collected and analysed data. In the current study, qualitative data is used to explain, in more detail, quantitative results. Thus, the researcher uses two separate data collection phases. The first is a quantitative instrument that includes data collected by questionnaires and secondary sources. Later, the researcher applies the qualitative used semi-structured interview to obtain a more detailed picture of the implementation of the BSC in the KFSH. **Figure (5.2)** shows the ordering process of the research design.

The second question that can be raised is related to how researcher weight the relative importance of quantitative and qualitative data. The literature generally uses capital letters for the dominant approach (QUAN or QUAL) and lowercase letters for the secondary, less dominant methodological approach (qual or quan) (Johannes and Mauri, 2012). Researchers may choose to give equal weight to both methods, and as such can be presented as (QUAL/QUAN). Others may give unequal weight such as (QUAN/qual), which gives dominance to quantitative data. Johannes and Mauri (2012)

suggest that the weighting of methods primarily depends on the type of research question(s). In the current study, the research questions and data analysis are given the same weigh (QUAN/QUAL). In addition, both QUAN and QUAL data are independently analysed thus QUAN/QUAL meets the research objectives. In the current study, the researcher also transforms QUAN factors into QUAL themes. For comparison, the researcher consolidated the themes and factors that emerged through both analyses and used QUAL data to provide nuance to the consolidated themes/factors as explained by Johannes and Mauri (2012). The following sub-sections discuss the methods of data collection.

Figure 5.2 shows the ordering process of the research design



Source: Johannes and Mauri (2012)

5.5.2.2 Questionnaire

The questionnaire is divided into two sections (see the questionnaire in **Figure A1** in the Appendix). The first section collects respondent demographic information including their position in the hospital, gender, age, nationality, education level, last qualification, and tenure of employment. The second section asks the respondents to rate their level of agreement with statements presented in the questionnaire using a five point Likert scale. These scale ranges from statement 5 “strongly agree” to statement 1 “strongly disagree”. The Likert scale is a subjective scoring system that allows a person being surveyed to quantify his/her preferences. According to Lowenthal (2001), the Likert scale is an approximation of an interval scale that is commonly used in social and business research. In the current study, the researcher applies the most familiar Likert scale with 5 points as in **Table 5.4**. In the questionnaire, each question of the survey gives five options to the respondent (1) Strongly disagree, (2) disagree, (3) Neither agree nor disagree, (4) Agree, (5) Strongly Agree.

Table 5.4 The five-point Likert scale

1	2	3	4	5
Strongly disagree	Disagree	Neither agree Nor disagree	Agree	Strongly agree

Source: Bryman and Bell, 2008

In the survey, the scale is used to obtain data in various dimensions regarding to employees' understanding of the five perspectives of BSC in relation to the business strategy at KFSH-RC. The questions are derived from the literature review and are divided into subgroups. Sekaran (2003) recommend that researchers to consider the following issues when designing of the questionnaire:

1. The wording of the question.

2. The layout and the appearance of the questionnaire.
3. The categorising, scaling, and coding of the variables after the receiving of the questionnaire.

The questions were therefore carefully chosen, guided by theories related to the concept, measures, and perspectives of BSC. The questionnaire was also designed to address how clinical and non-clinical staffs perceive BSC as a strategic tool.

According to Zikmund (2003), the advantage of a questionnaire with a multiple choice format is that it facilitates data collection and comparison between answers. In order to avoid misunderstandings and bias, terminology that is familiar to KFSH-RC employees was used and leading questions were excluded from the questionnaire. However, the disadvantage of using simple, understandable terminology is that responses become more generic. To ensure that all questions on the survey were read and completed, a pilot test was undertaken.

Stratified random sampling was used to select prospective respondents from the study population to take part in the quantitative phase of the research. Each randomly selected individual received an invitation to participate in the study in person from the researcher. This invitation included a description of the purpose of the study and a copy of the questionnaire questions (**See Table A.2 in the Appendix**). During this first meeting, the researcher also gave assurances of confidentiality to encourage participants to answer the questionnaire truthfully and without fear of repercussions. The invitation also included an informed consent form, which is discussed further in detail in the ethical issues section. The respondents are asked to complete the survey questionnaire at their own leisure. Once the completed survey was received, no notation was made on the survey form that could link the identity of

the respondents to the individual surveys. This precaution was taken to preserve the confidentiality of the respondents.

The questionnaire was distributed to selected members in different departments in the KFSH-RC. The sample was stratified to include both clinical and non-clinical departments. The participating departments were medical departments, nursing departments, patient departments, the research centre, the human resource department, the operational department, and the financial department. This process took place from June, 2011 to August, 2011.

To improve the response rate, the researcher applied many techniques including regular meetings and presentations to the respondents about the importance of the study. Guidelines on how to answer the questions were also issued, to ensure that misunderstanding was not a cause for incompleteness. The researcher also sent reminders directly to both managers and employees when possible. A number of questionnaires were sent by post with a cover letter and hand-addressed postage paid return envelope, so that respondents were not discouraged by cost.

5.5.2.3 Secondary data

In this part the researcher follows the procedures suggested by Davis and Albright (2004) to examine the changes in the performance measures. By following this procedure, the researcher determines if a change in performance indicators took place after the implementation of the BSC. Since the BSC in the KFSH was first implemented in January 2006 the data collection covers an eight year period: the pre-implementation period is from 2002 to 2005 and the post-implementation period is from 2007 to 2010. The secondary data is collected to examine the changes in the performance measures in the KFSH following the implementation of the BSC. This approach allows us to

evaluate the performance of the KFSH at the pre- and the post- implementation of the BSC at the KFSH.

This unique approach is the first time to apply on the literature of the BSC in particular in measuring the performance in the healthcare organisation. The researcher collected secondary data from the published annual reports from 2002 to 2010. In addition, the researcher collected accounting data from the internal documents.

5.5.2.4 The semi- structured interview

The qualitative phase of this study applied a semi-structured interview. The researcher conducted interviews with public-sector employees from different organisational levels, namely top management, middle management and entry-level employees. Semi-structured interviews can be very helpful to an exploratory study. Such interviews can determine what is happening and seek new insights not given by a questionnaire (Saunders et al. (2009), (Robson, 2002). Tashakkori and Teddlie (2003) argue that semi-structured interviews can be used to explore and explain themes that have emerged from the use of a questionnaire. Bryman and Bell (2008) explain that this type of interview can also be used as part of mixed methods research, as a means to validate findings from questionnaires. Saunders et al. (2009) suggest that the main goal of this interview seeks to establish an in-depth understanding of the experiences of the respondents and the meanings within their accounts of a particular action, process, or event.

A mixture of open-ended and close-ended questions concerning the employee's perception of BSC was included in the semi-structured interview. All questions were developed based on the literature review and were related to the implementation of BSC in public healthcare organizations (see **Table A.3 in the Appendix**).

The interview style was flexible, allowing for an open dialogue that could extend beyond the themes set by the interview schedule. Following Broom (2005) recommendations, the researcher established open environment in which the interviewee could reflect on issues related to the interview schedule. In addition, it was hoped that this open environment would help generate new themes that may have been overlooked by the researcher. A draft of the interview schedule was reviewed prior the interview. In addition, some of pilot interviews were conducted to examine whether the questions were likely to retrieve the data that the researcher needed. The interviewer used a recording system with the permission of the interviewees to facilitate transcription of the data for analysis.

On a practical level, the researcher began each interview by introducing himself and provided a written summary of the study. The researcher made sure that the respondents fully understood the study that they were participating in before proceeding. In addition, permission to conduct the research with hospital staff / personnel was obtained from the human resources departments of the KFSH-RC.

The interview protocol used a semi-structured format in which the interviewer was permitted to ask follow-up questions to obtain additional or supplementary information based on the interviewee's responses.

The data collection procedure for the interviews was initiated with a solicitation letter sent to prospective interviewees identified through stratified sampling methods. After accepting the solicitation, a mutually agreeable time and place was established for the interview, with consideration given to the privacy of the interview location and the convenience to the interviewees. The researcher acted as interviewer, and followed the interview protocol of posing the same questions to each interviewee, with follow-up questions based on the response of the interviewee. The interview time

was scheduled for approximately 20-40 minutes. The interview process followed the recommendations of Kvale and Brinkmann (2008) for sequencing interactions. The interviewees were given a written assurance of confidentiality, and were not identified by name on the recordings or transcripts of the interviews.

At the conclusion of the interview, the researcher conducted a debriefing by asking if the interviewee had any additional information to add. In addition, the researcher compiled field notes with information about observations of the interviewees.

5.5.3 Ethical considerations

The researcher guarantees that this study will not pose any risk of physical or psychological harm to the respondents or to KFSH in either the qualitative or quantitative phases. The main risk to the participants in the study is a breach of confidentiality from the disclosure of any adverse comments or statements made by participants concerning employers. The participants are informed that the interviews, recordings, and transcripts will be kept confidential and will not be made part of the thesis. The approach applied to secure confidentiality was to use code numbers for participants throughout the study. This code number is not linked to the identity of the participants. In addition, the completed survey questionnaires and the recordings and transcripts of the interviews are kept in a secured location accessible only to the researcher.

The participants are also informed that particular answers will not be presented in a way that can be traced back to the individual source in the study. All references that could link the names of the interviewees to the information provided are deleted from recordings and transcripts to protect the confidentiality of the participants. The

signature on the consent form only acts to make the consent document valid and will not be used to identify individuals in any other way.

According to Bryman and Bell (2008), objectivity measures the extent to which the researcher's own values affect the conducted study. The researcher, being an ex-employee of KFSH-RC, has been exposed to the inner workings of the organization for more than eight years and may therefore be subject to preconceptions or bias. To counteract this, the researcher focused on maintaining a neutral point of view when collecting empirical data, assessing and analysing data, and when presenting the data. Data were collected specifically for this research. When presenting the findings, the researcher tried to maintain a neutral tone in the language used and gave proportionate space for diverging viewpoints in order to avoid undue weight. To the best of the researcher's ability, the researcher tried to maintain a neutral point of view, and to pronounce facts, including facts about opinion but without asserting the opinion.

Chapter 6: Results

6.1 Introduction

This chapter presents the data in a systematic way in accordance with the mixed methodological approach, as described and discussed in the methodological chapter. The triangulation approach presented comprises both quantitative and qualitative data. The quantitative data, in combination with the secondary data ('strategic map' and the 'annual report of 2002-2010') aims to establish the 'reality' of "what is going on" in order to depict the situation at KFSH. However, the qualitative data aims to understand the perception of the employees in relation to BSC, its use and its success rate. The primary data of the quantitative phase uses questionnaires to investigate the level of understanding BSC and its linkages. Secondary data are collected to examine the performance of KFSH following the implementation of BSC. In the qualitative phase, two different datasets are also applied. These are the semi-structured interview and the researcher's observations.

6.2 The pilot study

The advantage of conducting a pilot study is to identify any weaknesses of the data collection methods before rolling them out to the larger study population. Thus, two months prior to the actual data collection, a pilot study was conducted. The main goal of the pilot study was to evaluate the level of content validity and to ensure that the instrument achieves its objective.

Ticehurst and Veal (2000) list reasons for the pilot study which are: to test the questionnaire wording and layout; to test the orders of questions; to determine the level of respondent's awareness; and to check the language. The pilot study was distributed among the same targeted population intended for the main study. Fifty drafts of the

questionnaire were personally distributed to employees selected to take part in the pilot study. Selected employees were from most layers of the organisation, from top management levels to lower management levels. A total of 35 completed questionnaires were returned, representing a response rate of 70 per cent. Based on the responses and feedback obtained, the made some modifications to the questionnaire and a final draft of the questionnaire were produced.

Patton (2002) suggests that pilot tests for interviews should involve ensuring that the data obtained from the interviews is capable of content analysis. Therefore, in this study the researcher interviewed two employees as a pilot to confirm the effectiveness of questions at obtaining the information necessary to answer the research questions. Then, the data were analysed using the coding system that give a number for each respondent and a thematic approach. The major themes were defined as the culture, BSC generations, weighting, communications, management information systems, and the linkage.

6.3 Population and sample of the study

Sekaran (2003) defines the population as the group of people or things of interest under investigation by the researcher. In the current study, the target population includes the managers, supervisors, leaders, clinical staff, nursing staff, and technicians from different nations and cultures. Due to the nature of the mixed methods approach, the quantitative and qualitative phases of the study used same sampling methods. Both phases of the study used stratified random sampling of the groups of KFSH employees listed above. Clinical and supervisory staffs were included in this sample because they often have leadership responsibilities.

According to Saunders et al. (2009) stratified random sampling is a modification of random sampling in which the researcher divides the population into two or more relevant and significant strata based on one or a number of attributes. A random sample is then produced from each of the strata. Dividing the population into a series of relevant strata means that the researcher ensures that each of the strata is represented proportionally within his sample. The sample is stratified based on the proportion size of employees in each department. This aims to ensure correct representation within the sample. Thus, each department is represented equally in the sample.

6.3.1 Quantitative sample size

The survey was conducted on employees of KFSH based on their job role and the proportion of those in that role in the total population. **Table 6.1** reports the distribution of staff based on their categories. A total of 1000 questionnaires were distributed among the staff according to the proportion of the group from the total population. The number of questionnaires distributed to each group/category is shown in **Table 6.1**. Of the 1000 questionnaires sent out, 400 were completed and returned.

Table 6. 1 The distribution of KFSH staff and the number of questionnaires delivered

Departments	Consultants/ Clinicians	Nurses	Technicians	General staff	Admin staff	Total
The distribution of staff as in 2006 (n)	561	1819	1185	2100	1787	7452
The % of staff in each department from the total population	8%	24%	16%	28%	24%	100%
Number of questionnaires delivered per department (n)	75	244	159	282	240	1000

6.3.2 The quantitative response rate

The most important feature for a sample is that it adequately represents the target population. It is important that the research sample is sufficiently large to give the necessary confidence in our result. Therefore, as showing the table above, 1000 questionnaires were distributed to secure a high response rate. The researcher also applied many techniques to ensure that responses were collected as efficiently as possible.

To increase trust, and therefore improve the chances of participant cooperation, the researcher showed the ethical approval document issued by the University of Bradford to each participant when conducting this research. In addition to this, the researcher explained to all participants that they or the KFSH as an organisation could not be harmed as a result of their participation. The researcher established a trust with the respondents and increased interest, awareness and enthusiasm by stating how the results would be used to help the respondents and their departments.

The questionnaire booklet was designed with clear colours to make the questionnaire more readable and attractive. In addition, a request to participate in the survey was presented on the first page of the questionnaire book. In this request, the researcher introduces himself, gives a brief of the study and the title of the thesis, and identifies the sponsoring body. The researcher also used the opportunity to reiterate the time frame required for the response, the potential risks resulting from participation; the importance of the study to the KFSH; and the contact details of the research for feedback.

A postal follow-up reminder was also used to enhance the questionnaire response rate, along with a once weekly telephone call. This process resulted in the return of 220 questionnaires in the first month, 150 questionnaires in the next month,

and 30 questionnaires in the last month. In total, 400 questionnaires were received from different departments.

Table 6.2 shows that of the total 1000 distributed questionnaires 400 were returned and of these 70 were excluded because they were deemed to be useless/ineffective. In general, the causes of non-response include: refusal to respond, or contact failure. The most common reason for non-response was refusal to participate or be involved in the survey, without offering a reason. The researcher excluded 70 questionnaires because many of them were incomplete and missing demographic information. The number of refusals was not significant compared with the number of valid questionnaires. Hence, the quality of our analysis is not affected. After exclusion, the total number of useful questionnaires was 330 (33%).

The number of responses collected from each group ranged from 32 to 118 which represents 10 to 36%. **Table 6.2** shows that the general staff represent 36% of the collected and usable questionnaires, followed by nursing and administrative staff, 29% and 15%, respectively. The distribution of response rates in **Table 6.2** matches the percentage of staff from the total population in **Table 6.1**. For instance, the general staff have the highest response rate and are also the most highly represented group. The distribution of the response rate matches the portion of staff from each category in the total population; hence, it adequately represents the target population.

Table 6. 2 Response rates of distributed questionnaires

Departments	Consultants / Clinicians	Nursing staff	Technicians	General staff	Admin staff	Total
Eligible questionnaire Distributed	80	322	140	365	93	1000
Collected	400					400
Non-usable	70					70
Completed and Useful	32	97	35	118	48	330
Response rate	10%	29%	11%	36%	15%	33%

$$\text{Response rate} = \frac{\text{Number of completed questionnaires with responding units}}{\text{Number of eligible respondents in the sample}}$$

$$\text{Response rate} = \frac{330}{1000} = 33\%$$

Table 6.3 presents the mathematical method for calculating the response rate.

Table 6.3 Presents the mathematical method for calculating the response rate

Eligibility requirement	
Total number of sampling units	1000
Total number of responses	400
Total number of eligible responses	330
Total number of ineligible responses	70
Percentage of eligible responses	0.82
Total number of non- respondents	670 ^{††}
Expected percentage of eligible responses in Non-respondents	552.75 ^{†††}
Response Rate	37.38% ^{††††}
[†] is calculated as 330/400, ^{††} is calculated as 1000-330, ^{†††} is calculated as 670*(330/400), and ^{††††} is calculated as (330*100)/ (330+553).	

6.3.3 Employee demographic characteristics

Table 6.4 reports the key demographic characteristics of the survey respondents. Administration (30%) and nursing (26.4%) staff represent more than half of the sample, which is similar to their distribution in the 2006 annual report, the year BSC was introduced in KFSH. Similarity between employee distribution in the report and our analysis, lends credibility to the correct allocation of questionnaires to representative groups. **Table 6.4** also shows that 58% of the sample was female, giving a fairly equal gender distribution. We categorised job roles into senior level, middle level, and junior level. It is clear in **Table 6.4** that the junior level dominated the sample, with a 59.4% representation. We also classified staff by nationality. Saudis (42.1%) followed by Asians (36.7%), were the most common nationalities in the sample. **Table 6.4** also shows that 38.5% of the respondents were between 30 to 39 years old, and 30% of the respondents were between 40-49 years old.

The distribution of clinical staff; doctors, nurses, and paramedical, shows that they make up the majority of the sample (69.6%). The distribution of non-clinical staff; top management, middle management, and support management, shows that support management staff are the most abundant at 45.8% of the sample, followed by middle and top management, respectively. The sample also shows 53.6% of the sample holds a first degree, 22.7% hold a two-year diploma, and the rest hold higher degrees. The length of stay distribution shows that 31.3% of the respondents have experience between 21 and 25 years, 28% of the respondents have experience between 11-15 years, and 25.8% of the respondents have experience between 16 and 20 years.

Table 6.4 The demographic specifications

Domain	Category	Frequencies (F) as in 2006	%
Departments	Clinical staff	73	22.4
	Nursing staff	87	26.4
	Supportive staff (Technicians & Paramedics)	35	10.6
	Administration staff	98	29.7
	Managers	36	10.9
Gender	Female	191	58
	Male	139	42
Clinical / Non-Clinical staff	Clinical	179	54
	Non-clinical	151	46
Job role	Senior level	40	12.1
	Middle level	94	28.5
	Junior level	196	59.4
Nationality	Saudi	139	42.1
	Middle East	31	9
	Asian Countries	121	36.7
	Others	39	12.2
Age	20-29	47	14.2
	30-39	127	38.5
	40-49	99	30
	50-59	57	17.3
Qualification	PhD	25	7.6
	Master Degree	53	16.1
	First Degree	177	53.6
	Diploma	75	22.7
Length of employment	5-10 Years	49	14.8
	11-15 Years	93	28.2
	16-20 Years	85	25.8
	21-25 Years	103	31.3

Table 6.4, conveys the message that the majority of staff are from Saudi Arabia (local nationals) (F=139; 42%) followed by staff from Asian countries (F=121; 37%). Employees from the Far East make up 12.2% (F=39) of the sample, whereas only 9% (F=31) are from the Middle East.

6.4 Data analysis used

6.4.1 Quantitative analysis

The data analysis phase included data preparation, data coding, and data analysis. As part of the data preparation, the researcher excluded non-useful questionnaires from the analysis, for the reasons given above. Missing data were coded by "99" indicating that the respondents skipped a section for one of the following reasons: (i) the respondent refused to answer the question; (ii) the respondent did not know the answer or did not have an opinion; (iv) the respondent may have missed a question by mistake; and (v) the respondent did not follow the instructions (e.g. the respondent ticked multiple answers to the same question).

In the second, the researcher used individual labels for each variable and the codes associated with each of them in SPSS (Version 19). **Table 6.5** shows the labelling and coding system applied in the questionnaire.

As in **Table 6.5**, the quantitative data were recorded using numerical codes by using SPSS version 18.0. This enabled the researcher to enter data quickly into the software using the numeric keypad while introducing fewer errors. Consequently, the survey questionnaire created a systematic coding frame for the data obtained from the respondents. For instance, the "Strongly agree" statement of the Likert Scale was recorded in the system using "5", males using "1" and females using "0". The preliminary data was then analysed to develop descriptive statistics about the sample, from the demographics section of the questionnaire.

As previously stated, one of the main objectives of the questionnaire is to explore the level of understanding of the BSC perspectives and the linkages between them. In addition, the validity and the reliability of the questionnaire were also examined at this stage. The analyses included the Chi square test and the one-tail t-test

for one group to determine statistical independence. Significance was set at the conventional alpha level of 0.05.

Table 6. 5 Labelling and coding system in SPSS software

Label	Category	Code in SPSS
BSC perspectives and the linkage	Strongly agree	5
	Agree	4
	Neither agree Nor disagree	3
	Disagree	2
	Strongly disagree	1
Departments	Clinical staff	1
	Nursing staff	2
	Supportive staff	3
	Administration staff	4
	Managers	5
Gender	Female	0
	Male	1
Clinical / Non-Clinical staff	Clinical	1
	Non-clinical	0
Job role	Senior level	3
	Middle level	2
	Junior level	1
Nationality	Saudi	10
	Middle Eastern	11
	Asian Countries	12
	Others	22
Age	20-29	Takes No. from 20-29
	30-39	Takes No. from 30-39
	40-49	Takes No. from 40-49
	50+	Takes No. more than 50
Qualification	Post Graduate	3
	Bachelor	2
	Less than Bachelor	1
Length of Stay	11-15 Years	Takes No. from 11-15
	16-20 Years	Takes No. from 16-20
	21-25 Years	Takes No. from 21-25

The parametric Chi square "goodness of fit" test was used to examine the chance variation in the distribution of responses between the categories of a single variable. In addition, the researcher used one-way analysis of variance (ANOVA) for comparing more than two independent groups. If significant differences, were found the post-hoc Scheffe test was applied to define the differences between groups and correct for multiple comparisons.

6.4.2 Qualitative analysis

For the qualitative phase, the thematic analysis approach was applied to allow the researcher to report the experiences of the study participants. Braun and Clarke (2006) define thematic analysis as a method for identifying, analysing, and reporting patterns (themes) within data. Braun and Clarke (2006) suggest that a theme captures the data in relation to the research question, and represents some level of patterned response or meaning within the data set. Themes or patterns can be identified in one of two ways in thematic analysis: in an inductive or 'bottom up' way (e.g., see Frith and Gleeson, 2004), or in a theoretical or deductive or 'top down' way (e.g., see Hayes, 1997, Boyatzis, 1998).

In the deductive approach, thematic analysis would tend to be driven by the researcher's theoretical or analytic interest in the area, and is thus more explicitly analyst-driven (Braun and Clarke, 2006). This analysis tends to provide more a detailed analysis of some aspects of the data more than others. The method merely organises and describes the data set in rich detail. It also interprets various aspects of the research topic. The thematic analysis is often considered as 'the' method of analysis. Rubin and Rubin (1995) claim that in thematic analysis, the researcher discovers themes and concepts embedded throughout interviews. Thus, it may help themes which been

overlooked by the researcher to emerge. The main advantage of thematic analysis is that it is a flexible and effective analysis method for interview data as it does not ascribe to any pre-existing theoretical framework (Attride-Stirling, 2001), (Tuckett, 2005), (Braun and Clarke, 2006). For these reasons, the researcher believes that it would be beneficial and suitable for this study and thus applied it herein.

The process of thematic analysis includes many stages that start when the researcher begins to notice and look for patterns of meaning and for issues of potential interest in the data. This pattern spotting process may begin during data collection stage. Analysis involves a constant moving back and forward between the entire data set, the coded extracts of data that you are analysing, and the analysis of the data that you are producing. Braun and Clarke (2006) summarizes the phases and the benefits of the thematic analysis, as represented in **Table 6.6** and **6.7**, respectively.

Table 6. 6 Phases of thematic analysis

Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Source: Braun and Clarke (2006)

Table 6. 7 Benefits of thematic analysis

Flexibility.
Relatively easy and quick method to learn, and do.
Accessible to researchers with little or no experience of qualitative research.
Results are generally accessible to educated general public.
Useful method for working within participatory research paradigm, with participants as collaborators.
Can usefully summarise key features of a large body of data, and/or offer a 'thick description' of the data set.
Can highlight similarities and differences across the data set.
Can generate unanticipated insights.
Allows for social as well as psychological interpretations of data.
Can be useful for producing qualitative analyses suited to informing policy development.

Braun and Clarke (2006)

6.5 Reliability, validity and ethical considerations

6.5.1 Reliability

A considerable volume of literature has been produced on the conduction of social research, with particular attention paid to the reliability and validity of both qualitative and quantitative methodologies. Bryman and Bell (2008) explain that reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions. In addition, the reliability analysis procedure calculates a number of commonly used measures of scale reliability, and also provides information about the relationships between individual items in the scale that determine the extent to which items in the questionnaire are related to each other.

According to Sekaran (2003), Alsadhan (2007) and Bryman (2008) the reliability of an instrument refers to the stability and the consistency with which the instrument measures the concept, and helps to assess the quality of a measure. Bryman (2008) breaks down reliability into three factors: i) "stability" which entails asking whether a measure is stable over time; ii) "internal reliability" which focuses on whether

the indicators that make up the scale are consistent; and iii) "inter-observer consistency" which can arise when there are many observers or many categories.

The reliability of qualitative research is concerned with the ability of different researchers to make the same observations (coding) of a given phenomenon when the observation is conducted using the same method and procedure. Researchers can improve the reliability of their qualitative research phase by standardizing data collection methods and documenting changes or progress regularly.

In quantitative research, the most commonly used measure for internal consistency or reliability is Cronbach's Alpha. Cronbach's alpha is a reliability coefficient that measures inter-item reliability or the degree of internal consistency/homogeneity between variables measuring one concept (Kline (2005). This coefficient varies from 0 to 1 and a value of 0.6 or less generally indicates unsatisfactory internal consistency (Malhotra, 1998) with a score of 0.9 on the Cronbach's alpha scale means that 90% of the variability in the observed score is true and 10 per cent is due to error. In the social sciences, the acceptable reliability estimates range from 0.7 to 0.8 (Nunnally and Bernstein (1994). Hair et al. (2010) suggest that a coefficient value of 0.7, or higher, indicates good reliability, while a value between 0.6 and 0.7 indicates acceptable reliability. Field (2009) considers that the value of 0.80 is seen as an acceptable value for Cronbach's alpha, with substantially lower values indicating an unreliable scale.

Cronbach's alpha coefficients were produced for the five BSC perspectives and the linkage between them obtained from the questionnaire at the KFSH. A total of 67 items are used to measure the BSC perspectives and the linkages. All the items used in BSC perspectives are measured on the 5-point Likert scale. **Table 6.8** presents the reliability analysis with item-total correlations and Cronbach's Alpha coefficients for

BSC perspectives and linkages. As shown in **Table 6.8**, all items are associated with high Cronbach's alpha scores, ranging from 0.767 – 0.892. These values are comfortably above the generally accepted lower limit of 0.6.

Table 6. 8 Reliability test results using Cronbach's Alpha

BSC perspectives	N	Cronbach's Alpha
Strategic Knowledge	330	0.825
Financial Perspective	330	0.767
Customer Perspective	330	0.883
Internal Process Perspective	330	0.841
Learning and Growth Perspective	330	0.892
Linkage Perspective	330	0.890
Employees Understanding	324	0.836

Additionally, item-total correlation values for all items are greater than 0.3, as shown in **Tables from 6.9 to 6.15**. This outcome is a very satisfactory result as suggested by Nunnally and Bernstein (1994). From these results, it can be concluded that the constructs are deemed to have high internal consistency and adequate reliability for the next stage of validity analysis.

Table 6. 9 Reliability analysis for strategic knowledge

Strategic Knowledge	Total Correlation	Cronbach's Alphas
		0.825
K1	0.65	
K2	0.3	
K3	0.61	
K4	0.64	
K5	0.67	
K6	0.6	
K7	0.68	
K8	0.61	
K9	0.58	
K10	0.59	
K11	0.33	
K12	0.54	
K13	0.52	

Table 6. 10 Reliability analysis for the financial perspective

Financial Perspective	Total Correlation	Cronbach's Alphas
		0.767
F1	0.68	
F2	0.65	
F3	0.63	
F4	0.56	
F5	0.59	

Table 6. 11 Reliability analysis for the customer perspective

Customer Perspective	Total Correlation	Cronbach's Alphas
		0.883
C1	0.64	
C2	0.82	
C3	0.81	
C4	0.72	
C5	0.77	
C6	0.68	
C7	0.74	
C8	0.75	

Table 6. 12 Reliability analysis for the internal process perspective

Internal Process Perspectives	Total Correlation	Cronbach's Alphas
		0.841
I1	0.79	
I2	0.80	
I3	0.73	
I4	0.72	
I5	0.78	
I6	0.71	
I7	0.54	

Table 6. 13 Reliability analysis for the Learning and growth perspective

Learning and Growth	Total Correlation	Cronbach's Alphas
		0.892
Le1	0.76	
Le2	0.55	
Le3	0.68	
Le4	0.62	
Le5	0.84	
Le6	0.88	
Le7	0.85	
Le8	0.86	

Table 6. 14 Reliability analysis for the linkages

Linkage	Total Correlation	Cronbach's Alphas
		0.890
Link 1	0.72	
Link 2	0.86	
Link 3	0.86	
Link 4	0.86	
Link 5	0.87	

Table 6. 15 Reliability analysis for employees' understanding of the perspectives

Employee Understanding	Total Correlation	Cronbach's Alphas
		0.836
Emp1	0.55	
Emp2	0.55	
Emp3	0.54	
Emp4	0.55	
Emp5	0.52	
Emp6	0.50	
Emp7	0.55	
Emp8	0.62	
Emp9	0.61	
Emp10	0.06	
Emp11	0.18	
Emp12	0.32	
Emp13	0.31	
Emp14	0.20	
Emp15	0.57	
Emp16	0.57	
Emp17	0.60	
Emp18	0.63	
Emp19	0.60	
Emp20	0.53	
Emp21	0.51	

6.5.2 Validity

According to Gregory (1992), the measure, the concept, and the question is valid if it measures what it is supposed to measure, and does so cleanly, without accidentally including other factors. Golafshani (2003) describes validity in quantitative research as construct validity, which means that the concept, indicator, notion, or hypothesis, is consistent with the concept. According to Punch (2009) and Bryman (2008), the validity of a measure describes the extent to which a measure accurately represents the concept it claims to measure. Ryan and Bernard (2000) assert that researchers use two types of validity in social science research; internal validity and external validity. Further sub-

types of validity can be added under these headings, such as the face validity; concurrent validity; predictive validity; construct validity; and convergent validity. External validity defines the generalizability of the measure and is concerned with the degree to which the research's conclusions or findings can be applied to the real world (Punch (2009)).

According to Eby (1993) and Punch (2009), there are three suggested methods for examining internal validity. These are content validity, criterion-related validity, and construct validity. Content validity is concerned with the relevance and representativeness of questions, such as individual questions in a questionnaire, to the intended setting. Content validity can be achieved through conducting a pilot study with people who are similar to the intended study participants. In our study for instance, the intention is to consult people with BSC experience in the healthcare services. Such relevance can be supported by literature reviews and documentary evidence, where available.

According to Eby (1993), criterion-related validity is raised when a questionnaire can be compared to other similar validated measures of the same concept or phenomenon. Construct validity involves demonstrating relationships between the concepts under study and the construct or theory that is relevant to them. Rowley (2002), Yin (2003) relates construct validity to establishing correct operational measures for the theoretical concepts being investigated, by linking the data collection questions and measures to research questions and hypotheses.

There are several ways of demonstrating construct validity, one of which is factor analysis. Factor analysis refers to a number of statistical procedures used to determine characteristics that relate to each other. Factor analysis is particularly useful

for examining the relationships between large numbers of variables, disentangling them and identifying clusters of variables that are closely linked together.

The researcher applied factor analysis using the procedure in SPSS software. The researcher also applied The Kaiser-Myer-Oklin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Field, 2009) to examine relationships between variables. The KMO is known as one of the best measures for determining the suitability of a set of data for subsequent factor analysis (Field, 2009). If the value of KMO is greater than 0.5, this means that using the factor analysis is valid (Field, 2009, Hair et al, 2010)

The estimation of validity is presented in **Table 6.16**. The KMO value for measurement of sample adequacy (MSA) in the second column gives the computed KMO value for each domain equal or above the acceptable level of 0.5 (Field, 2009). Factor loadings are higher than 0.5 (in the third column), as recommended by Field (2009) and Hair et al. (2010). More than 50% of the variance of each set of BSC perspectives is explained by its respective domain. In addition, all the domains are "uni-factorial" and therefore, have construct validity.

AlQurashi (2009) and many other researchers summarise steps in construct validity that are relevant to the qualitative study in KSA. Case study protocol questions first have to be designed and asked during the interview sessions. The respondents should be selected based on a particular criteria and should be free to participate in the parts of the interview related to the understanding of BSC (Rowley, 2002) and (Yin, 2003). Second, a detailed record should be kept, using different methods to track the evidence (Rowley, 2002) and (Yin, 2003). Third, construct validity is secured by using multiple sources of evidence (triangulations) such as in-depth interviews, questionnaires and documents.

Table 6. 16 Construct validity using the factor analysis technique

Results of Factor Analysis BSC Perspectives					
BSC perspectives	N	KMO	Factor Loading	Eigen values	% VARIANCE EXPLAINED
Strategic Knowledge	330	0.758	0.532-0.828	4.32	67.59
Financial Perspective	330	0.644	0.526-0.753	2.23	64.27
Customer Perspective	330	0.864	0.645-0.814	4.14	55.4
Internal Process Perspective	330	0.851	0.853-0.824	3.7	68.4
Learning and Growth Perspective	330	0.884	0.524-0.892	4.68	58.528
Linkage Perspective	330	0.81	0.716-0.867	3.48	69.7
Employees Understanding	324	0.801	0.601-0.954	5.68	70.14

In our research, we applied semi-structured interviews with the most experienced people in their field. These included senior managers who participated in the planning, applying, and monitoring of BSC. This process should enhance the validity of the findings of the current study.

6.6 Quantitative data analysis

Responses collected from the questionnaire based on the 5-point Likert scale were analysed using descriptive statistics and reported as frequencies, percentages, mean, mode, and standard deviations. The suggested hypotheses are examined by using parametric t-tests and non-parametric Mann Whitney and Wilcoxon signed rank tests.

In order to answer the main questions, the chapter is divided into two sections. In the first section, the level of understanding related to BSC perspectives is examined using the questionnaire and secondary data. The level of understanding is analysed

based on the components of the strategic map at KFSH. These components include the five perspectives of BSC and the linkages between them.

In the second section, the researcher uses secondary data to examine the changes in performance measures at KFSH following the implementation of BSC. The researcher collected secondary data from the published annual reports from 2002 to 2010 and followed the procedures suggested by Davis and Albright (2004) to examine the changes in the performance measures. In this procedure we determine if a change in performance indicators took place after the implementation of BSC. BSC at KFSH was applied in January 2006; hence, our data covers 4 years before the implementation and 4 years after the implementation. The pre-implementation period is from 2002 to 2005 and the post-implementation period is from 2007 to 2010. Following Davis and Albright (2004), we exclude the year of the event (2006) from the analysis when the effects of BSC should be observed. Due to the small number of observations in the sample, the non-parametric Wilcoxon signed rank test is used to determine whether a difference exists between the pre- and post-implementation phases.

6.6.1 Understanding the BSC Perspectives

In this section, the understanding of each BSC perspective implemented at KFSH is examined. The proxies (the questions) are used for measuring the understanding for each perspective based on the literature review. The following sub-sections detail the analyses.

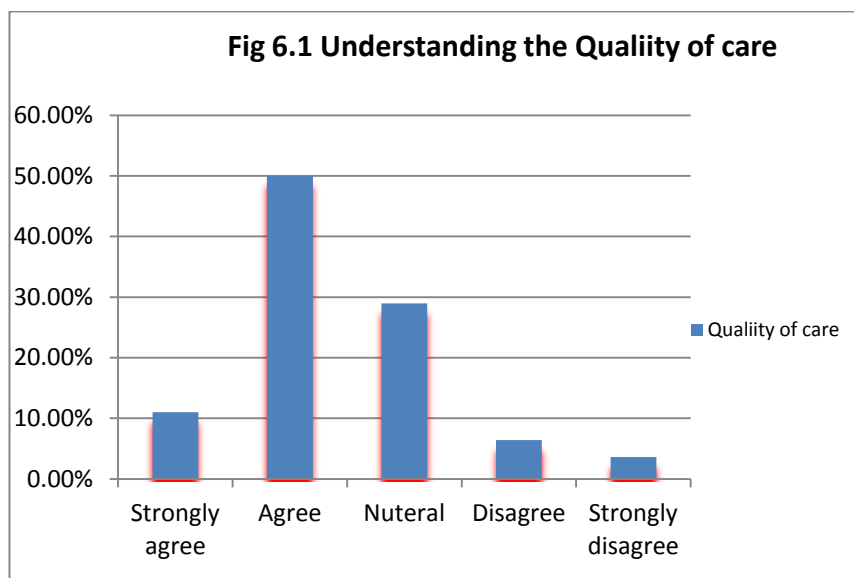
6.6.1.1 Understanding the quality of care perspective

Table 6.17 summarises the understanding of the quality of care perspective. **Table 6.17** shows that approximately 62% of the employees at KFSH understand the measures of the quality of care perspective. In addition, the mean value of the understanding quality of care is 3.65 and p value < 0 is significant at the 1% level. This

result indicates that the employees at KFSH are aware of the measure of the quality of services; the goals of the quality of care perspective; and the linkage between customer complaints and quality of care. The employees demonstrate an understanding of the common measures related to customer satisfaction and the image of the KFSH. However, the understanding of unique measures related to each departmental level is less than the common measures.

Table 6. 17 Presents the understanding of the quality of care perspective

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Error	T-test	Sig
%11.95	%50.34	%29.67	%6.49	%3.65	3.65	0.045	14.378	0.00



Next, the understanding of clinical staff is compared with that of non-clinical staff. **Table 6.18** shows that clinical employees understand the quality of care perspective more than non-clinical employees. Approximately, 65% of the clinical employees understand the quality of care perspective, while only 60% of non-clinical employees understand it. However, the difference in understanding between clinical and non-clinical staff is not significant since the t-test and Mann Whitney test are greater than 0.05.

Table 6. 18 Reports the difference in understanding of the quality of care perspective between clinical and non-clinical staff.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Sig (t-test)	Mann-Whitney U
Clinical	0.12	0.53	0.28	0.06	0.01	3.68	0.541	0.401
Non-clinical	0.12	0.48	0.31	0.07	0.02	3.63		

6.6.1.2 Understanding the internal process perspective

Table 6.19 presents the understanding of the internal process perspective. **Table 6.3** shows that approximately 74% (the percentage of both strongly agree and agree) of the employees at KFSH understand the measures of the internal process. Furthermore, the mean value of the understanding of the internal process is 3.81 and p value < 0 is significant at the 1% level. This result suggests that the employees at KFSH are aware of the measures related to the internal process. For example, the respondents show that they understand the measures, the data, the comparisons between measures, indicators, and the goals of the measures. The respondents are also aware of the link between the internal process and customer satisfaction.

Table 6.19 Presents the understanding of the internal process perspective.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Error	t	sign
12.61	62.33	19.18	4.65	1.20	3.81	0.04	24.13	0.00

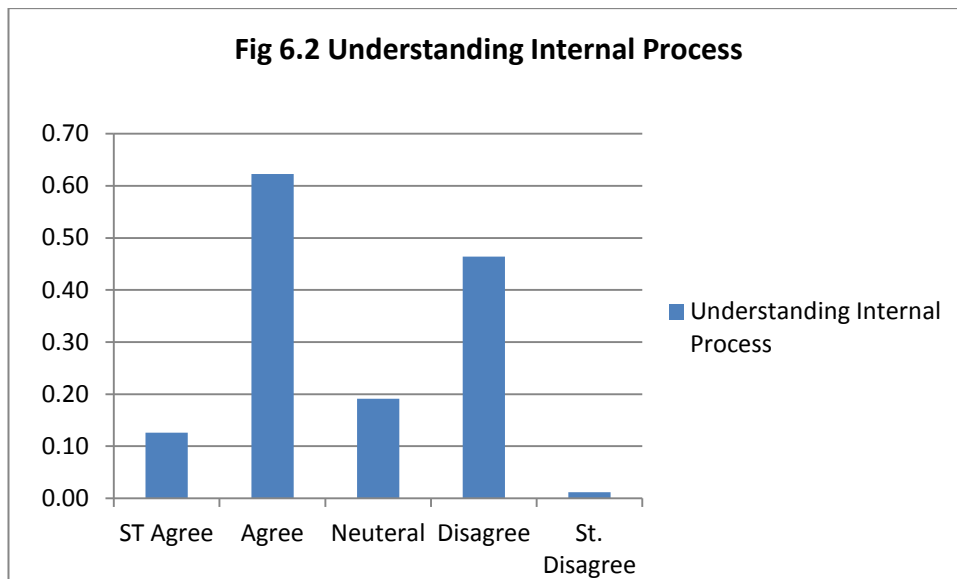


Table 6.20 reports the difference in understanding of the internal process between clinical and non-clinical employees. **Table 6.20** shows that clinical staff has similar understanding for the internal process as the non-clinical staff with mean Likert score values of 3.68 and 3.64, respectively.

Table 6. 20 Reports the difference in understanding of the internal process perspective between clinical and non-clinical staff

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Sig (t-test)	Mann-Whitney U
Clinical	11.12	63.97	18.27	5.48	0.011	3.68	0.725	0.555
Non-Clinical	0.0967	0.6395	0.2087	0.0417	0.0132	3.64		

6.6.1.3 Understanding the learning and growth perspective

Table 6.21 presents the understanding of the learning and growth perspective. **Table 6.21** shows that approximately 67% of the employees at KFSH understand the learning and growth perspective. The mean value for the understanding of learning and growth is 3.72 and is significant at the 1% level. This result also indicates that the employees at KFSH understand the measures, the data, the comparisons between measures,

indicators, and the goals of the measures. The respondents show that they attended a considerable number of training courses related to BSC and are aware of the link between the internal process and customer satisfaction as the main goal.

Table 6. 21 Presents the understanding of the learning and growth perspective.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	St Err	T	Sign
14.69	53.27	23.70	6.57	1.77	3.72	0.05	16.01	0.000

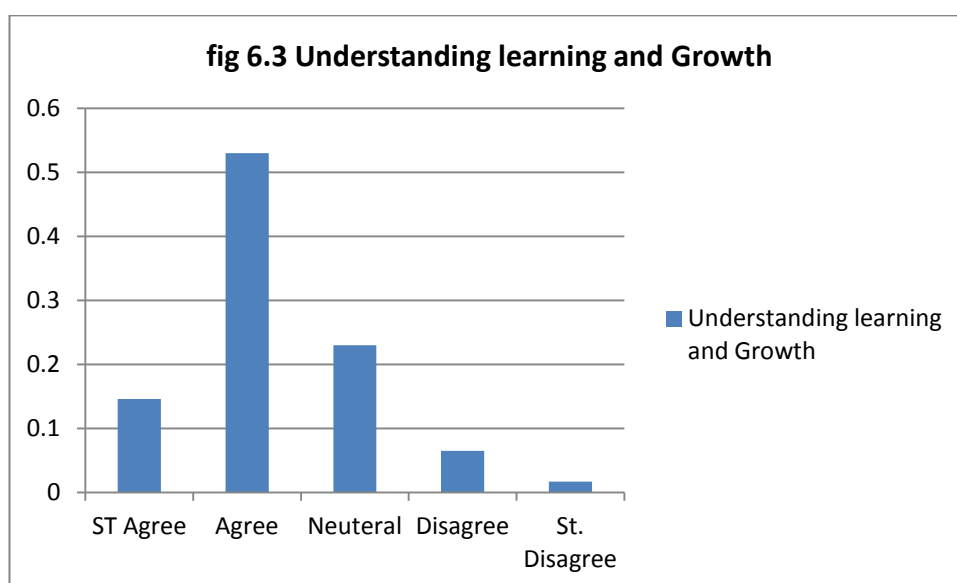


Table 6.22 reports the difference in understanding of the learning and growth perspective between clinical and non-clinical staff. **Table 6.22** documents that clinical staff and non-clinical staff show similar understanding for learning and growth perspective as the values of t-test and Mann-Whitney are greater than 0.05.

Table 6. 22 Reports the difference in the understanding of the learning and growth perspective between clinical and non-clinical staff

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Sig (t-test)	Mann-Whitney U
Clinic	14.44	56.22	23.00	5.00	0.01	3.76	0.289	0.296
Non-Clinic	12.01	54.56	26.35	5.96	0.01	3.69		

6.6.1.4 Understanding the medical care perspective

Table 6.23 presents the understanding of the internal process perspective. **Table 6.23** shows that approximately 67% of the employees at KFSH understand the medical care perspective. The mean value for understanding of the medical care perspective is 3.71 and is significant at the 1% level. This result suggests that the employees understand the measures and the data associated with these measure, the relation between measures, indicators, and the goal for each measures. The respondents show that the medical care perspective is tailored for patient satisfaction.

Table 6. 23 Presents the understanding of the medical care perspective.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	St Err	T-Test	Sig
12.54	54.74	26.74	6.625	0.525	3.709	0.042	17.27	0.001

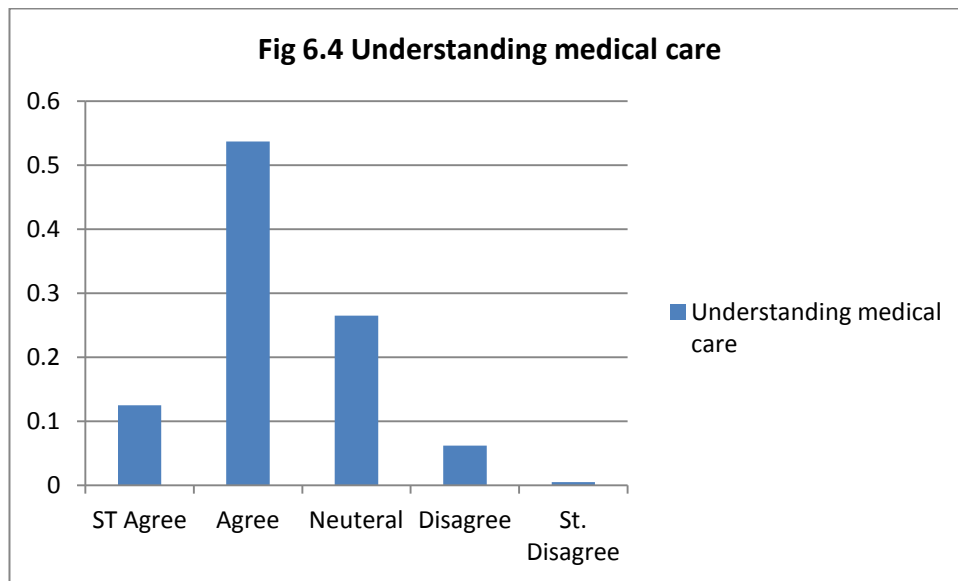


Table 6.24 reports the difference in understanding of the medical care perspective between clinical and non-clinical employees. **Table 6.24** documents that clinical employees understand the medical care perspective more than non-clinical staff as the mean is 3.75 and 3.68, respectively. The Mann-Whitney test shows that the

difference between the clinical and non-clinical employees in understanding the medical care perspective is not significant at 5% level.

Table 6. 24 Presents the difference in understanding of the medical care perspective between clinical and non-clinic staff.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Sig (t-test)	Mann-Whitney U
Clinical	12.09	58.18	23.40	6.07	0.27	3.75	0.14	0.09
Non-Clinical	12.90	50.80	28.95	6.55	0.78	3.68		

6.6.1.5 Understanding the financial perspective

Table 6.25 presents the understanding of the financial perspectives. **Table 6.25** shows that despite a good understanding of the other BSC perspectives; only 46% of the employees understand the financial perspective. The mean value of the understanding of the financial perspective is 3.60 and is significant at the 1% level. This is the lowest mean value of all perspectives under study. The respondents show that the data, the measures, the indicators, and the goals of the financial perspective are not clear.

Table 6. 25 Presents the understanding of the financial perspective.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	St Err	T-Test	Sig
17.5	28.99	49.74	3.29	0.40	3.6	0.042	14.21	0.000

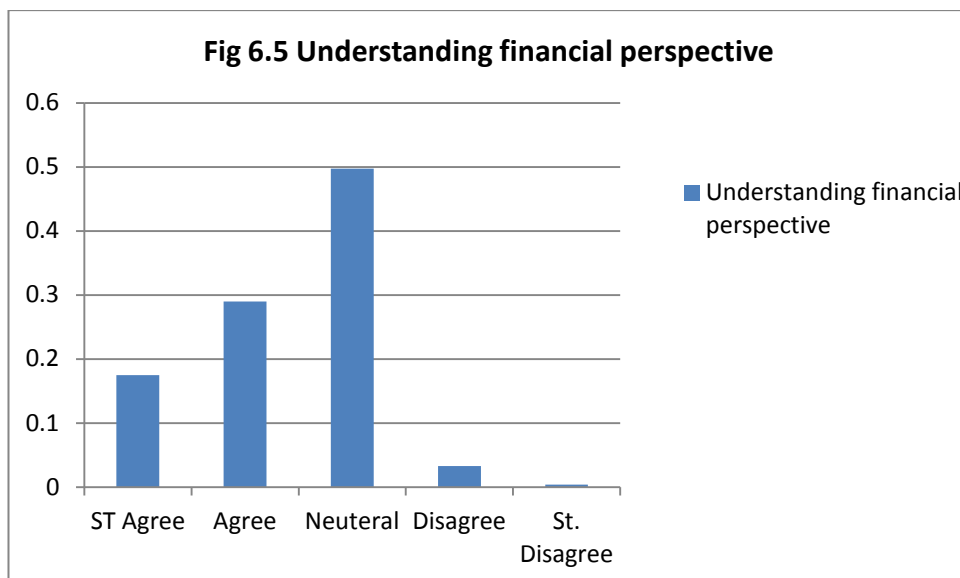


Table 6.26 reports the difference in the understanding of the financial perspective between clinical and non-clinical employees. **Table 6.26** shows that non-clinical employees understand the financial perspective more than clinical employees with mean values of 3.96 and 3.55, respectively. However, the t-test and Mann-Whitney test report that the difference between the understanding of clinical and non-clinical is not significant at the 5% level.

Table 6. 26 Reports the difference in understanding of the financial perspective between clinical and non-clinical staff

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Sig (t-test)	Mann-Whitney U
Clinical	12.83	29.22	54.69	2.9	0.30	3.55	0.075	0.081
Non-clinical	16.79	63.05	15.97	3.7	0.43	3.96		

6.6.1.6 Understanding the linkage of the BSC perspectives

Table 6.27 presents the understanding of the linkages between BSC perspectives and the strategy. Unexpectedly, **Table 6.27** documents that the employees do not significantly understand the linkages between the BSC perspectives and the strategy. Approximately 18% of the employees link between the BSC perspectives and the strategy. The mean

score for the linkage is 2.8 and is significant at the 1% level. The results indicate that the employees are largely unaware of the strategy, vision, value, mission, and the direction of KFSH. The majority (65%) of the employees show that they strongly disagree on question that they understand the long term objectives. Furthermore, the employees report that they do not know how the KFSH forms its strategy. In addition, the cause-and-effect relationship between the measures of BSC and their outcome is ambiguous. This study showed that the annual budget of KFSH is not linked with the long- and the short-term objectives. The results indicate that employees can barely articulate the priorities of the perspective with the strategy. Thus, the results suggest that employees are not very aware of the link between the BSC and the strategy.

Table 6. 27 Understanding the linkage of BSC with the strategy

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Error	T	sign
1.13	17.3	50.3	23.9	7.2	2.8	0.024	-8.2	0

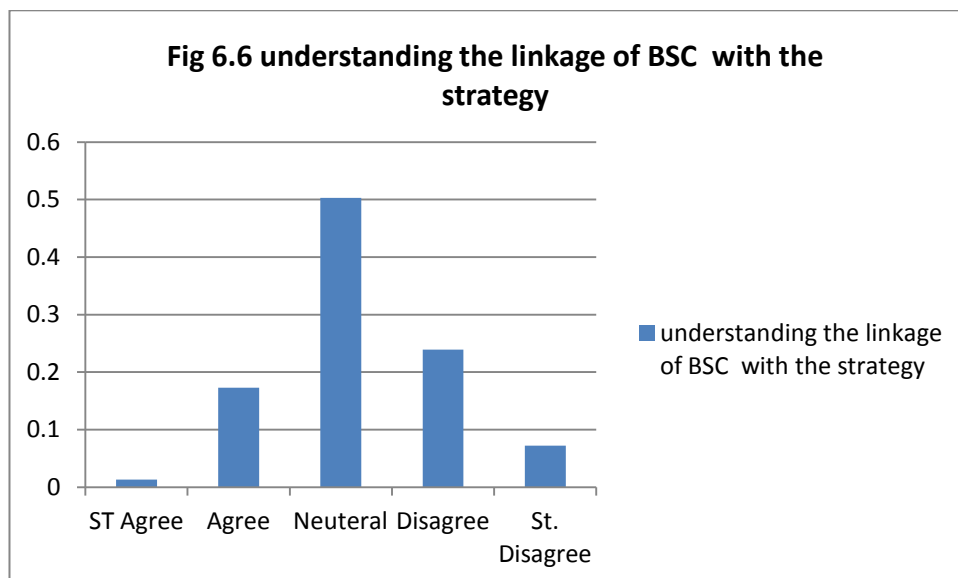


Table 6.28 presents the linkages between the strategy and the BSC perspectives. **Table 6.28** shows that the correlation between the business strategy and the BSC perspectives is varied. In particular, the correlation between the medical care perspective and the strategy is 49% which is higher than for other BSC perspectives. The correlation between the financial perspective and the strategy is 0.326, which is the lowest among the BSC perspectives. The result confirms the notion that KFSH, as a public sector organisation, pays more attention to non-financial perspectives. Specifically, emphasis is placed on the following perspectives in descending order of importance: medical care, learning and growth, the internal process, and quality of care, respectively. **Table 6.28** reports that the correlation between financial perspective and all of the non-financial perspectives (medical care, the learning and growth, the internal process, and the quality of care) is weak. This result indicates that non-financial perspectives are detached from the financial perspective. This reflects the nature of KFSH as not-for-profit organisation.

Table 6. 28 The Pearson correlations between the BSC perspectives and the business strategy

	Business strategy	Financial	Internal process	Quality of care	Learning & Growth	Medical of care
Business strategy	1					
Financial	.326	1				
Internal process	.454	.353	1			
Quality of care	.404	.289	.730	1		
Learning & Growth	.474	.332	.777	.828	1	
Medical of care	.490	.333	.811	.820	.811	1

Table 6.29 compares the understanding of the strategic map among the top, middle, and lower management levels. **Table 6.29** shows that 54% of executive managers understand the strategic direction of KFSH. On the other hand, only 34% and 14% of the heads of departments and general staff understand the strategic direction of

KFSH, respectively. This result indicates that BSC is limited to seven people who are working as executive managers in the top management level. The top, middle and lower management level think that top managers are responsible for translating the strategy at KFSH. This result also indicates that employees do not see BSC as the responsibility of everyone, since 53% of the general staff think that translating the BSC strategy is related to the top management level. Furthermore, the general staff indicate that only 12% of them are involved in translating the BSC strategy.

In addition, 59% of executive managers understand the cause and effect relationship, while only 19% of the general staff understand the cause and effect. This result also lends more support to the notion that BSC at KFSH is not everyone's job. **Table 6.29** also shows that only 32%, 25%, and 9% of the executive managers, heads of departments, and the general staff understand the strategic map, respectively. This result helps to explain why employees (including top and lower management levels) are unable to link between the BSC perspectives and the strategy. The employees at KFSH think that the successful implementation of BSC depends mainly on the role of leadership and performance measures. More than half of executive's head of departments, and general staff agree that BSC is the responsibility of leaders and it is only a tool for performance measures. Both top and lower management levels underestimate the role of stakeholders and the rewards of implementing a successful BSC system. For example, only 13% of the general staff think that BSC is linked to their rewards. In addition, only 16% of the general staff believe that BSC depends on understanding the needs of the stakeholders.

Table 6. 29 Comparisons of Top Management Levels of Understanding at BSC With Lower Management Levels

Items	Executive managers	Head of department	General staff
The strategic direction (visions, mission, and values) is understood	54%	34%	14%
Managers are responsible for translating the strategy of the BSC	60%	56%	48%
Employees are responsible for translating the strategy of the BSC	32%	28%	12%
Understands the cause-and-effect between BSC perspectives and the strategy	59%	51%	19%
Understands the vision statement	56%	55%	39%
Understands the strategic map	32%	25%	9%
In the KFSH, the BSC depends on:			
A) Leadership involvement	77%	67%	61%
B) Cause-and-effect	36%	39%	26%
C) Performance measures	55%	45%	75%
D) Linkages to stakeholder	33%	32%	16%
E) The linkage with rewards	26%	18%	13%

6.7 Qualitative data analysis

The qualitative data gathered here is obtained through two different instruments: ‘semi-structured’ interviews and ‘observation’ by the investigator, who was an employee at KFSH during the years 2001 to 2008. The semi-structured interviews were conducted with 36 participants, who were from different levels of the organisational hierarchy at KFSH, and the second source was through retrospective observation.

6.7.1 Semi-structured interview analysis

There is a precise procedure for interviewing human subjects, as argued by Kvale and Brinkmann (2008) and (2009) and Creswell and Plano (2011). However, the data obtained by observation—most importantly the analysis of such data—is more problematic, in that it may be considered biased, since the observer, based on his or her past experiences, may choose to *see* particular phenomena and leave others out. One

way to address this potential bias is to exercise historical observation as suggested by Johnson and Duberley (2003) and Hughes (2006). All in all, 36 semi-structured interviews were conducted over a period of 45 days (see **Table A.4 the Appendix**) and **Table 6.30 demonstrates the demographic distribution of the interviewees.**

Table 6. 30 Presents the demographic distribution of the interviewees.

Domain	Category	Num	%
Departments	Senior executives	7	19%
	Directors	7	19%
	Doctors	7	19%
	Nurses	7	19%
	Supporting staff	8	22%
Gender	Female	16	44%
	Male	20	56%
Clinical / Non-Clinical staff	Clinical	26	72%
	Non-clinical	10	28%
Job role	Senior level	7	19%
	Middle level	14	39%
	Junior level	15	42%
Nationality	Saudi	25	69%
	Middle East	3	8%
	Asian Countries	5	14%
	Others	3	8%
Age	20-29	7	19%
	30-39	14	39%
	40-49	10	28%
	50-59	5	14%
Qualification	PhD	10	28%
	Master Degree	2	6%
	First Degree	14	39%
	Diploma	10	28%
Length of employment	5-10 Years	16	44%
	11-15 Years	10	28%
	16-20 Years	6	17%
	21-25 Years	4	11%

6.7.1.1 Participants profile

The participants for the field study were from very different cultural backgrounds. The age of the participants ranged between early-thirties and late-sixties.

Different nationalities, such as, Saudis, Americans, British, Lebanese, Jordanians, Indians and Filipinos; and religions, such as, Islam and Christianity were represented. The participants were chosen from different job roles in the hospital.

Later in this chapter, a short background profile of selected participants, given alphabetical codes, whose significant statements were chosen for data explication.

6.7.2 Coding for thematic analysis

Boyatzis (1998) explains that the coding process should include recognizing an important moment and encoding it prior to a process of interpretation. Kitto et al. (2008) define coding as a process that permits data to be "segregated, grouped, regrouped and relinked in order to consolidate meaning and explanation" Saldaña (2012) defines coding as qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data. According to Saldaña (2012) the data can consist of interview transcripts, participant observation field notes, journals, documents, literature, photographs, video, websites, and e-mail correspondence. Coding is therefore a method that enables researcher to organize and group similarly coded data into categories or families.

A "good code" is one that captures the qualitative richness of the phenomenon. Encoding the information organizes the data to identify and develop themes from them. Daly, Kellehear, and Gliksman (1997) define thematic analysis as a search for themes that emerge as being important to the description of the phenomenon. The search process includes the identification of themes through "careful reading and re-reading of the data (Rice and Ezzy, 1999). Boyatzis (1998) defined a theme as "a pattern in the information that at minimum describes and organises the possible observations and at maximum interprets aspects of the phenomenon.

6.7.2.1 The Mechanics of Coding

Pre-coding is one of the main mechanics that the researcher should consider. Pre-code by which the researcher coordinates the data by circling, highlighting, bolding, underlining, colouring rich or significant participant quotes or passages that strike the attention (Boyatzis, 1998). Booth et al. (2003) explain that these data can become key pieces of the evidentiary warrant to support a researcher's propositions.

Saldaña (2012) considers the important of preliminary jottings by which researchers start coding as they collect and format data. When they are recorded interviews, or filing documents they jot down any preliminary words or phrases for codes on the notes, transcripts, or documents themselves, or as an analytic memo or entry in a research journal for future reference. The researcher is therefore issued the codebook which is based on a preliminary scanning of the transcripts. This codebook is also developed based on the research question and the theoretical framework.

Auerbach and Silverstein (2003) recommend that research should keep a copy of theoretical framework, propositions, central research question, goals of the research, and other major issues on one page in front of him/her to focus on coding decisions.

6.7.2.2 Stages of data coding

In this research, the researcher follows the stages of data coding that suggested by Guest et al. (2011) which summarises as follows:

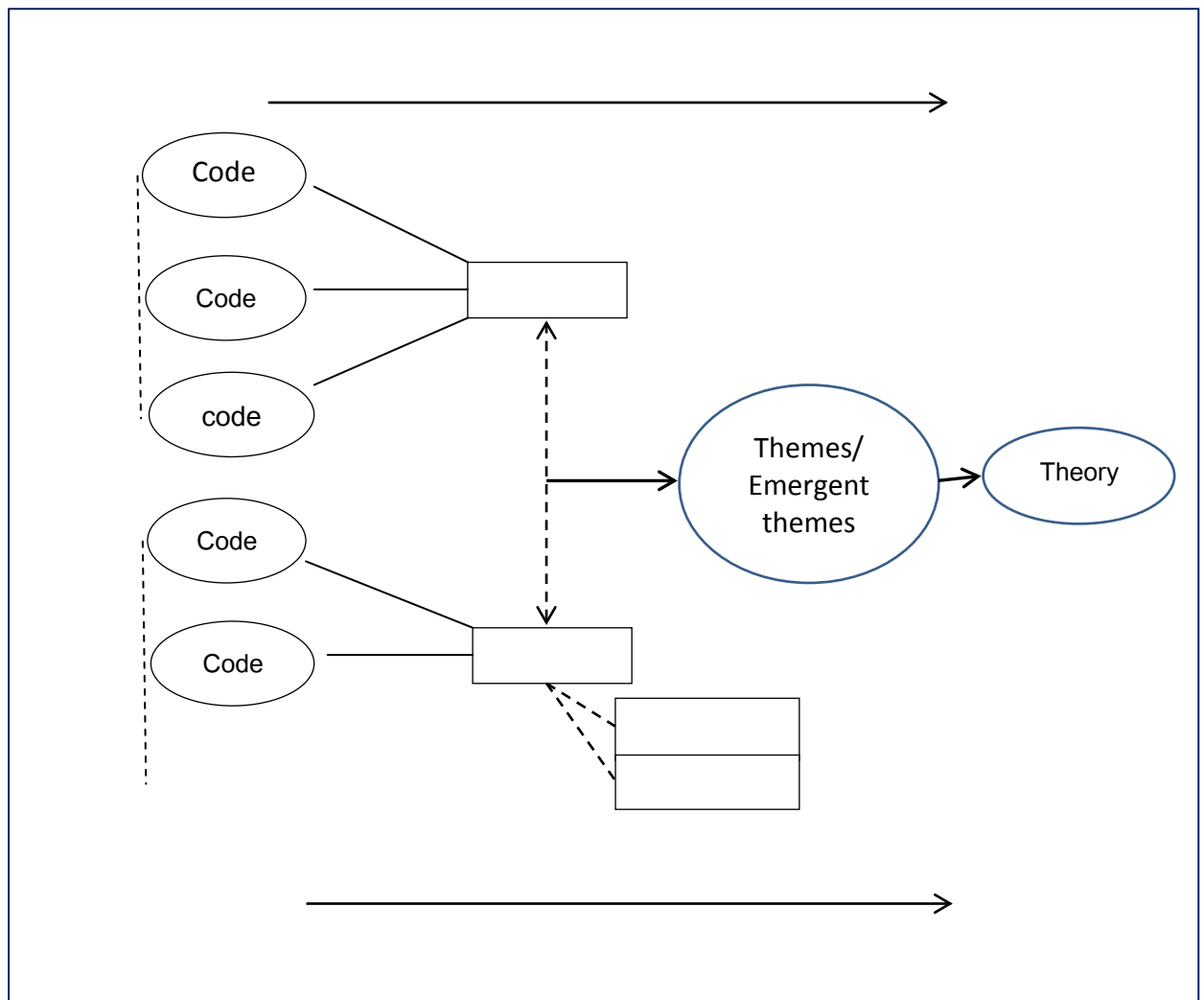
Stage 1: Developing the code manual

Crabtree and Miller (1992) suggest to choice of a code manual which is served as a data management tool for organizing segments of similar or related text to assist in interpretation. The use of a template provided a clear trail of evidence for the credibility of the study. For the purpose of this research the template was developed a priori, based

on the research questions, propositions, and conceptual framework. **Figure 6.7** demonstrates the components of the code manual. Five broad code categories formed the code manual which includes executives, directors, doctors, nurses, and supportive staff. For the purpose of this research, codes are written with reference to Boyatzis (1998) and identified by

1. The code label or name.
2. The definition of what the theme concerns, and
3. A description of how to know when the theme occurs.

Figure 6.7 the code manual as explained by Guest et al. (2011)



Stage 2: Testing the reliability of the code

Boyatzis (1998) explains that the initial step in the development of a useful framework for analysis is to determine the applicability of the code to the raw data. To examine the validity of coding, the researcher sets the predefined codes which are derived from propositions. The researcher consults local academic experts in KSA to code the document. Then the results are compared with his code, and no modifications to the predetermined code template are required.

Stage 3: Summarising data and identifying initial themes

In this stage, the researcher summarises data by reading, listening to, re-reading the transcripts or interviews. We apply this technique as a first step when analysing each transcript of the interviewees. We summarized the transcripts separately by outlining the key points made by participants (in response to the questions asked by the researcher. These key questions formed the framework for the semi-structured interviews. The summary for each respondent reflects the initial processing of the information by the researcher and provided the opportunity to sense and take note of potential themes in the raw data.

Stage 4: Applying template of codes and additional coding

In this stage, the researcher applies the codes from the codebook to the text with the intent of identifying meaningful units of text as suggested by Crabtree and Miller (1992). This codebook is based on a preliminary scanning of the transcripts. The codes developed for the manual were entered as nodes, and the researcher coded the text by matching the codes with segments of data selected as representative of the code. The segments of text were then sorted, and a process of data retrieval organized the codes or

clustered codes for each participant. During the coding of transcripts, inductive codes were assigned to segments of data that described an emergent theme observed. These additional codes were either separate from the predetermined codes or they expanded a code from the manual.

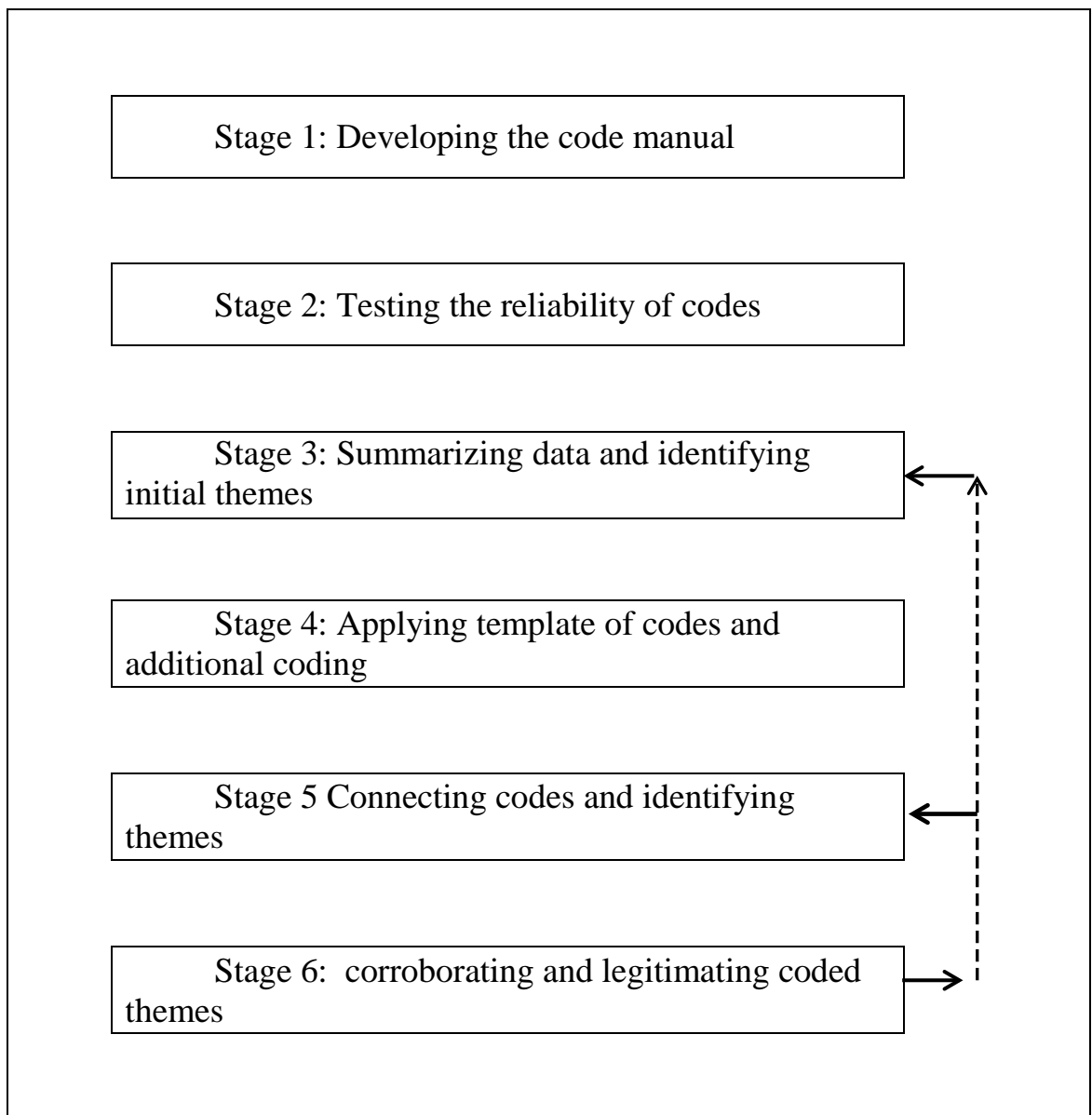
Stage 5: Connecting the codes and identifying themes

Connecting codes is the process of discovering themes and emergent themes in the raw data (Crabtree and Miller, 1992). This process include of connecting the codes and identifying themes across the five sets of data. These five sets include senior executives, directors, doctors, nurses, and supporting staff. The data then clustered under headings that directly relate to the research questions and propositions. Similarities and differences between sets of data were emerging at this stage, indicating areas of consensus in response to the research questions and areas of potential conflict. Initial and emerging themes within each data set were also beginning to cluster, with differences identified between the responses of sets with varying demographics.

Stage 6: Corroborating and legitimating coded themes

The final stage shows the process of further clustering the initial and emergent themes that were previously identified from the coded text. Crabtree and Miller (1992) define corroborating as the term used to describe the process of confirming the findings. In this stage, the previous stages were closely examined to ensure that the clustered themes were representative of the initial data analysis and assigned codes. **Figure 6.8** summarises the stages of data coding.

Figure 6.8The stages of the data coding as explained by Crabtree and Miller (1992)



6.7.3 Thematic analysis of the semi-structured interviews

As already mentioned in the conceptual framework, according to Hao *et al.* (2012), the level of understanding of BSC by the staff varies depending on the individual's perception, understanding and thinking about the world. Such individualized perception is affected not only by the individuals past experience, but also by their personal characteristics. Since individuals have different cognitive models

and every person possesses a different understanding of external stimulus information, they see the same thing in different ways, and arrive at different meanings (Gao and li-Cai, 2008). With such a view, it is then logical to use a method of analysis that explores an individual's overall and holistic perception based on their past experiences, which constitutes their worldview.

For the semi-structured interviews, thematic analysis is used for the purpose of arriving to an overarching 'sense' by analysing the participant's answers to the interview questions. From the answers given by the participants, significant statements are then identified, which subsequently form 'themes'. Themes are then organised into groups in accordance with their meanings. Two different types of themes are produced: i) 'designated' (main) themes and ii) 'emerging' themes.

The main themes are directly related to the perspectives investigated at KFSH. The emerging themes cover any other significant statement made by the participants, which provides additional information and contributes to the overall 'sense-making' of the BSC at KFSH. The output from each interview is organised in designated (main) themes based on the significant statements made by the participants in the form of their answers to the questions posed. These designated themes were then organised in clusters based on the five BSC perspectives applied at KFSH. In addition, any other significant statement encountered that was not an answer to a particular question was organised into a cluster named 'Emerging Themes'. Data from all different groups were explicated and their correlation explored. **Table 6.31** below depicts the clusters, designated themes, and emerged themes.

Table 6. 31 Depicts the clusters, designated themes and emerged themes from the semi-structured interviews

Perspectives covered	Main Themes	Emerging Themes	Explication of data from:
Medical and clinical Quality Clinical Employees Finance Learning & growth	<p>Theme one - Understanding and Linkage</p> <p>Theme two - Weighting and Generation</p> <p>Theme three – Management Information System and Human Resource</p> <p>Theme four - Communication</p>	<p>Theme five – Opposition</p> <p>Theme six – Power distance</p> <p>Theme seven – BSC imbalance</p> <p>Theme eight – Self-deception</p> <p>Theme nine – Breakdown of / low level of communication</p> <p>Theme ten – Insufficient awareness</p>	<p>Senior executives Directors Doctors Nurses Supporting staff</p>

First: Designated (main) themes

According to Kaplan (2001), the ‘non-financial’ perspective is perhaps the most important element in the construction of BSC. This is because it represents a performance measurement tool other than the ‘financial’, providing a holistic and multifaceted view of the entire organisation.

Theme one – Understanding BSC perspectives and the linkage with Business Strategy

BSC, according to Kaplan and Norton (1992), is designed to translate management's strategy into performance measures that employees can understand and implement. To this end, understanding the inter-relationship of the drivers is a key success factor for BSC (Mintzberg et al., 1976). In this cluster, the significant statements regarding the understanding of BSC and its link with the strategy, mission, and the relationship between different perspectives are explored.

All in all, three out of seven senior executives demonstrated a thorough knowledge of BSC. Their answers were indicative of the fact that they have a good understanding of the BSC process. All of the three executives could support their assertions by correctly recounting the five perspectives of BSC implemented at KFSH. However, the following statement by interviewee **AH, a director of total quality management**, a senior executive, indicates that although he understands each perspective of BSC, the essential element of ‘inter-connectivity’ among the perspectives was lacking. Thus, the holistic approach recommended by scholars, such as, Ittner et al. (2003b) was not apparent. The questions posed were: ‘which measures are included in the different perspectives? Are the measures linked with strategy- the common and the unique measures?’ The participant, **AH, a director of total quality management**, said:

“We have different measures for each perspective – as it applies to a particular department. As top management, our main concern is the medical care perspective, such as the bed occupancy rate, the number of patients accepted, numbers seen in the clinic, number of ‘OR’ cases, and others. For the quality care, we are concerned about mortality rates, the percentage of harm offences, and patient satisfaction. For employee perspective, we are concerned about the grand total of staff – and the attrition rate - and the average rates of recruitment locally and internationally, the amount of approved overtime. For the financial perspective, we are concerned about building and maintaining good relations with our stakeholders. As for education and research, we have different medical courses for most departments; we also have online courses and host conferences both nationally and internationally.”

The same lack of in-depth understanding of the way BSC should be deployed was shown by interviewee **AI, director of planning and development**, who provided the following answer to the same previous questions:

“I advise the quality management team – who in turn advise and train key managers on how to adapt BSC to suit their particular departments. I expect the head of the department to demonstrate to us in the top management how they align the BSC process day to day functionality – and increase efficiency, measure performance accurately, and enable top management to track performance and link through to the strategic plan.”

Such a statement seems, to some extent, to go in line statement regarding how easy it is to understand the measurements and their roles in the organisation. The question was: ‘the Scorecard includes many measures, are they understandable?’ To which, interviewee **AK, director of human and resource** replied:

“Yes, they are understandable if training is provided. Staff will require continual training and education in order to develop personal and team objectives.”

Most of the non-exective staff, including interviewees **W, AD, and AC which are coordinators**, stated that they have no clear idea what BSC is and how it operates, let alone its measurements. For instance, the same question was presented to the lower-staff in the organisational heirarchy, one of the nurses replied:

“I do not understand, perhaps if I received training I would know more”
(Interviewee **W, a coordinator**).

Another nurse said:

“I have some understanding of the measures which relate to our perspectives”
(Interviewee **AC, a nurse**).

And finally interviewee **AD, a coordinator**, stated:

“Yes, as each department is able to modify BSC to suit their individual requirements, the BSC measures are therefore very easy to understand.”

This last statement leads us to question whether or not the employees across different departments and at different hierarchical level truly understand the linkage and the importance of BSC. For instance, when asked the following question: ‘after implementing the BSC at KFSH, do you think the mission, vision and core values are understandable and link to the strategic management?’, Interviewee **Y, a clerk**, from the middle-management level answered:

“I have an understanding of the mission and vision and core values, but do not really understand how they link to the strategic management.”

Interviewee **R, a nurse**, also a nurse, replied:

“The mission and vision and core values are clear to us – and we understand how they link to the strategic management.”

Such generic and short answers indicate that about 76% of the nurses can define the BSC correctly. However they fail to give more details on the linkage between the BSC perspectives and the business strategy.

H, a surgeon, attributes the failure in understanding the details of the BSC and its linkage with the with the business strategy to the role of the Joint Commission International Accredited (JCIA) as in the statement below:

“There is a lack of knowledge amongst hospital staff of the mission, vision and core values; this is demonstrated by the fact that when the Joint Commission International Accredited (JCIA) visited, staff members did not have to actually know or understand the mission/vision/core values, but to simply be able to read out the mantra from a little booklet provided by the hospital management” (Interviewee H, a surgeon).

According to 65% of the senior executives, the JCIA failed to encourage staff in the lower management levels to consider the important of the missions,

vision, and the business core value. In contrast, we observed that 75% of the higher ranked employees, such as, senior executives are far more elaborate in their answers. This indicates a gap between the understanding of BSC among general and supporting staff and the decision making staff. The following statements by two senior executives, **C** and **AH, directors** are indicative of this notion:

“Yes, after the implementation of the BSC mission, vision and core value are understandable to me, but they are not well known to the department staff, some of them are interested and some are not. The latter say they are busy enough with their job and do not want the extra work” (Interviewee **C, director of dentist**).

“Yes, they are logical, and easy to understand. In addition, we are in the process of making the staff aware through continuing education, in order to develop personal and team objectives – as well as testing the understanding of the department heads” (Interviewee **AH, director of total quality management**).

These two statements demonstrate that the more than **73%** of the senior executives and directors have better understanding of BSC, its measurement and most importantly the linkage. However, they do admit that the staff at lower levels in the organisation find it more difficult to grasp BSC. The discrepancy between the statements made by the senior executives and non-executives regarding the linkage between different perspectives and their linkage to the vision and mission is confirmed by the statements provided by interviewees **W** and **AB, a nurse and coordinator**, respectively and both from the lower management. When asked, ‘to what extent do you believe that the BSC is useful for strategy development and implementation in the (health) Industry?’, **W, a nurse**, answered:

“I do not know, but perhaps it is good because it measures the hospital’s performance.”

And interviewee **AB, a coordinator**, simply answered:

“I do not know”.

While interviewee **AE, a lower ranked nurse**, replied to the same question in the following manner:

“I think BSC is useful for the industry because it combines the financial and non-financial aspects, and the staff should recognize the difference between the two.”

These results show that more than 62% of the lower management level's staff including nurses and coordinators think that the BSC is designed for the industrial organisation. In addition, it only helps hospitals as performance management tool not as a business strategy. However, the most senior managers (78%) believe that the BSC is important to hospitals.

Such a wide gap of understanding demonstrated mentioned above between staff from different layers of the organisation indicates that the non-executive staff are not trained in understanding and operating BSC. This points towards inadequate staff training in BSC for two potential reasons: i) failure in following up the employee perspective of BSC despite the BSC at KFSH being at the 1st generation, and ii) the senior staff intentionally try to keep the knowledge from staff as way to exert power through the 'power of information' (Bal et al., 2008). Secondly, it also demonstrates that after five years, the deployment of BSC has yet to be successful. According to Ching-Chow et al. (2005) "BSC needs five years at least to be promoted successfully". This five-year period has been exceeded at KFSH, since BSC was launched in 2006.

In the following theme, the weighting and the BSC generation are discussed. Exploration of inadequate training and development is conducted in cluster five (the development and learning cluster).

Theme Two - Weighting and generation

Ghosh and Lusch (2000) argue that auditors and evaluators are more likely to use financial indicators than non-financial ones when assessing a manager's performance. Contrary to this, healthcare industries give more weight to non-financial indicators (Voelker et al., 2001), regardless of whether the actions to achieve the results are appropriate (Ittner *et al.*, 2003). Clearly such difference in weighting is counter-intuitive to the essence of BSC. In this section, the weighting of different measurements at KFSH is explored by first looking at the statements made by senior executives.

To the question: 'In your department, which measures you focus on (financial or non-financial)? Mention them please. **Table 6.32** presents the answers on the results of financial and non-financial measures. **Table 6.32** shows that majority (89%) of senior managers focus on both financial and non-financial measures. For instance, interviewee **AI**, a **director of planning and development**, responded:

"We focus on both financial and non-financial with equal importance, because success in both perspectives enables the hospital to meet its strategic objectives."

While interviewee **AK**, **director of human and resource**, stated:

"We are concerned about both financial and non-financial; some of the departments do not fully understand that the financial perspectives are not only the budget."

And finally interviewee **AH**, a **director of total quality management**, answered:

"We are concerned about the BSC overall and in total – in other words we focus on both financial and non-financial. Some of the departments do not fully understand the financial perspectives; they think it is simply the budget. They mention that the financial perspective is not important to our hospital and we can exclude it."

Table 6. 32 compare the interviewees attention between the financial and non-financial measures.

Departments	Financial only	Non-financial only	Both
Senior Executives	5%	6%	89%
Directors	7%	6%	87%
Doctors	4%	88%	8%
Nurses	1%	92%	7%
Supporting staff	3%	95%	2%

However comparing these statements with what the doctors have to say, it was discovered that the doctors are generally more concerned about the non-financial perspectives of BSC. **Table 6.33** shows that 88% of the interviewed doctors pay more attention to the non-financial measures. For instance, interviewee **H, a surgeon**, mention in the following statement below:

“I’m not sure, but I assume we are focused on the non-financial”

Furthermore, interviewee J, a medicine doctor also mention:

“I assume my department is focused on the non-financial. I certainly am”.

In addition, interviewee **K, a doctor at the intensive care unit**, says that:

“I focus mainly on the non-financial, the medical care aspects – and the patient care”.

Interviewee A, a doctor of Hematology, mentions that doctors have good experience in non-financial measures, however they have very limited experience in financial measures.

“We focus on the whole of BSC, financial and the non-financial. Most of the hospital departments focus primarily on the non-financial, but have a limited understanding of the financial, other than their own particular budgets” (Interviewee A, a doctor of Hematology).

Similarly, interviewee E, a dentist stated that:

“But we are primarily concerned with the non-financial, e.g. high patient numbers, and long waiting lists. We focus on staff recruitment, training and qualified staff to meet the standards we aim to achieve. Regarding financial concern, we aim to work within the budget allocated to us by the hospital management,” (interviewee **E, a dentist**).

Similar to doctors, Nurses also pay more attention to the non-financial measures. Approximately, 93% of nurses say that they pay more attention to the non- financial measures. Such a trend, i.e.more focus on the non-financial perspectives, especially by the medical staff,seems to be prevalent in the health care industry. This observation is also supported by scholars, such as, Jones et al. (2002) and Voelker et al. (2001). Furthermore, this assertion is confirmed by Heberer (1998), who demonstrates that BSC perspectives present different weight and assert that a hierarchy exists between the perspectives replacing the balance; also see (Aidemark, 2001) and (Aidemark and Funck, 2009).

Hence, it is evident that it is only the upper level management at KFSH that is primarily involved in prioritizing the various perspectives of BSC at KFSH.

The results above indicate that employees and managers, who happen to be medical staff, give "more weight" to non-financial perspectives. In addition, their experience in BSC is limited to the measures and goals for each measure. Some of the managers and employees fail to show in-depth experience regarding the linkage between BSC and the business strategy.

Theme Three - MIS and HR

According to Chan (2006), the lack (more than 70% in general) in the implementation of BSC is a result of not having highly developed information systems and information flow to spread the knowledge of BSC. All management levels ought to

contribute in the process, and without effective communication, this is hindered (also see Andersson *et al.*, 2003).

It is evident that information flow within KFSH has been hampered, since only 45% of the senior management have access to the BSC. Three out of seven of the senior executives were asked these two related questions⁹: ‘who is in charge of collecting BSC-related data? And at which organizational level these staff are?; and ‘who combines the data and prepares the reports?’ The answers obtained were as follows:

“The CEO team prepares the departmental report for the presentation for the Board’s quarterly meetings.”

“Myself and my team” (interviewee **AI, a director of planning and development**).

“In our office, we prepare the departmental report for presentation for the Board’s quarterly meetings.”

“Myself and my team. I have two coordinators who give close support”. (interviewee **AH, a director of total quality management**)

“In our office, myself and my personal staff participate in preparing the report for the Board’s quarterly meetings.”

“Myself and the CEO team” (interviewee **AK, a director of human and resource**).

In contrast, it appears that the lower ranked staff, who are in regular contact with clients and other employees, have no real input in the preparation and interpretation of the data.

To the same questions, **a head nurse, interviewee O**, reported:

⁹ Three of the interviewees answer this question.

“In nursing, we have over 12 data collectors. This task puts an extra burden on senior staff. Data collection should be undertaken by extra staff to reduce the time spent on data collection.”

“The Chief of nursing presents the report to the hospital management after all the coordinators have gathered all the data and the senior nurses and head nurses have compiled the final report.”

And interviewee **U, a nurse**, responded:

“I think it is the coordinators and the head nurse.”

“I help the coordinators gather some of the information, and they pass it on to the nursing supervisor and the head nurse.”

A member of the supporting staff, interviewee **AD, a coordinator**, claimed:

“We collect all the data from the BSC Intranet.”

“My assistant and I.”

Finally, perhaps the most important question posed in relation to MIS and HR was, ‘is BSC developed by management (top-down) or is it developed within the departments (bottom-up)?’, the senior executives responded:

*“In KFSH, we implement BSC from top to bottom. I feel that we have a proactive management – results focused, and are decisive in the face of the changing circumstances” (interviewee **AI, a director of planning and development**).*

*“In KFSH, we implement BSC from top to bottom. If we have difficulties in this process, we provide a support team to the weakest areas – for review and resolution of such difficulties. I feel that we have a proactive management – results focused, and are decisive in the face of changing circumstances” (interviewee **AH, a director of total quality management**).*

“In KFSH we conceive, plan, develop and implement BSC from top to bottom. If we encounter difficulties in this process, we provide a support team to the weakest areas – for the review and resolution of such difficulties. We are a proactive management – results focused, and decisive in the face of continually changing circumstances.”
(interviewee **AK**, a **director of human and resource**).

These statements were confirmed by others (in various hierarchical positions), as supported by the the following responses:

“BSC is developed from top-down, and for me this takes the form of instructions from my director. I am able to make comments and collate data.” (interviewee **Y**, a **director of obstetrician-gynecologist**)

“BSC is developed from top-down, and for me this takes the form of instructions from my director. I cannot make any changes myself – but only after discussing the matter first. Once I have consulted with the director, I am able to make the comments and collate data.”
(interviewee **AC**, a **nurse**)

Theme four – Communication

Kaplan and Norton (1996b) assert that communication is a vehicle by which top management transfers knowledge to lower management levels. They further stipulate that through communication, the various levels of top management should discuss and review the vision and the scorecard component with lower management to generate BSC’s learning environment. This in turn should result in the enhancement of the level of understanding of BSC. In this section, we look at the way communication is carried out at KFSH.

To the questions: ‘has senior management communicated a clear plan for meeting the BSC strategic map?’ and ‘what communication media do they use it, for example (diagrams, pictures, presentations)?’ one participant stated:

“For BSC, we are employing our usual communication, via small and large group meetings, visual presentations, email, memos, and reports” (interviewee **AH, a director of total quality management**).

To the same questions, **AK, a director of human and resource**, postulated:

“Communication between all the inter-connected elements of BSC is essential if progress is to be maintained. For BSC, we are employing our usual communication, via small and large group meetings, visual presentations, email, memos, and reports” (interviewee **AK, a director of human and resource**).

Doctors also confirm that they communicate with directors and senior managers by using face to face meetings, e-mails, handwritten personal notes Formal speeches, and telephone conversations. For instance, **K, intensive care unit doctor**, said:

“Face to face meetings, e-mails, and telephone conversation are applied to communicate senior managers and other colleagues.” (interviewee **K, a doctor at the intensive care unit**).

U, a doctor at the emergency unit also said:

“Texting, telephone conversation, official meetings, and e-mails, are the most applied communication tools in the KFSH” (interviewee **U, a doctor at the emergency unit**).

Such claims are confirmed by the nurses and other staff, although, one of the participants (**interviewee N, an appointment officer**) disputed it:

“Face to face meetings and communications with senior management, some small meetings, reports and BSC intranet” (interviewee **N, an appointment officer**).

“Face to face communications, small and large group meetings, visual representations, BSC intranet, telephone meetings, email, training,

advance copies agenda, memos, formal speeches, reports”
(interviewee **AE, a nurse**).

“We have small and large meetings, face to face communications, visual presentations, intranet BSC, emails, memos and reports”
(interviewee **O, a head nurse**).

However, only one of the lower management level employees said that:

“There is no communication with us regarding the BSC strategy map, and I do not know what the communication medias are” (interviewee **AB, a coordinator**).

In general, answers by the interviewees show largely that KFSH apply different types of communication media including face to face meetings, e-mails, reports, official telephone conversations, and large group meetings. Yet, 95% of the interviewees did not mention to the other communication tools such as diagrams, learning maps, and visual representations. **Table 6.33** demonstrates the most communication tools that mentioned by interviewees according to their level.

Table 6. 33 The communication tools that mentioned by interviewees.

Departments	The availability of communication tools
Senior Executives	Small and large group meetings, visual presentations, email, memos,and reports
Directors	Small and large group meetings, visual presentations, email, memos,and reports
Doctors	Texting, telephone conversation, official meetings, and e-mails
Nurses	Face to face meetings and communications with senior management, some small meetings, reports and BSC intranet
Supporting staff	Small and large group meetings, visual representations, BSC intranet, telephone meetings, email, training, advance copies agenda, memos, formal speeches, reports, and face to face communications.

Second: Emerging Themes

Theme five – Opposition

As already demonstrated, one of the key success factors for adequate implementation of BSC is a fully integrated system encompassing staff in all departments and various levels. In this section, the integration and cooperation among staff and departments at KFSH is explored. Although, no specific questions were designed to address this particular aspect, based on the answers from other questions, opinions can be formed. It can be inferred that there are opposing views within the organisation about the importance of BSC at KFSH and the contribution of each employee to it. For example, below is the opinion of BSC given by Interviewee, **G**, a **director of orthopaedic**:

“I am the quality management liaison for the Internal Medicine Department. However, I am very busy. BSC is obvious to everyone and could be considered a normal exercise. We should not give it that much attention; I believe it would be more productive if the same amount of attention were to be given to our patients instead”
(Interviewee **G**, a **director of orthopaedic**).

Interviewee **Y**'s, a **director of obstetrician-gynecologist**, answer to the questions, ‘which perspectives are included in the BSC?’ is as follows:

“I know there are five perspectives. But I focus on three only.”

When asked about the understanding of the BSC process, interviewee **W**, a **nurse**, said:

“I do not understand much about this BSC – I learnt some during the orientation week – but I focus on nursing.”

Such statements indicate a range of active opposition to passive opposition both for approximately 60%, 40% of senior and junior levels, respectively. This opposition mentioned that the staff at the KFSH think that they have in depth understanding of the

BSC but in reality their understanding is superficial. The superficial understanding making the BSC a blurred strategy.

Theme Six – Power distance

Power distance plays a major role in communication, which tends to have a direct impact on the integration and the success of BSC in an organisation. Communication is directly linked to change management which falls under the auspices of leadership. Therefore, the status of power proximity between the senior executives and the lower level of management is explored here. When asked ‘is the BSC developed by management (top-down) or is it developed within the departments (bottom-up)?’ interviewees gave the following answers:

“In KFSH, we implement BSC from top to bottom. I feel we have a proactive management – results focused and decisive in the face of changing circumstances” (interviewee **AI, a director of planning and development**).

“For BSC, we employ our usual communication, via small and large group meetings, visual presentations, email, memos – and reports. It is rarely that the top management listens to suggestion from lower management staff” (interviewee **AH, a director of total quality management**).

“Communication between the inter-connected elements of BSC is essential if progress is to be maintained. For BSC, we employ our usual communication, via small and large group meetings, visual presentations, email, memos – and reports” (interviewee **AK, a director of human and resource**).

To other questions, related to communication and power distance: ‘how frequently do you write comments or feedback on BSC? **AI, a director of planning and development**, replied:

“I advise and participate rather than provide feedback” (interviewee **AI, a director of planning and development**).

AK, a director of total quality management, also mentioned

“I write comments and feedback monthly. The hospital management considers my feedback and responds to it” (interviewee **AH, a director of total quality management**).

“We review the BSC monthly, and I play a major part in the process” (interviewee **AK, a director of human and resource**).

Interviewees AI, AH, and AK confirmed that they meet up to discuss the BSC perspectives with lower management levels at least one time a year. In particular, **AH, a director of total quality management said that:**

“It is not necessarily that the lower levels know about the details of the BSC. The annual meeting is to inform them about our plan in the next year. At the end of the meeting we give them a space to comments or to give feedback. I think the annual meeting is enough to keep them informed about the BSC” (interviewee **AH, a director of human and resource**).

In getting and processing the feedback **AI, a director of planning and development, said**

“We get feedback and comments from other department and we consider it but it is not necessary to discuss the comments or feedback with them as we are busy on our main job”

AK, a director of human and resource, also said:

“On the daily basis the operational levels should communicate with each other effectively to run the business. However, in strategic level the executive managers are in charge in fulfilling the long term

objectives. I think, the annual meeting give space to the lower management levels to know what we do”.

Such answers are confirmed by the line staff:

“On a daily basis, the general hospital management considers my feedback and comments. Our comments are only related to the short term activities. The long term activities are much related to the executive managers and I know about it in the annual meetings. We only contribute in the daily decisions. I have never discussed the strategic performance with others. The incentives are not linked with the performance of the BSC”. (interviewee **AE**, a nurse).

“I write up the incidents as they happen on a daily basis, including comments and feedback as it relates to the BSC. And my director considers my feedback as useful. However I don’t have the same power to contribute in strategic decisions. In the annual meetings we get some CDs and report about the performance of the BSC”. (interviewee **Y**, clerk).

“My focus is on the daily activities and in our meetings we discuss operational issues. The strategic decisions are the focus of the executives. Executives are busy in running the business strategy”. (interviewee **Z**, customer relation).

Theme seven – Self-deception

Based on observation and interview data, there seems to be a perception that BSC at KFSH is at its third generation, while the first generation is used. The following are different questions posed about the generations of BSC:

‘Is BSC used in the reward system? (if yes) How is BSC used in the reward system?’

“We have discussed this in the quarterly meeting, and the reward system is under consideration; we are thinking to reward those who attempt to link the strategies – and develop departmental progress to achieving the hospital’s goals” (interviewee **AI**, a director of planning and development).

Interviewee **A, haematologist**, when asked about his understanding of BSC, replied:

“Yes, I understand perfectly. I have a professional team to carry out all the duties required to ensure that the BSC process runs smoothly on a day to day basis. They report to me if there are areas of weakness that need further focus.”

And yet, when we asked interviewees ‘which generation of BSC are you using? Do you know the difference between them?’ **interviewee AI, a director of planning and development** replied:

“I do not know.”

Another example is illustrated by an answer given by interviewee **AK, a director of human and resource**, when asked ‘which generation of BSC are you using? Do you know the difference between them?’

“I am not sure, but I think we are in the second generation” (Interviewee **AK, a director of human and resource**).

This result indicates that even directors don’t have awareness on the generation that fit their business. Approximately, 79% of executive managers show that they are not aware of the generations of the BSC. Thus, they don’t know which generation help them to achieve the business strategy.

Theme eight – Breakdown of/low level of communication with stakeholder

To the questions, ‘is the BSC used for benchmarking with other clinics/hospitals? (if yes) How the benchmarking is accomplished?’ interviewee **AI, a director of pharmacy**, replied:

“No, we do not compare our benchmarks with local hospitals, but we follow the international benchmark standards.”

interviewee **AL, a director of pharmacy**, when asked the same question replied:

“We apply the benchmark standards sufficiently.”

When the same interviewee was asked to give details on the sufficient application of benchmarking, he replied

“I cannot give you details”

This result suggests that executives do not have a proper communication system neither with the internal nor the external stakeholders. **AI, a director of planning and development**, mention that:

“We only discuss the performance of the BSC with other executives... we don't compare our performance with other hospitals, simply because the KFSH is the largest. I think we don't need to communicate with the local community since the perspectives of the BSC should be considered by top managers only. It is hard for stakeholder to understand the BSC.”

In addition 85% of executives think that they should not communicate the BSC with the external stakeholder since the BSC is an internal piece of work. This result indicates that executives communicate the BSC perspectives only with the top management levels. The external stakeholders such as the local community, competitors, and governments are marginalised.

Theme nine- Resistance to the change

The researcher inferred from the statements obtained from the semi-structured interviews that some of the respondents are against the implementation of BSC. For example, some lower management level interviewees do not understand the real objectives beyond the implementation of BSC and hence, their answers reflected some personal concerns.

Interviewee **V, a nurse** stated:

“We think that following the implementation of BSC we may lose our job.”

Interviewee **R, a nurse**, said:

“When they applied BSC in our department, the first thing came to my mind was that KFSH is going to perform downsizing.”

Interviewee **S, a clerk**, said:

“BSC for me is for cost-effectiveness in which business is applied to replace people with technology. They spent time and money in this project and I only know the measures related to my department.”

Z, a customer relations, said:

“I do not know why they need this measure and how it works. Thus, I think BSC is not helpful for our level... BSC is designed for other businesses ... maybe industrial businesses where the competition is high.”

In contrast, the answers show that resistance to BSC has gradually disappeared from middle management and top management levels. In the top and middle management levels, 82% of the interviewees are satisfied with BSC. This leads the researcher to conclude that the majority (79%) of lower management levels are not satisfied with BSC and for this reason they are against it. The above results confirm the quantitative results that employees in the lower management level do not know the objectives and the important of the BSC for the business strategy. Accordingly, they resist the implementation of the BSC.

6.7.4 Historical Observation analysis

6.7.4.1 Observation

This section illustrates the researcher’s professional experience while working at KFSH in several positions from 2002 to the middle of 2008. This section particularly focuses on the HEWITT Company’s mission to setup BSC at KFSH between 2006 and 2008. Followed by HEWITT, McKenzie came to follow up implementation and provide assessment for the performance BSC at KFSH. The researcher joined the hospital in

2002 as an executive on duty in the protocol department, and as the night manager until 2003. The latter role encompassed the responsibilities of decision-making, problem solving, as well as emergency response. In 2004, the researcher was promoted as a supervisor for the protocol department. His responsibilities then included looking after the royal family as patients, assisting the VIP patients in the western area of Saudi Arabia, looking after the bequests of the government, and running the protocol clinic. In 2005, the researcher became the Protocol Director of hospital management. He was in charge of managerial tasks such as running meetings; reporting; supervising the staff; following financial aspects of the department; monitoring the overall progress in the department; managing medication; consultation; organizing appointments for surgeries; urgent medical cases; ensuring availability of medical stock; and assisting the Royal clinic and the Crown clinic.

As KFSH endeavoured to be one of the leading hospitals world-wide, KFSH adopted BSC in early 2006 as a performance measurement tool. KFSH selected the American HEWITT Company to implement BSC, due to its extensive experience in implementing this technique in several hospitals across the US. HEWITT was also employed upon the recommendation from the Joint Commission International Approval and the American Academy of Continuing Medical Education.

HEWITT's initial action was to conduct meetings with senior executives to collect information about previous performance measurements at KFSH. This action was followed by meetings with mid-level management represented by KFSH department directors and ended with meeting with the operational staff, to enquire about their daily activities. HEWITT then constructed a questionnaire to measure staff understanding of the hospital strategy, mission, and core values. The data collection process took four months and the results were presented to the senior executive. The

quantitative assessment applied by HEWITT recommended adopting BSC as the best approach to measure KFSH performance.

During the assessment conducted by HEWITT, the operational staffs were very reluctant to cooperate. The attendance sheet shows that few employees attended these meetings, which may indicate disinterest in the program. In addition, analysis of comments from these meetings shows that employees were not happy with the idea. A few employees approached their management to find out what the real aim of the questionnaire was. Questions such as “what is behind the individual meetings with operational staff?”, “is KFSH planning to reduce some services?”, “is there any intention to reduce the staff?” were asked. This indicates that employees were fearful of losing their jobs if they participated with the survey.

At present, the hospital has few professionally trained career managers. These few management professionals are stretched to the limit as the majority are essentially medical staff who has been appointed to management posts. As such, they do not have the requisite training and experience and have a heavy workload. There is an urgent requirement for the appointment of full-time, specifically trained professional managers in the hospital, rather than appointing health professionals such as surgeons. Health professionals should give their full attention to the professions they were trained to undertake (e.g. working on the wards or operating theatres) rather than dividing their time between medical and managerial responsibilities. This division of labour means that neither role can be adequately fulfilled. Thus, daily activities, staff supervision, and quality standards monitoring are often overlooked. It is due to this practice that employees are frequently unaware of their workplace rights.

The McKenzie Group undertook close observation of departments at KFSH location, noted day to day activities, and monitored the operation in terms of time taken, resources used and time costs. The McKenzie Group's management consultants demonstrated clearly that higher level staff dedicated fulltime to monitoring the daily activities of lower level staff members and resource use. McKenzie showed that if hospital management had the time to focus on BSC, they would get the same results of close monitoring. Additionally, the McKenzie Group found that staff working overtime was excessive and unnecessary. Instead of paying a large overtime bill at the end of the month, for an operating style that was far from efficient, the consultancy company suggested that the hospital hires an extra staff member. This would achieve a lower overtime bill and the extra staff member could also help improve the efficiency of the operation. In other words, an 'extra pair of hands' on the ward would help to speed activities and save money.

Based on the research of the McKenzie group, it can be postulated that if hospital had hired professional managers, this would have cost less than paying a consultancy firm. Further, investment in staff training, such as funding tertiary management courses, would pay dividends. After McKenzie delivered its findings and concluded its consultancy mission, KFSH senior management still felt a lack in knowledge in regards to monitoring and controlling BSC.

6.7.4.2 Historical observation

The following section focuses on the implementation of BSC in the mid of 2008. During this period, the quality department took charge of running the BSC programme yet there was a lack of departmental employees familiar with BSC technique. However, the Planning and Monitoring department should be in charge in running BSC since it is the body that is responsible for linking the business strategy with the BSC. Furthermore,

when looking at KFSH strategic map during the same period, it was observed that there is no mention at all to BSC. The directors of the quality department provided information about BSC only to the employees who were responsible for tracking the indicators of the BSC technique. Instead, the directors should have shared it with the whole staff.

BSC should include a weighting between financial and non-financial indicators however, KFSH only focused on non-financial indicators. The department directors announced that employees were not interested in interacting with BSC in 2009. The quality department limited BSC to their department, resulting in a lack of necessary understanding of the purposes, goals, phases, and generations of BSC. In deploying BSC, KFSH department directors only used communication tools such as face to face and group meetings with the assigned team to enhance the staff understanding of the mission, vision, and core values. However, Kaplan and Norton (2001a) recommend the use of many tools and to post the brochures of BSC everywhere.

It was observed in 2009 that the senior managers benefitted from face to face communication. For instance, in the nursing department a higher understanding was observed in senior nursing staff than in the supportive nursing staff. This might be because the nursing department used their academic qualifications and experience to teach their staff about BSC implementation in the hospital. In the medical care units, the level of knowledge was high and could be attributed to the number of training sessions attended. Another factor could also be that most of the physicians obtained their degrees from outside of the KSA, and hence they are more familiar with strategic tools such as BSC. What follows is an observational analysis of two of BSC perspectives at KFSH. It is important to note that the researcher's observation is limited to the

following two perspectives and this is due to KFSH policies that limit access to information on the remaining perspectives:

6.7.4.3 Quality of care

The quality of care perspective at KFSH aims to identify the satisfaction level of the patient. The patient satisfaction rate was measured using a survey filled in by the patient about their overall experiences in regards to the services provided. However, such surveys did not provide accurate data because patient privacy was lacking due to presence of nurses and doctors. The researcher suggested these kinds of surveys be filled automatically by specific screens located in different clinics in order to give patients more freedom to express their opinion. In addition, all the aforementioned objectives refer to a customer's (i.e. a patient's) perceptions of the provided services and focus on the core operations of KFSH, rather than the support operations.

The importance of human resources in a healthcare organisation is reflected in the strategic objectives of the quality of care perspective. These objectives are as follows: a) increasing employee satisfaction and loyalty b) increasing the effectiveness in resource utilisation. Failure in meeting these objectives was due to the fact that the quality management group did not evaluate the hospital staff's awareness of the BSC process. In addition, the quality management team did not check whether or not the staff had a clear understanding of the vision, mission and core value of the hospital. Such understanding is of course the foundation for a successful implementation of quality of care in KFSH.

6.7.4.4 Employees perspective (learning and growth)

The questionnaire and interviews revealed that though the employees demonstrated some knowledge about BSC, they only knew the five perspectives and the

corresponding indicators. This indicates a need for more training to developing their skills. Improving effective communication can be suggested as an example of such skill development.

Lack of effective communication was a major pitfall. Improving the relationship between the doctors and patients harmoniously is an important factor to improve performance. Based on the researcher's experiences, it was observed that previous objectives were often supplemented with additional actions such as continuous training of employees, encouragement of medical research, cost-saving programs, etc. However, these measures were not harmonised across the management, the medical, the nursing, and the support personnel of the organisation, and thus failed to improve the education of staff equally across the board.

One of the implications of educational failure was that the Learning & growth perspective failed. The learning and growth perspective includes strategic objectives and is mostly oriented towards know-how transfer, adoption of new technologies, and general ability of the organisation to effectively respond in a rapidly changing environment. Such failure had a particularly led to negative effect on KFSH strategic objectives. The last strategic objective is reported under the umbrella of the organisation's business processes, emphasising the necessary internal activities and focusing on hospital productivity. However, not much incentive was offered to the employees for participating in training sessions. For example, before implementing BSC, the incentive system included a bonus system for employees' children's school fees or flight tickets. These bonuses and incentives were later removed with the implementation of BSC.

It was also observed that in their attempt to make KFSH development sustainable, creating financial stability, the hospital management focused on cost-

control and resource distribution. Based on this reasoning, the strategic objectives of KFSH were first developed and then assigned to each of the perspectives of the organisation's BSC. The effect of this action was that KFSH focused on the financial long-term viability of its operation, such as reducing the cost of services, increasing liquidity, decreasing debts, and decreasing operating expenses. However, since KFSH is a government-funded public organisation, little importance was given to profitability and the short-term financial outcomes in general. Crucial financial measures guaranteeing that KFSH would be able to efficiently operate were ignored. For example, private clinics and insurance services to meet the demand from other private referrals in the future were overlooked.

6.8 Summary and conclusion

This chapter questioned the level of understanding of BSC at KFSH and the linkage of BSC perspectives with the business strategy. In addition, it examined the determinants of successful BSC implementation. The research applied triangulation data analysis, encompassing the quantitative and the qualitative. The quantitative data analysis indicated that the staff members at KFSH possess only a moderate understanding of various perspectives of BSC. Such an indication is in agreement with the observations made throughout the implementation of BSC at KFSH, while the researcher was an employee there. In addition, results show that employees fail to link the BSC perspectives with the strategic map. This implies that a consistent lack of understanding of BSC by the lower management leads to a lack of interest of from the employees. In brief, the weighing of financial and non-financial perspective is dependent on how it is perceived by different management levels. Furthermore, the analysis shows that in general, the level of understanding of BSC by the clinical staff is not significantly different to that of the non-clinical staff. However, the findings suggest

that clinical employees show higher understanding of the medical care perspective and non-clinical staff members' show higher understanding of the financial perspective.

A comparison of the performance measures for each perspective prior to and after the implementation of BSC was also made. This was executed using the data from the annual reports of KFSH, to examine the performance change. The results showed that performance measures of the five perspectives did not significantly change following the implementation of BSC in 2006.

In the second section, the semi-structured interview method was applied to evaluate the understanding of the KFSH's BSC strategic map. This was primarily concerned with discovering whether top, middle, or lower management levels of KFSH had different opinions of the BSC perspectives. In addition, the analysis handled whether the perception of the success factors of the BSC perspectives existed at these different levels. The analysis also focused on the importance of BSC to KFSH.

The results of the qualitative phase concur with those of the quantitative one. In particular, the thematic analysis of the interviews shows that the understanding of BSC is mainly limited to the senior managers. However, analysis of the semi-structured interviews affirms the fact that even some senior managers face difficulties in understanding the BSC perspectives. This result is consistent with the explanation of Kaplan and Norton (2004b) that a common difficulty is that some of the top managers do not adequately digest the BSC perspectives. In addition, the cause and effect relationships were not properly understood or applied.

Based on these observations, it would appear that the BSC utilised at KFSH is limited to the first generation. The analysis shows that the non-financial perspectives are disproportionately weighted over the financial perspectives. Furthermore, the

communication tools including the management information system do not support BSC as a strategic tool.

Interestingly, the study shed the light on the importance of the Saudi culture as an emerging theme. The interview analysis suggested that the leadership style at KFSH is autocratic since the flow of information seemed to be inhibited and information was sequestered at the top levels. The power distance and autocratic leadership style, in combination with an inadequate launch of BSC, meant that the steps recommended by both Kaplan and Norton (2001a) and Kotter (1996) were not followed.

Importantly, the high power distance in the Saudi culture inhibits the flow of information and in turn creates some challenges for successful BSC implementation. Some seniors expressed their fear of the risk that BSC may bring. Thus, seniors and other employees were reluctant to be involved with BSC. These results were also confirmed using the observation methods. In the observation analysis, the staff members of KFSH showed signs of resisting the implementation of BSC in the early stages.

In conclusion, research has demonstrated that BSC is not successfully implemented at the KSFH for a number of reasons. These reasons include being lack of communication, education, and the autocratic management style.

Chapter 7 – Discussion and conclusions

7.1 Introduction

This chapter aims to discuss the findings of Chapter 6 and to examine the suggested hypotheses and propositions. Then, the main research questions are answered using the triangulation approach. Through this approach, once the situation at KFSH is established using survey and secondary data, we then move to complement the discussion through the use of qualitative data analysis – the semi-structured interviews and historical observation. The conceptual framework is also discussed in the light of triangulation findings. The hypotheses and the propositions are derived from the conceptual framework discussed in Chapter Three.

7.2 Hypotheses and Propositions

The researcher uses propositions and hypotheses derived from the literature review to state the expected research results. Propositions are inferred qualitatively whereas hypotheses require data and measurement to enable the researcher to examine them statistically. Six hypotheses are examined to evaluate the level of awareness for the perspectives of BSC. Four propositions are also discussed to evaluate the success rate of BSC implementation.

7.2.1 Hypotheses

In this section, the researcher examines the testable hypotheses as in **Table 7.1**. To examine H_1 (employees at KFSH show significant understanding of BSC perspectives), the mean values of understanding the perspective of BSC and the t-test are estimated for each BSC perspective separately. H_1 includes five secondary hypotheses, H_{1a} through

H_{1e} , which hypothesise that staff at KFSH understands each of the perspectives individually. **The results in Table 7.1** shows that all mean values of the BSC perspectives are significant at the 1% level. **Table 7.1** also shows that employees at KFSH understand the five perspectives of BSC, since the mean Likert score values are significantly greater than 3. Thus hypothesis H_I and the secondary hypotheses H_{1a} through H_{1e} , can be accepted and it can be assumed that the measures, goals, and concepts related to each perspective are also understandable.

Table 7. 1 Examines the understanding of the BSC perspectives and the linkage

BSC perspectives and the linkage	Mean	T-test	sig
Understanding the quality of care perspective	3.65	14.37	0.000
Understanding the internal process perspective	3.81	24.13	0.000
Understanding the learning and growth	3.72	16.01	0.000
Understanding the medical care perspective	3.71	17.27	0.000
Understanding the financial perspective	3.60	14.21	0.000
Understanding the linkage (cause-and-effect) of BSC	2.80	-8.20	0.000

As shown in **Table 7.1**, employees do not show significant understanding of the linkage (cause and effect) between BSC perspectives and between perspectives and the company strategy. This is demonstrated by the mean value on the Likert scale being less than 3. H_2 (*employees at KFSH show significant understanding of the cause and effect (the linkage) of BSC*) is therefore rejected. This result indicates that the BSC perspectives are not linked with the business strategy and are not coordinated with its mission, vision, and objectives. As suggested by Kaplan and Norton (1992, 1996, and 2001a), failure to understand the causal relationships means that employees at KFSH may neglect to link an organization’s long-term objectives with local operations. Furthermore, this failure means that employees do not link outcome measures with strategic management purposes which cause failure in fulfilling the business strategy. Consequently, a diversion in the business strategy occurs.

BSC can be problematic when linking an organisation's objectives and local operations, which appears to be a problem within the KFSH because staff in charge of running BSC fails to integrate the operation level with the business strategy (Ittner *et al*, 1997). Lack of understanding of the alignment between items within the scorecard may result in confusion when translating the strategy (Thompson and Mathys, 2008). Some clients of BSC who do not understand the linkages therefore often fail to recognize that measures are needed to assess process performance and that process measures need to be related to meeting key objectives like customer satisfaction.

Many reasons have been suggested to explain why employees fail to link the BSC perspectives with the strategy, and many of these are relevant to KFSH. A main reason is that the strategic map is not understandable by both the top and the lower management levels. According to Kaplan and Norton (2001b), the strategic map is a guideline to understand the link between the BSC perspectives and the strategy, and is thus of paramount importance. They mention that the strategic map should be everywhere in an organisation and known to all. KFSH fails to make BSC everyone's job, since a considerable number of employees mentioned that BSC is related to the top management level only and that they were not involved in setting the goals related to BSC. Kaplan and Norton (2004a) claim that the idea of BSC depends on everyone in the business and that all management levels should translate the strategy.

Another observation is that employees at KFSH think that BSC is a performance measurement tool not a cause-and-effect strategic tool. In addition, they think that KFSH is unable to include the stakeholder perspective in the strategy, due to the public-sector nature of the organisation. Underestimating the role of stakeholder may inhibit the link between BSC perspectives and the strategy, since this perspective aim to meet stakeholder needs.

According to the answers provided by the employees at KFSH, BSC is not linked with incentives. This suggests that employees are not motivated to link their goals with the KFSH strategy. Kaplan and Norton (2004b) explain that linkages can be achieved by linking the employee's goals with the organisation's strategy. Thus, if an organisation fails to achieve the strategy, employees fail to achieve their objectives and vice versa.

Finally, the absence of measures and goals set by the lower management levels may inhibit the linkage. Involving all members in understanding the linkage creates a shared language. This is a common understanding of perspectives, their importance, uses, and definitions. The discussion of how specific measures are to be utilized in performance reviews also helps reinforce accountability. In addition, these measures help the units and divisions understand the overall strategic direction the organization is seeking.

Table 7.1 shows that employees at KFSH understand the five perspectives of the BSC, since the mean values are significantly greater than 3. Thus, the researcher confirms that KFSH applies the first generation of BSC. Applying the first generation of BSC means that employees at KFSH understand only the five BSC perspectives. Similarly, understanding the second generation means that employees at KFSH understand the linkages (cause-and-effect) of BSC. As discussed above, employees did not understand the linkages, and therefore BSC at KFSH is limited to the first generation. Thus H_3 , which states that KFSH “*has a significant understanding of the 1st and 2nd generations of BSC*” is rejected.

To examine H_4 (*KFSH weights the non-financial perspectives greater than the financial perspectives and thus the understanding of the non-financial is greater*), the

BSC perspectives were divided into financial and non-financial. The financial perspective stands alone, while the non-financial perspective comprises medical care, quality of care, internal process, and the learning and growth perspective. The parametric and non-parametric paired t-tests were used to examine the mean differences between financial and non-financial perspectives.

Table 7.2 compares the mean Likert score values for the financial and non-financial perspectives. This table shows that employees at KFSH significantly understand the non-financial perspectives more than the financial perspectives, since the mean values are 3.72 and 3.6, respectively. Both parametric (paired t-test) and non-parametric (Wilcoxon signed rank test) report that the mean value of non-financial perspectives is significantly greater than the mean value of the financial perspective.

Table 7. 2 Compares the mean Likert score values for the financial and non-financial perspectives

Group	Mean	Paired t-test (sig)	Wilcoxon signed rank test
Financial perceptive	3.60	3.33 (0.001)	4.486 (0.000)
Non-financial perspectives	3.72		

The imbalance between financial and non-financial perspectives is in agreement with the findings of Banker et al. (2004), Libby et al. (2002), Lipe and Salterio (2000) who claim that the spread of awareness is often not equally distributed between financial and non-financial perspectives. This result is also consistent with the nature of KFSH being a not-for-profit organisation. Voelker et al. (2001) suggest that in some not-for-profit organisations, the financial perspective can even be excluded from BSC, since financial performance cannot demonstrate success. Accordingly, in KFSH the

researcher did not observe that the financial perspective is considered as a main perspective. Based on KFSH financial documents, the financial perspective has the least inline importance among other perspectives. Furthermore, the financial data is not always accessible even for some of the top managers. This is justified in arguing that the main concern of KFSH is to ensure the quality of service.

Table 7. 3 Compares the mean values of the understanding of BSC perspectives by clinical and non-clinical staff.

	Clinical	Non-Clinical	Mean differences
	Mean	Mean	Sig (t-test)
Quality of care	3.68	3.63	0.541
Internal process	3.68	3.64	0.725
Learning and growth	3.76	3.69	0.289
Medical care	3.75	3.68	0.14
Finance	3.55	3.96	0.075
General Understanding of BSC	3.76	3.73	0.624

We next examine H_5 , which posits that “*Clinical staff demonstrates a higher understanding of the BSC perspectives than the non-clinical staff.* To examine this hypothesis, the researcher compared the mean Likert values of understanding the BSC perspectives between the clinical and non-clinical employees at KFSH. The t-test was applied to estimate the mean differences between the clinical and non-clinic employees as independent samples.

Table 7.3 shows that the clinical and non-clinical staffs generally has a similar level of understanding of the BSC perspectives (3.76 and 3.73, respectively). Statistical tests document no significant difference at the 1% level between the two groups, leading to the rejection of H_5 .

To investigate this more closely, the secondary hypotheses, looking at each perspective individually are also examined. The majority of perspectives were

understood equally well by clinical and non-clinical staff, leading to the rejection of H_{5b} , H_{5c} and H_{5d} , (quality of care, internal process, and learning and growth perspectives respectively). There was a trend towards the medical care perspective being better understood by clinical staff than non-clinical (H_{5a}), but this was not statistically significant at the defined alpha value of 0.05. Similarly, there was a trend towards better understanding of the financial perspective (H_{5e}) by non-clinical staff, but this was also not significant at the pre-defined level. Consequently, H_{5a} and H_{5e} were also rejected. The researcher assumes that the slight discrepancy between the understandings of the financial perspective arises because operational managers or employees focus on financial perspectives more than the medical staff.

To test H_6 , the procedures suggested by Davis and Albright (2004) were followed in order to determine if a change in performance indicators took place after the implementation of BSC. BSC was implemented at KFSH in January 2006; hence, the data covers 4 years before the implementation of BSC and 4 years after the implementation. The year 2006 was excluded as it is the event from which the effects of BSC should be observed. Due to the small number of observations (9 years) in the sample, the non-parametric Wilcoxon signed rank test was used to determine whether a difference exists between the pre- and post-implementation phases. Given data availability constraints, the changes in long-term performance of only 3 perspectives are examined. The medical care, quality of care, and learning and growth perspectives are investigated using data published in the KSFH annual reports in the period covered.

Table 7.4 presents the changes in the quality of care performance indicators following the implementation of BSC. **Table 7.4** reports that none of the quality of care indicators improved significantly after the implementation of BSC, as confirmed by

Wilcoxon signed rank test¹⁰. Thus, H_{7a} , (following the implementation of BSC, the quality of care perspective is improved), is rejected.

Table 7. 4 Presents the changes in the quality of care performance indicators following BSC implementation.

Indicator	Pre-BSC 2002-2005				Post-BSC 2007-2010				Change BSC	
	Mean	Median	Min	Max	Mean	Median	Min	Max	Ch	Sig(K-W)
Inpatients' Satisfaction	0.905	0.905	0.900	0.910	0.953	0.950	0.940	0.970	0.047	0.060
Outpatients' Satisfaction	0.895	0.895	0.890	0.900	0.873	0.875	0.850	0.890	-0.023	0.100

Table 7.5 presents the changes in the medical care performance indicators after the implementation of BSC. **Table 7.5** shows that most of measures of medical care did not change, but a few measures did improve. For example, the performance indicator of organ transplants (bone marrow, kidney, liver, and heart transplants) significantly improved at 5% level, following BSC implementation, annual report (2010) . The analysis of the questionnaire shows that KFSH focused more attention on providing transplantation services. In the interview, the research asked about this result, some senior managers (65%) attributed the improvement to the following two reasons: i) doctors and operational managers in the transplant department are highly qualified relative to other departments. ii) The transplant department applies international benchmarks and is highly organised compared with other departments. These two results are associated with the implementation of BSC at KFSH and thus cannot be attributed as so. Thus, H_{7b} (following the implementation of BSC the medical care perspective is improved) is partially rejected because only organ transplant indicators improved.

¹⁰ Parametric test (paired sample test) was also run and the result remained unchanged

Table 7. 5 Presents the changes in the medical care performance indicators following BSC implementation as explained in quantitative analysis in chapter 6¹¹.

Indicator	Pre-BSC 2002-2005				Post-BSC 2007-2010				Change BSC	
	Mean	Median	Min	Max	Mean	Median	Min	Max	Ch	Sig(K-W)
Occupancy Rate	0.87	0.87	0.86	0.89	0.87	0.87	0.87	0.87	0.00	1.00
Average Length of stay	9.93	10.00	9.60	10.20	10.87	10.87	9.84	11.90	0.94	0.56
Inpatient days 10 ³	216	216	209	222	239	239	237	241	2	0.12
Total Operating Cases 10 ³	1.24	1.25	1.23	1.25	1.27	1.27	1.22	1.32	282	1.00
Outpatient Clinic Visits 10 ³	598	613	531	648	762	776	730	779	164	0.05
Bone marrow Transplant	205	206	178	239	280	264	264	312	74.8	0.02
Kidney Transplant	114.8	111	91	141	144.75	145	137	152	29.9	0.03
Liver Transplant	23.00	29.00	8.00	37.00	44.33	46.00	41.00	46.00	21.3	0.02
Lung Transplants	2.00	3.00	0.00	3.00	3.50	3.50	0.00	7.00	1.5	0.84
Pancreas Transplants	1.00	1.00	0.00	2.00	3.00	3.00	0.00	6.00	2.0	0.68
Heart Transplants	6.40	6.00	2.00	12.00	17.33	19.00	14.00	19.00	10.9	0.02

Table 7.6 presents the changes in the learning and growth performance indicators after the implementation of BSC. The learning and growth perspective includes education and research and employees' performance. **Table 7.6** Panel A, shows that training and workshop programs slightly but significantly increased, while other education and research measures did not significantly change following the implementation of BSC. In addition, **Panel B** shows that the performance measures related to employees did not significantly change in response to BSC implementation. Thus, H_{7c} (following the implementation of BSC, the learning and growth perspective is improved) is rejected overall, since only one indicator in the education and research domain showed improvement.

¹¹ This analysis is discussed in Chapter 6. The researcher collected data from the annual reports and some published papers from 2002 to 2010. This data covers the main indicators that were applied in KFSH pre- and post- BSC implementation. The "change" is calculated as the mean value of the BSC perspectives in the period of the post-implementation of the BSC minus the mean value of the BSC perspectives in the period of the pre- implementation of the BSC.

Table 7. 6 Presents the changes in the learning and growth performance indicators following BSC implementation as explained in quantitative analysis in chapter 6 ¹² .

Panel A: Education & Research										
Indicator	Pre-BSC 2002-2005				Post-BSC 2007-2010				Change BSC	
	Mean	Median	Min	Max	Mean	Median	Min	Max	Ch	Sig(K-W)
In-house Trainees	1362	1379	1091	1600	3192	3140	2976	3461	1830	0.034
Symposia and workshops	13	15	7	17	21	21	20	21	7	0.032
Train. American Academy of Continuing Medical Education(hrs)	1729	1872	1145	2029	3392	3392	3197	3587	1663	0.064
Publications	127	127	106	148	139	139	124	153	12	0.439
Continued Medical Education hours	1934	1934	1838	2029	3039	3197	2333	3587	1106	0.083
Panel B: Employees' Performance										
Physicians	664	693	561	737	679	679	566	791	14.83	0.564
Nursing	1668	1666	1518	1819	2447	2264	2224	2853	779.33	0.050
Tech Health.	1668	1666	1518	1819	2114	2114	1374	2853	445.83	1.000
Tech Non-health.	872	859	795	962	839	839	789	888	-33.50	0.564
Admin Services	1715	1715	1642	1787	1851	1851	1324	2378	136.50	1.000
Labour	1219	1219	1199	1238	1266	1266	1181	1351	47.50	1.000
Total Employees	7903	7818	7788	8104	9425	9425	8401	10449	1521.6	0.083
									7	

7.2.2 Propositions

The first proposition suggests that BSC as strategic management tool produces a continuous learning environment that qualifies managers and employees adequately understand the BSC perspectives and link them with the business strategy. The quantitative results in Chapter 6 established that employees at the KFSH have a general understanding of the BSC perspectives. However, they do not have in-depth understanding of the linkage of these perspectives to the strategy. Qualitative analysis in Chapter 6 also shows that 32% ¹³ of senior executives have a superficial understanding of the perspectives that does not go further to link between these perspectives.

¹² This analysis is discussed in Chapter 6. The researcher collected data from the annual reports and some published papers from 2002 to 2010. This data covers the main indicators that were applied in KFSH pre- and post- BSC implementation. The "change" is calculated as the mean value of the BSC perspectives in the period of post-implementation of the BSC minus the mean value of the BSC perspectives in the period of pre- implementation of the BSC.

¹³ See Table 6.29 Chapter 6.

Qualitative results also indicate that an employees inadequately link the BSC perspectives with the business strategy.

The researcher finds by using the questionnaire analysis that there is a consistent lack of understanding of BSC at the lower management levels including nurses and coordinators. This shortage in understanding is alluding to a lack of interest from the employees in lower levels as explained by the interviewees. The interviewees, in particular nurses and coordinators, mentioned that they don't take adequate training to understand what the BSC for and insufficient support from to management. Thus, they show less interest.

This finding concurs with that of Kaplan and Norton (2001b), who state that less than 5% of the workforce understand their organisation's BSC strategy. Failure to create a continuous learning environment can be attributed to several causes. For instance, most executives (76%) in KFSH claim that the problem with BSC is how to deploy it to the lower management level. This problem was also raised by some of the interviewees. Most of employees in the lower management levels, i.e, the non-exective staff, stated that they had no clear idea of what BSC is or how it operates. Though that more than 89% of the senior executives and directors have far better understanding of BSC and its measurement, they admit that the staff at lower levels in the organisation find it more difficult to grasp BSC. The excutive managers attribute this result to the idea that the staff in the lower management levels are not cooperative and get feared from the implementation of the BSC. However, the staff at the lower levels claim that they don't get enough training, the BSC is limited to the top levels, the top levels are not sharing the knowledge, and the BSC may not fit hospitals.

Employees in the lower management levels are also inadequately trained on how to apply BSC. This is indicted by the relative gap in understanding between staff from

different levels of the organisation demonstrated above. Inadequate understanding of BSC can be for two potential reasons, both of which were identified during the interviews. Firstly, the training in BSC is limited to the seniors according interviewees in the lower management levels. Secondly, the senior staff intentionally tries to keep knowledge from their subordinates as a way to exert power through the 'power of information'. Another reason that a learning environment was not generated is that employees in lower management levels thought that BSC was a measurement tool useful for the top management level but not to them. The BSC according to the understanding of lower management staff is not an educational management tool. The process of implementing the strategic map should generate a continual educational process. The top management level underestimates the important of lower staff and the important of educational tool. For instance, the executives do not provide diagrams, maps, stickers, internet and lifelong courses to support the educational process. Executives only use irregular meeting to communicate and educate individuals in the lower levels. To understand the BSC, employees learn about customer segmentation, variable contribution margin, and database marketing. Instead of assuming that the staff is incapable of understanding these ideas, executives make concerted efforts to educate employees at all levels of the organization about key strategic components. According to Kaplan and Norton (2001b) ideas and learning emerge continually from within the organization. Rather than waiting for next year's budget cycle, the priorities and the scorecards are updated immediately. Instead of being an annual event, strategy formulation, testing, and revision became a continual process. Thus, in the KFSH the BSC fails to communicate and educate the organization about the new strategy. The thematic analysis confirms that 83% of executives at KFSH attributed the failure of BSC to the lack of knowledge from all management levels. However, 79% of lower

management individuals think that executives are responsible about the lack of awareness. In summary, managers do not create an environment of awareness that helps employees at the lower levels to be involved in the whole process. Managers, don't share knowledge or communicate data with lower management staff.

In the light of the first proposition, the researcher concludes that employees have limited awareness associated with BSC. In addition, the employees fail to create a continuing educational process and fail to link BSC with the business strategy.

The second proposition predicts that the implementation of BSC may improve the business performance. However, analysis of the secondary data showed that the performance measures related to BSC perspectives of BSC did not change significantly. Only the transplantation department experienced improvement following the implementation of BSC. The semi-structured interviews revealed many reasons that BSC failed to increase performance measures. For one, and as discussed above, BSC at KFSH does not link the five perspectives with the business strategy. Some seniors (35%) mentioned that the measures were ineffectively reviewed and tracked. The top managers did not involve the lower management levels in reviewing the measures. In addition, data related to the measures were limited to use by the top management level and were not disclosed at the departmental level. Thus, departments may face difficulties in reviewing their performance.

It was also observed from the interview and from reviewing the documents that KFSH has no benchmark to compare their performance against. The revised accounting and financial documents by the researcher show that executives evaluate the KFSH performance based on the historical performance. They compare the performance of the BSC perspectives with the previous years. The interviewees in particular executives

mentioned that they compare the BSC measures with the previous years and they don't compare these measures with competitors or with industrial. Executives mentioned that it is hard to compare KFSH's performance with for profit organisation performance. In addition, KFSH is the only hospital in the **KSA** is applying the BSC.

Furthermore, approximately 68% of senior executives reported that they do not consider their stakeholders when they review the measures. Thus the measures may not reflect the business strategy. Finally, the performance measures at KFSH are not linked with the personal objectives. People are more motivated when they know that their work is evaluated. Based on the results of quantitative and qualitative analysis, KFSH applies the first generation of BSC, which does not focus on incentives. Speckbacher et al. (2003) explain that the main goal of the third generation is to implement the organisation's strategy through action plans and/or target setting and linked incentives.

The third proposition states that improved business performance should help to achieve the business strategy. In agreement with the qualitative data, the quantitative analysis shows that employees do not significantly understand the linkages between the BSC perspectives and the strategy. From the analysis of the survey, only approximately 18% of the employees link between the BSC perspectives and the strategy. The survey results indicate that the employees are not aware of the strategy, objectives, vision, mission, or the direction of KFSH in general as it shows in **Table 6.29, Chapter 6**. The result also shows that the long-term objectives are not clear. Furthermore, employees document that they do not know how KFSH links performance measures with the objectives and hence the business strategy. Approximately 83% of interviewees mentioned that the cause-and-effect relationship between the measures of BSC and the business strategy is ambiguous. The survey analysis in Table 6.29 Chapter 6 shows that about 80% of the lower management employees show shortage in understanding the

causal relationships. The thematic analysis also shows that the annual budget of KFSH is not linked with long- and the short-term objectives.

The analysis demonstrated that employees were unable to articulate the level of importance measures with the strategy. Furthermore, seniors at KFSH considered BSC as a tool for performance measures not considered a strategic management tool, as was intended by Kaplan and Norton (2001a). Thus in the KFSH, the quality department does not work properly to deploy BSC to the lower management levels or to departments peers. Furthermore, they do not communicate BSC with the external stakeholders. The researcher did not find any document related to the discussion of BSC with the suppliers, the government, or even with the local community.

The fourth proposition suggests that the successful implementation of BSC is determined by the following factors:

A-Internal and external communication

As stated in the literature, the role of communication is to transfer knowledge from the top management level to the lower management level and vice versa. Through the channels of communication, top management should discuss and review the vision and the scorecard component with lower management levels and by doing so produce a BSC's learning environment. This in turn should result in enhancement of the level of understanding of BSC. At KFSH, a traditional media is generally applied to communicate with people. For instance, 85% of top management levels use face to face meetings and group meetings are dominant. KFSH also applies visual presentations, e-mails and reports.

The communication system applied at KFSH is very limited compared with the variety of tools suggested by Kaplan and Norton (1996). Kaplan and Norton (1996)

suggest the use of learning maps, pictures, diagrams, tables, and visual representations. None of these are applied to communicate BSC at KFSH.

Communication also falls short because the director of quality management who is in charge of running and reviewing BSC is specialised in providing medical services and is overloaded. This director is busy and has no time to communicate BSC with other departments as well as with the lower management levels. For example, one of the senior managers, Interviewee, G, **a director of orthopaedic**, explained that *“I am the quality management liaison for the Orthopaedic Dept. However I am very busy. BSC is obvious to everyone and could be considered a normal exercise. However we should not give it that much attention, I believe it would be more productive if the same amount of attention was given to our patients instead.”*

Kaplan and Norton (2001a) suggest that in addition to using multiple media, BSC should be communicated everywhere. Kaplan and Norton (2001a) explain that communication is a major factor for an organisation’s success. According to them, ineffective communication may result in shortage of understanding the strategy; delay in developing buy-in to support the organisation’s strategy; failure in understanding the BSC measurement and management system for implementation the strategy; and delay and problems in providing feedback. Cravens et al. (2010) also demonstrates that tacit knowledge cannot be transferred in the presence of ineffective communication tools. Thus, one might argue that the ineffective communication observed at KFSH may result in the gap between the top management and the lower management levels. In addition, KFSH may not benefit from securing a continuous education system since knowledge is not communicated properly.

The analysis also indicates BSC is not communicated with internal and external stakeholders. 35% of seniors mentioned that BSC measures are not discussed with other strategic seniors. Furthermore, employees at lower levels do not contribute towards discussing the output of BSC which negatively impacts the department performance and in turn the business strategy. In addition, seniors do not compare their performance measures with other competitors, which indicate lack of external communication.

B-The weighting

The qualitative phase shows that since the management of KFSH is dominated by medical staff, the non-financial perspectives are dominant too. The majority of doctors indicated that KFSH focuses more on the non-financial perspectives: the medical care perspectives, the quality of care, and employees' perspectives respectively. **Table 6.32 Chapter 6** shows that majority (89%) of senior managers focus on both financial and non-financial measures. Nonetheless, approximately 88% of the interviewed doctors pay more attention to the non-financial measures. Similarly, about 93% of nurses for instance mentioned that they were primarily concerned with the non-financial aspects such as, high patient numbers and long waiting lists. Nurses also focussed on staff recruitment and training, to provide the appropriate quality of staff, and to meet the standards that the KFSH is aiming to achieve. However, only 7% of nurses stated that the KFSH focuses on both financial and non-financial perspectives with equal importance, because success in both perspectives enables the hospital to meet its strategic objectives.

This result is consistent with the findings of Jones *et al.* (2002) and Voelker *et al.* (2001) that in healthcare organisations, the non-financial perspectives are weighted

higher. In addition, Heberer (1998) demonstrates that BSC perspectives present different weights and asserts that a hierarchy exists between the perspectives replacing the balance.

Such an imbalance of weighting is in line with the essence of BSC. However, Kaplan and Norton (1996) show that at Duke University Hospital the customer perspective is given the highest priority of all the four perspectives. Similarly, at the Yale University School of Medicine, the BSC perspectives have been modified to value the customer perspective above other perspectives.

Luft (2005) examines the use of financial and non-financial measures in a decision-making context. Applying a similar analysis potentially uncovers why KFSH overweighs the non-financial perspectives compared with financial ones. Non-financial perspectives may be viewed as more important because:

i) They are more cognitive (i.e., more meaningful, transparent, and understandable) compared with the financial perspective

(ii) The non-financial perspectives are more related to the KFSH being a medical service institution, as explained by doctors and nurses

(iii) KFSH is a not-for profit organisation, therefore managers have less concern for financial issues

(iv) A considerable number of measures of BSC at KFSH are related to the non-financial perspective.

C-The success of the management information system

According to Chan (2006), most of the examined cases applying BSC failed due to the shortage of information flow through the management levels. A successful management information system ensures that all management levels get the information they need on time. The thematic and observation analysis of the KFSH shows that no such management information system was in place.

The analysis found evidence that information flow was restricted, since only the senior management had access to the BSC results and only they presented these results to stakeholders. It appears that the lower-ranked staff, who are in regular contact with clients and other employees, have no real input in the preparation and interpretation of data. Furthermore, BSC at KFSH has been developed using a top-down approach. This contradicts the advice of Kaplan and Norton (1992) who suggest that BSC should be developed within the departments (bottom-up). The lack of information flow to or from stakeholders explains the inability of BSC to improve the level of performance. Understanding stakeholders' needs is crucial to improving business performance, and in turn, the business strategy.

Olve et al. (2004) suggest that failure of BSC implementation arises due to the failure of the knowledge sharing. Without knowledge sharing there is no learning from other units' goals and targets. Olve et al. (2004) suggest that when management information systems fail, the regular tracking and reporting of measures may also suffer and cause failure of the feedback system.

Ho and McKay (2002) investigate the implementation of BSC in two different companies, one with successful BSC and one that discarded BSC due to ineffectual implementation. In the latter company, failure of BSC was attributed to delayed

feedback and the uncontrollable number of measures. They also found that the top management level had not deployed BSC to the business unit. The findings of Ho and McKay (2002) are consistent with the findings in the KFSH. The reporting system at KFSH is from top to bottom, with a very limited number of reports moving from bottom to top. To conclude, this indicates that the feedback system does not work efficiently in the KFSH.

D-The organisational culture

McCunn (1998) and Bourne (2002) show that culture is a supportive and a beneficial factor for the successful implementation of BSC. Similar findings and suggestions are supported by Decoene and Bruggeman (2006). BSC as a new strategic management system requires some substantial changes in culture within an organization. Mooraj et al. (1999) claim that employees may resist the new changes brought about by BSC because organisational culture is dominated by both national and occupational culture.

It is clear from our thematic analysis that the implementation of BSC is influenced by the national culture of Saudi people. The culture of creating power distance plays a major role in communication, which tends to have a direct impact on the integration and the success of BSC in the KFSH. Hofstede (1984) shows that the power distance in Saudi Arabia is high. Accordingly, the authority is highly centralised with a strong separation between managers and employees, and with little vertical mobility. Interviewee, H, A, a surgeon, mentioned that his chairman is not sharing the information with them. Interviewee, O, a head nurse, revealed that she met her chairman to take orders and it is very rare to discuss it. AD. a coordinator, explained that most of meetings with executives is official.

Hofstede (1984) reported that organisations in KSA had highly centralized systems, were highly controlled and bureaucratic. The same appears to be true of KFSH today. This could be a reflection of the “high uncertainty avoidance” identified as a part of the Arab culture; meaning that managers are not willing to be involved in situations where outcomes are not clearly determined and involve high risks.

Consistent with the argument of Hofstede (1984), our thematic analysis shows that 76% of senior managers do not share the knowledge with the lower levels and limit it for their own purposes. Lower management levels are limited to receiving orders, meanwhile, 79 % of senior staff did not consult the operational staff about BSC and did not explain their role within it. This result indicates that the KFSH is characterized by high power of distance.

According to Kaplan and Norton (2004b), culture is perhaps the most complex and difficult dimension to understand and describe because it encompasses a wider range of behavioural territory than other dimensions. Executives generally believe that applying BSC requires a new business culture at all levels of organisation. This means that people need to develop new attitudes and behaviours. BSC is a cultural change initiative. Thus, the successful use of BSC required the creation of a culture of continual understanding of strategy formulation, measurement, and revision. Due to the culture of creating power distance, employees at the departmental level do not know what the performance measures are or how they are linked with BSC. In addition, they do not know the main goals of these measures. Thus, due to the high power distance, BSC fails to link the measures and the goals with the strategic performance of the KFSH. This result is consistent with the argument of Douglas et al. (2003), that organisational culture determines the nature of linkages between the three sub-systems. These sub-

systems are concerned with understanding the role of goals, measures, and performance management.

E-Resistance and opposition to the change

Our analysis shows that a considerable number of lower-level and executive employees resist the implementation of BSC, in particular in the early stages. The thematic and observation analysis attributes such resistance to several factors. One of the earliest problems was that BSC was not introduced properly to the staff. The HEWITT Company did not involve the KFSH staff in the planning, design or implementation stages of the BSC. The HEWITT group also neglected to consider the impact of the culture of the KSA on the new strategic system.

Another factor was that most of the low-level employees and executives were afraid of the implementation of BSC. The high power distance does not help to overcome the fear of employees. It does not convince the staff to accept the change; consequently, many unanswered questions on the reality of BSC remained. HEWITT did not provide information regarding the purpose and uses of BSC. The shortage of information and mis-communication from HEWITT made employees feel as if their positions at risk.

A portion of the blame must also be attributed to 76% of the executives, who kept strategic information to themselves to demonstrate power to their peers. The power of information used by the senior executives further amplified the distant leadership. Some of the executives also believe that BSC is worthless and a waste of time. For instance, one of the main executive has the opinion that *“we should not give it that*

much attention; I believe it would be more productive if the same amount of attention were to be given to our patients instead”.

Employees may resist the introduction of BSC if they think it will add to their administrative work, or if they think it is unfair. BSC will be viewed as unfair if the measures are not clear, or if they are not applied uniformly. Employees will also resist implementation if they do not understand, or accept, the linkages between BSC and the strategic objectives. Grove et al. (2008) found that the implementation of BSC faces resistance from some top managers if they are not involved in it. In addition, Evans (2008) explained that when the upper-management level fails to support the lower management level, there can be internal resistance to strategic planning. To sum up, people at KFSH resisted strategic planning for several reasons, they did not realise the importance of BSC, managers did not designate enough time to it, and employees did not understand why they are doing it.

F-The linkage and the BSC generation

The results in Chapter 6 show that KFSH applies the first generation of BSC since the executives use BSC as a performance measurement tool and not as a strategic management system. In other words, BSC in KFSH only manages the five perspectives for performance objectives and does not link them with the strategy. The first generation of BSC in KFSH is not linked with the incentive system. Limiting BSC to the first generation may inhibit the link between the business operations and the business strategy. Most of the executives and their subordinates explain that BSC is not linked with the reward system. In addition, they explain that the departmental measures are not associated with the reward system. Respondents show that the measures of BSC are not helping them to identify the department or individual responsible for a particular

performance. Employees also think that the performance measures of BSC are misleading; that there are too many measures to control; and that the links between them are not clear.

According to Kaplan and Norton (2001a), incentive compensation is a powerful tool to gain employees' attention to a company's and/or business unit's objectives. The incentive system plays two important roles: it focuses employees' attention towards the measures that are most critical to the strategy, and it provides extrinsic motivation by rewarding employees when the organisation succeeds in reaching its targets. When all individuals understand how their pay is linked to achieving the strategic objectives, the strategy becomes everyone's daily responsibility. Our result is consistent with the findings of Pforsich (2005), Olve et al. (2004), and Dent (2005). They present some unsuccessful examples of the implementation of BSC and attribute the failure to the fact that the strategy and performance are not linked with the incentive system.

McCunn (1998) explains that nearly 70% of BSC implementation projects suffer from inadequate inclusion of employees in the BSC process. This problem is due to many factors including top-down control, insufficient understanding of BSC before its implementation, the lack of coordination, the lack of middle-management involvement, and the lack of effectively translated divisional and functional scorecards linked to incentive programmes. Furthermore, employees do not understand how their own objectives would contribute to the accomplishment of business unit and corporate objectives.

The analyses revealed that executives at the KFSH were not aware of the BSC generation being applied or of the difference between the generations. For instance, one of the key leaders of the BSC system said "*I do not know which generation that we*

apply". Another said "*I do not know what you are talking about*". Accordingly, this study concludes that staff members in KFSH have limited awareness of BSC, and this in itself limits BSC to the first generation. Accordingly, since the KFSH is applying the first generation of the BSC, they may face challenges in applying the business strategy. The third generation fills the gap between theoretical strategic plans and real business activities Kaplan and Norton (2001b). However, Kaplan and Norton (1996) suggest that when applying the third generation, companies should be careful to link the reward system to BSC. Speckbacher et al. (2003) found that companies implementing higher generations, such as the third, are less subject to strategic difficulties. The study also showed that the majority of companies associated with less developed BSC suffered from difficulties in implementing BSC. In addition, half of the companies failed to obtain cause-and-effect relationships as they had only recently started the implementation process.

7.3 The conceptual model and the research questions

The first proposition and hypotheses of H_1 , H_2 , H_3 , and H_4 examined the first part of the conceptual framework using triangulation analysis. As explained above, the quantitative analysis showed that employees at KFSH understood the five perspectives of BSC. This result means that the employees understand the goals and measures of each perspective. Thus, this indicates that the KFSH applies the first generation of the BSC. In addition, employees demonstrated their understanding of the strategic importance of each measure and how it should be applied. Similar findings were obtained from the qualitative analysis. However, the qualitative analysis revealed that executives had a higher understanding of the BSC perspectives than employees in the lower management levels. The triangulation analysis also documented that KFSH applies the first generation of BSC. Taking the two (QUAN/QUAL) analyses together,

the researcher answered the first research question: **"What is the level of employees' and managers' understanding of the BSC perspectives?"**.

Despite this baseline understanding, respondents from the lower-level did not have understanding to show the causal and effect relationship between the BSC perspectives and the company strategy. The survey analysis also confirmed that the linkage of the BSC perspectives with the business strategy is not understood. In addition, the thematic analysis uncovered that seniors too have a weak understanding of the cause and effect relationship. Against this background, the researcher moved to answer the second research question: **"What is the level of employees' and managers' understanding of the business strategy?"**.

The second proposition and hypothesis H_6 examined the relationship between BSC implementation and changes in performance measures, as in the conceptual framework. Analysis of the performance measures related to the BSC showed that measures experienced no significant change following the implementation of BSC. The thematic and historical observation analyses confirmed that the performance measures are not linked with the business strategy. The thematic analysis revealed that BSC at KFSH is applied as a measurement tool and not as a strategic tool. In addition, the revision of KFSH documents showed that the use of BSC as a strategic tool is not a priority at KFSH. However, they do consider BSC as a tool for controlling the performance of KFSH. The discussion around the third proposition showed that the performance measures are not revised based on the business strategy. In addition, the feedback system does not work properly. Furthermore, employees in the lower levels are not involved in the revision of BSC measures. KFSH fails to consider BSC as the responsibility of everyone.. Thus, these results enabled the researcher to answer the

third research question: **"To what extent has the implementation of BSC improved the business performance and strategy?"**.

Survey analysis showed that clinical and non-clinical staff members had similar understanding of the BSC perspectives, thus confirming hypothesis H_5 . Themic analyses suggested that clinical staff members had a better understanding of the medical care perspective, while non-clinical understood the financial perspective more. However, these differences were not reflected in the survey data. This may suggest that employees believe that there understanding is the same, until probed further. Employees at lower levels think that BSC is limited to the top management levels. They argue that executives fail to deploy BSC to the middle and lower management levels. Moreover, many of the interviewees from the lower levels show that they are not satisfied with the BSC implementation process. On the contrary, seniors explain that they are satisfied with the process of BSC. These results confirm that there is a major difference in the perception of BSC among the business levels. Thus, these results enabled the researcher to answer the fourth research question: **"Do clinical, non-clinical, top, middle, and lower management levels of the KFSH have different opinions of the BSC perspectives"**.

Analysis of proposition four using themes and observations finds that the leadership style and the culture of the KSA have major negative impact on driving the implementation of BSC. Specifically the culture of power distance and the Saudi leadership style plays a major role in communication, which tends to have a direct impact on the integration and success of BSC in the KFSH. The management information system is highly centralized, highly controlled, and bureaucratic. Thus, the flow of information from top-down is neither sufficient nor efficient. Furthermore, only traditional communication tools are applied, which reflects the nature of the KSA

culture. Internal and external communication tools are inadequately applied which results in the opposition to BSC.

Seniors argue that they focus on financial and non-financial perspectives; however, lower levels claim that the non-financial perspectives are dominant. This result may produce a gap between top management and lower management levels, which generates imbalanced view. The result also shows that the linkage of BSC perspectives is not clear. Thus, BSC may not adequately integrate with the business strategy. This discussion enables the researcher to answer the fifth research question: **"What is the perception of employees at KFSH regarding the success (or failure) factors of the BSC Perspectives"?**

7.4 Contributions

This thesis contributes to the literature by addressing several gaps. In the quantitative section, we use two different data collection methods to examine the understanding of the BSC perspectives. One method was a questionnaire based on the five-point Likert scale. This questionnaire was distributed to all departments at the KFSH. The researcher also used secondary data from the annual reports to examine the changes in the performance measures following the implementation of BSC. This approach is unique and so has not previously been applied to examine BSC or specifically, BSC in healthcare organisations.

The qualitative data were collected from two different sources. The first source was the semi-structured interviews, conducted with 36 participants, who were from different levels of the organisational hierarchy at the KFSH. The second source was through retrospective historical observation. From reviewing the literature on BSC, this is the first time that ethnographic analysis has been used in this field. The rationale behind the use of the researcher's own observation was to find out whether there is any

discrepancy between what people *say* and what the *real* situation at KFSH is or has been. By combining the qualitative and quantitative approaches, this thesis demonstrates that subjective and objective methods are effective for answering research questions involving complex phenomenon, such as the implementation of BSC which has not been applied in the previous studies.

This thesis also acquires information from all management levels whereas previous studies, such as the study of Chang et al (2008) on the implementation of BSC in healthcare organisations focussed on senior managers only.¹⁴ Furthermore, the study of Kaplan and Norton (2004b) selectively focussed on the senior management level. Thus, these studies are subject to biased results as they excluded the opinions of lower management levels from the analysis.

This research is also the first study of its kind that looks into BSC in a healthcare organisation in the KSA. In particular, this thesis investigates the determinants or success factors for understanding BSC in the KFSH. A small number of studies investigating the implementation of BSC in the KSA indirectly do exist. For example, the study of Alhamoudi (2010) is applied in the Institute of Public Administration in Saudi Arabia. The researcher investigates how KM strategies influence the development of an organisation's strategies. Alhamoudi claims that BSC could be used to develop strategic KM.

This thesis also differentiates between the understanding of financial and non-financial perspectives. Most other studies (Griffith, 1994; Baker and Pink, 1995;

¹⁴ The research team selected senior executives, who were qualified to answer the questions. The researchers then administered the survey and analyzed the responses. Next, the researchers designed another survey based on the responses to the first one, asking respondents to revise their original responses and answer other questions based on group feedback from the first survey. The researchers reiterated this process until the respondents reached a satisfactory degree of consensus.

Castaneda- Mendez et al., 1998; Weber, 1999; and Pieper, 2005; Jones and Filip, 2000; Aidemark and Funck, 2009) of healthcare organisations limit their analyses to the general understanding of the BSC perspectives. These studies therefore do not consider the main differences between the levels of understanding of the main perspectives of BSC.

Finally, the researcher designed a conceptual framework, combining the main elements required for BSC implementation. This framework summarises the determinants of BSC success. Based on the reviewed literature, the framework suggests that many factors contribute to the understanding and implementation of BSC. These factors include the level of communication; the generation of BSC; the weighting of perspectives; the management information system; the culture; and the linkage. This thesis contributes to the literature by summarising the relationship between these determinants and the performance measures.

7.5 Recommendations, gaps, and suggested further research

7.5.1 Recommendations

In the light of the discussion above we recommend that KFSH improve BSC in the following areas: the balance between perspectives; reducing the number of measures, effective training and communication; effective linkage through a management information system; and support for the culture of change.

KFSH applies 40 measures and the discussion shows that these measures are misleading. Ho and McKay (2002) recommend that for a successful implementation of BSC, the number and type of measures selected must be well-defined in advance. A controllable number of measures should also be applied to avoid the system becoming too time-consuming and, in turn, collapsing. Kaplan and Norton (1996) recommend

using from 21 to 28 measures, which is much fewer than the number currently utilised at the KFSH.

The results show that BSC is not communicated properly. It is recommended that extensive training courses be conducted to spread the awareness of BSC. Kaplan and Norton (2001a) and Hao et al. (2012) suggest using multiple communication tools to ensure that employees get the right message i.e. quarterly town meetings, brochures, monthly newsletters, education programs, and company intranet. It is recommended that all of these means of communication are used at KFSH. Further, Mooraj et al. (1999) suggest that organisations should apply a combination of top-down and bottom-up communication strategies to implement BSC and to ensure the involvement of the full organisation. It is also recommended that the importance of external stakeholders is considered by including them in the communication loop.

KFSH should include the following amendments to make BSC more successful: make the strategy explicit, choose the measures; define and refine; and deal with people. By making the strategy explicit, the top management level at KFSH should understand the strategic requirements for organisational success. Once the strategy is defined, communicated and understood, the relative measures can be chosen. Without a clear strategy in place, the organization would spend a lot of time discussing the right measures to implement.

The analysis in Chapter 6 shows that the management information system at KFSH does not support the BSC. Once measures are implemented, management information systems and procedures need to be set up to track and report the measures regularly. This typically involves developing information technology programming and involves understanding the source of the data. Data must be processed correctly to

produce a scorecard as close as possible to the one specified. If this is achieved, BSC can be an effective tool that leads to strategic alignment.

Olve et al. (2004) consider that a person's understanding and acceptance of the measures is crucial in implementing BSC. Implementing BSC is intended to change people's behaviour. This is the most important and challenging step in implementing BSC. Olve et al. (2004) identify four steps to overcome this challenge. One of these steps and of relevance is that managers should consider the needs of their employees, and in turn, BSC must be accepted. It is generally accepted that managers will not accept a change if they do not have a chance to influence it. Thus the input of everyone in the organization must be respected and the overall measurement needs must be balanced with the needs of a specific department.

For BSC to be accepted, the performance measures must not confuse people. Olve et al. (2004) show some evidence that when many BSC measures are in place, they may be confusing and contradictory. Too many measures will lead to inconsistency. Managers may not know the meaning of the measures or how to prioritise them. Inconsistent measures therefore produce unpredictable behaviour.

It also helps with acceptance if performance measures are linked with an incentive system. Appropriate behaviour must be rewarded accordingly and managers should be rewarded for what they have achieved. Four different tasks are required to change the performance measurement system. Each task requires the participation of a different interest group. Top management levels identify the strategy; the task team makes the measures robust; professionals play an essential role in implementing the measures; and the organisation as a whole is involved in obtaining the buy-in. The researcher recommends that KFSH should do substantial changes in culture within the organization. BSC requires understanding, commitment and support from all

management levels. As culture changes and develops to accept the new approach, and members of the organisation mature within the new culture, the organisation will find new things to measure. New goals will be set in different areas and this will help to make the BSC even more balanced and effective in supporting a living, growing, viable organisation. Different organisations have quite different needs, market areas, people, products and services, and will end up with significantly different BSC.

In the KFSH, BSC is managed by the quality department. Most staff members in the quality department are busy dealing with medical issues and do not have time to dedicate to BSC. Thus, it is recommended that skilled strategic managers are employed so that they can focus their attention on running, reviewing, and updating BSC, while medical staff can focus on medical duties.

7.5.2 Gaps and suggested further research

In this research, the Jeddah branch of the KFSH refused to be involved in completing the questionnaires. This gap may break the validity and reliability of our research. Thus, to overcome this problem the researcher expanded the sample size to cover employees at other branches and ensure their contribution in the research. The calculated response rate for the questionnaire is more than 30%, which is higher than some comparable studies.

The researcher faced challenges in comparing the results with other studies in the KSA, since very few studies have been conducted. To compensate, results were compared with other studies in the region, as well as with studies in the US and the UK.

The researcher also faced difficulties in collecting the data of performance measures to investigate the change in performance measures pre- and post-BSC implementation. The researcher overcame this problem by collecting data four years

before the implementation and four years after the implementation. Thus, the impact of missing data is reduced.

In light of these drawbacks, the researcher suggests that other hospitals in the KSA be studied in future research. This will allow greater comparability and identify whether the situation at the KFSH is an isolated case, or an exemplar of a wider problem. Future research should focus on cross-hospital analysis which ensures achieving better generalizability. The implementation of BSC should also be compared between profit and non-profit organisations in KSA.

The researcher believes that it is possible for future research to model the relationship between the BSC determinants and the business strategy. This area needs further analysis to determine why BSC was not linked to the business strategy in the KFSH.

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Appendix

Table A. 1 Summarises characteristics of the previous case (Gurd and Gao (2008)

Organization	Generation	No of perspectives	No Of indicators	Source
Mayo Clinic, USA	II	8	13	(Curtright and Stolp-Smith, 2000)
Cambridge Health Alliance, USA	I	4	44	Hermann et al. (2000)
St Mary's/Duluth Clinic Health System, USA	II	5	25	Balanced Scorecard Collaborative Inc. (2002)
Duke Children's Hospital, USA	II	4	22	VA web site (1900)
Falls Memorial Hospital, International Falls, USA	II	4	37	Mohan (2004)
Bridgeport Hospital, USA	II	5	18	(Gumbus and Lyons, 2002)
Royal Ottawa Hospital, Canada	II	5	32	Royal Ottawa Hospital (n.d.)
Community Memorial Hospital (CMH), USA	II		13	Stewart and Bestor (2000)
Royal Brisbane and Women's Hospital, AU	II	4	26	Royal Brisbane & Women's Hospital Service District (2005)
Silver Cross Hospital, USA	II	4	27	Pieper (2005)

Table A. 1 continued				
Organization	Generation	No of perspectives	No Of indicators	Source
A department of Swedish Hospital	II	4	21	Kollberg and Elg (2004)
St. Elsewhere's Hospital, USA	II	4	11	(Kershaw and Kershaw, 2001)
One clinic of Hogland Hospital, Sweden	II	4	16	(Aidemark, 2001)
Emergency department in a hospital, Taiwan	II	4	9	Huang et al. (2004)
Hospital Monitoring Directorate, NZ	I	4	16	Hospitals Monitoring
Mental Health Trusts and Providers of Mental Health Services, Healthcare Commission, UK	I	3	35	Directorate (2000) Healthcare Commission (2004)
Nursing of Queensland Health, AU	I	3	26	Queensland Health (2002)
Long-term planning at Jo'nko'ping County Council, Sweden	II	4	14	Aidemark (2001)
Bradford PCT, UK	II	4	30	Radnor and Lovell (2003a)
Bradford HIMP, UK	II	4	29	Radnor and Lovell (2003b)
South Canterbury District Health Board, NZ	I	4	16	South Canterbury District Health Board (2003)

Table A. 2 Questionnaire items

1. Employees understanding to the business strategy	
1	The KFSH-RC; has a clearly articulated statement of its strategic direction.
2	The KFSH-RC strategic directions are very well communicated throughout the organisation
3a	The hospital's strategic direction is understood across Executive Management
3b	The hospital's strategic direction is understood across Department Directors
3c	The hospital's strategic direction is understood across Employees
4a	Executive Management spend time on strengthening strategic decisions / redirecting the hospital strategic plan on regular basis
4b	Department Directors spend time on strengthening strategic decisions / redirecting the hospital strategic plan on regular basis
4c	Employees spend time on strengthening strategic decisions / redirecting the hospital strategic plan on regular basis
5	BSC is a tool for hospital to focus on strategies for long-term success
6	BSC provides a framework for strategy formation and implementation
7a	Making Strategy Everyone's Job it means: Leadership is responsible for translating strategy down through the organization?
7b	Making Strategy Everyone's Job it means; Everyone understands the cause-and-effect relationships between the objectives, goals and their (employer) role in making them happen?
7c	Making Strategy Everyone's Job it means; Leadership creates initiatives and determines how the successes of the initiatives are measured?
10	KFSHRC-R knows how much it loses financially from the annual target due to the dissatisfied customers / patients?
11	In your opinion after implementing the BSC at KFSH-RC cost of care is decreased?
12	In your opinion after implementing the BSC at KFSH-RC hospital has invested to improve the infrastructure and facilities?
36	Do you think customer satisfaction drives future financial performance?
37	Do you think internal processes drive future financial performance?
38	Do you think organization's ability to learn and improve drives future financial performance?
17	Do you agree: after implementing BSC at KFSH-RC it is noticed that quality of services has improved
19	Do you agree: after implementing BSC at KFSH-RC it is noticed that staff and departments have developed innovative strategies of hospital services
20	It is true, every process of KFSH-RC is tailored to the patient / customers' expectations?
21	Is it true, at KFSH-RC top management are satisfied with the available level of patient care technology in the hospital?
24	Is it true, after implementing the BSC at KFSH-RC new innovative process are developed
34	Do you agree, after implementation of BSC at KFSH-R the effective patient care technology utilisation has increased
35	Do you think, the cause-and-effect relationship between BSC measures are the most important characteristics in the BSC model?
23	Is it true, the effectiveness of hospital operations has improved after implementing the BSC at KFSH-RC
25	Do you agree, KFSH-RC employees are responsible for the resolution of the customers' problems?

Table A.2continued	
26	In your opinion, KFSH-RC have an integration program for the new employees which allow their customer centric training?
29	In your opinion, KFSH-RC provides opportunities for its employees to participate in training courses in order to learn new patient services strategies?
30	Do you agree, after implementation of BSC at KFSH-R the organisational climate has change to a very productive and healthy environment
31	Do you agree, after implementation of BSC at KFSH-R the professional learning and development activities or programs have increased?
32	Do you agree, after implementation of BSC at KFSH-R the concept of team work has improved to a greater extent?
33	Do you agree, leadership developmental activities and initiatives have increased after implementation of BSC at KFSH-R?
39	Do you believe, the annual goals of the hospital are linked to the strategic direction and annual budget?
40	Do you believe, staff assignments at hospital are linked to hospital strategic directions and budget?
41	Do you believe, the annual compensation is linked to hospital strategy and annual budget?
42	Do you believe the budget process is linked to strategy?
43	Do you believe, the priorities of hospital's strategy are reflected in the hospital annual budget?
8a	your BSC includes Vision statement
8b	your BSC includes Destination statement
8c	your BSC includes Strategic map
8d	your BSC includes Initiatives with full project plans
8e	your BSC includes Reporting tools (Excel type or other software)
9	BSC links short-term operational performance with long-term strategic objectives?
44a	Leadership Involvement is associated with a good Balance Scorecard
44b	Cause-and-effect Relationships is associated with a good Balance Scorecard
44c	Performance Drivers is associated with a good Balance Scorecard
44d	Linkages to Stakeholder Perspective is associated with a good Balance Scorecard
44e	Change Initiatives is associated with a good Balance Scorecard
45a	Is your BSC influenced by Business Action
45b	Is your BSC influenced by Behaviours
45c	Is your BSC influenced by Appraisals
45d	Is your BSC influenced by Rewards
45e	Is your BSC influenced by No influence
46	Are you aware how the Balance Scorecard was designed?
47	How frequent you updated your BSC (specify the time period)?
48	How knowledgeable are you about the BSC?
49	Will you please explain where BSC is used in your hospital
50	How do you evaluate the Balanced Scorecard implementation in the hospital?
13	In your opinion, Customers' satisfaction as a criterion used to evaluate the performances of individuals and departments?

Table A.2 continued	
14	Do you agree, KFSHRC-R rewards the employees who have an important contribution to the increase of customers' satisfaction?
15	Do you agree, Is the top management of our organization open to the customers' ideas and suggestions?
16	Is it true, After implementing BSC at KFSH-RC it is noticed that customer complaints are reduced to a greater extent
18	Do you agree, after implementing BSC at KFSH-RC it is noticed that hospital image has elevated
22	In your opinion, KFSH-RC use patient / customers' satisfaction indicator as the base for the improvement of the internal processes?
27	In your opinion, KFSH-RC implement rewards strategies for the employees offering services according to the customers' satisfaction level?
28	In your opinion, KFSH-RC encourages the employees to engender new ideas concerning the importance of the customers' satisfaction?

Figure A1 the questionnaire

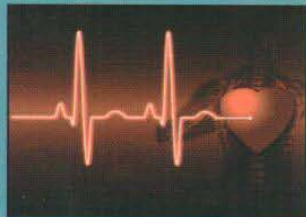
Serial No.:



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2011

Academic Research Questionnaire



REQUEST TO PARTICIPATE IN SURVEY

Bradford University, Bradford, BD9 4JL, UK

Dear Participant / Staff members,

I am, Saleh Al Thunaian, a doctoral student at Graduate School of Business Management, conducting research under the supervision and guidance of Prof. Nelarini Cornelius, Professor, Human Resource Management and Organisational studies and Associate Dean Research, in the school of Management, University of Bradford (UK).

I am conducting research study which is entitled "To evaluate the employees understanding about the concept and strategy of Balance Scorecard and its effective implementation with respect to (1) customer, (2) financial, (3) internal process and (4) learning and growth prospective and to review how effectively the above four perspectives of Balance Scorecard are linked with resources and budget at your hospital.

Your participation in the study is completely voluntary and the questionnaire will take approximately 20 minutes to complete in full length. Your answers will be treated as highly confidential, by any means identification of the respondent will never be shown to the employer. Your participation is very important to gain insight about what the work force believes and to help position future recommendations regarding the hospital's strategic plan implementation. Your name is not required on any documents.

In my knowledge there are no known risks associated with participating in this study, however it is anticipated that this study will help me to gain a better understanding of issues that are important to BSC in hospitals, which in future may lead to changes if required in hospital BSC that will benefit future organisational strategies.

Please, before you start answering the questions, complete the consent form and answer the questionnaire.

If you have any questions or comments about the study and you desire to talk to me in this regard, please feel free to contact me and I will be happy to provide you with any information I can. My phone number and email address are mentioned below.

Thanks for your assistance with the study.

Saleh Al Thunaian

Ph NO: 0505 612 789

E-mail : s.a.althunaian@bradford.ac.uk

Bradford University, Bradford, BD9 4JL, UK

Dear research scholar,

I am an employee of KFSH-RC. I am aware that Mr. Saleh Al Thunaian is conducting a research study from Bradford University, UK and he has selected the case study at KFSH-RC and I am invited to participate in his study as a employee of KFSH-RC, KSA.

PURPOSE: His topic of the study is entitled as: "To evaluate the employees understanding about the concept and strategy of Balance Scorecard and its effective implementation with respect to (1) customer, (2) financial, (3) internal process and (4) learning and growth prospective and to review how effectively the above four perspectives of Balance Scorecard are linked with resources and budget at KFSH-RC, KSA.

PROCEDURES: It is a part of the PhD curriculum and the results of this study will be meaningful and will also helpful to the organisation in border perspective to draft the future strategies.

TIME: I understand that it will take about 15 to 20 minutes from my schedule to fill out the survey.

CONFIDENTIALITY: I also appreciate that, responses to the questionnaire will be stored in a database, which will not be linked to any identifying information. Hence the responses will be completely anonymous and confidential. The information will be grouped with all other responses, Hence, no identification of individual responders will be possible. The data will be destroyed immediately after completion of the research study; I have trust on the research scholar that he will intimate the destruction of the records after its use. My name will not be place anywhere on the questionnaire.

RISKS: I have been assured that completion of this questionnaire carries no known or foreseeable risks. As the responses are not linked to my name or any other identity, no one will be able to identify my answers. My participation is completely voluntary. I also reserve the decision not to participate at any point of time during the completion of the questionnaire will not affect my current or future relations within the health system. Specifically, my employment will not be affected if I choose not to fill out this questionnaire.

ADDITIONAL INFORMATION: If I would like, may further information it will be provide to me by the research scholar, or If I have any questions about my rights as a participant I can contact the Office of Human Resource Department at KFSH-RC, KSA.

CONSENT: By having the above information and rights, I give my willful consent to participate in the study.

SIGNATURE OF THE PARTICIPANT

RESEARCH STUDY CONSENT LETTER AND PROTOCOL

INSTRUCTIONS:

1. Please use black pen to mark your answers
2. Mark the appropriate box provided in response column with (✓) whichever option you wish to respond.
3. After completion, please keep the booklet in the cover provided along with this booklet and seal it with prefix adhesive.
4. Handover the sealed cover to following adress.



MPC - 19

KINDLY PROVIDE YOUR DETAILS				DATE		
Department			Gender			
Job Role						
Nationality			Approx. Age			
Belong to Clinical vicinity			Belong to Non clinical vicinity			
Doctor	Nurse	Paramedical	Top management	Middle Management	Supportive	
Qualifications Mark applicable one		PhD	Master Degree	+First Degree	+ Diploma	+ Certificate
Duration of stay in the department / KFSH-RC		More than 15 years	Between 10 to 15 yrs	Between 7 to 10 yrs	Between 3 to 7 yrs	Less than 3 years

QUESTIONS BASED ON BSC		Strongly agree	Agree	Can't say	Disagree	Strongly disagree
		5	4	3	2	1
	The KFSH-RC; has a clearly articulated statement of its strategic direction.					
2	The KFSH-RC strategic directions are very well communicated throughout the organisation					
3	The hospital's strategic direction is understood well across the following employee groups					
	A	Executive Management				
	B	Department Directors				
	C	Employees				
4	The following staff spend time on strengthening strategic decisions / redirecting the hospital strategic plan on regular basis					
	A	Executive Management				
	B	Department Directors				
	C	Employees				
5	BSC is a tool for hospital to focus on strategies for long-term success					
6	BSC provides a framework for strategy formation and implementation					
7	Making Strategy Everyone's Job it means					
	A	Leadership is responsible for translating strategy down through the organization?				
	B	Everyone understands the cause-and-effect relationships between the objectives, goals and their (employer) role in making them happen?				
	C	Leadership creates initiatives and determines how the successes of the initiatives are measured?				
8	What component does your BSC includes (please tick all that apply)?					
	A	Vision statement				
	B	Destination statement				
	C	Strategic map				
	D	Initiatives with full project plans				
	F	Reporting tools (Excel type or other software)				

QUESTIONNAIRE

QUESTIONS BASED ON BSC		Strongly agree	Agree	Can't say	Disagree	Strongly disagree
		5	4	3	2	1
9	Does BSC links short-term operational performance with long-term strategic objectives?					
10	Do you agree, KFSH-RC knows how much it loses financially from the annual target due to the dissatisfied customers / patients?					
11	In your opinion after implementing the BSC at KFSH-RC cost of care is decreased?					
12	In your opinion after implementing the BSC at KFSH-RC has invested to improve the infrastructure and facilities?					
13	In your opinion, at KFSH-RC Customers' satisfaction as a criterion used to evaluate the performances of individuals and departments?					
14	Do you agree, KFSH-RC rewards the employees who play an important contribution to the increase of customers' satisfaction?					
15	Do you agree, is the top management of our organization open to the customers' ideas and suggestions?					
16	Is it true, after implementing BSC at KFSH-RC it is noticed that customer complaints are reduced to a greater extent					
17	Do you agree, after implementing BSC at KFSH-RC it is noticed that quality of services has improved					
18	Do you agree, after implementing BSC at KFSH-RC it is noticed that hospital image has elevated					
19	Do you agree, after implementing BSC at KFSH-RC it is noticed that staff and departments have developed innovative strategies of hospital services					
20	Is it true, every process of KFSH-RC is tailored to the patient / customers expectations?					
21	Is it true, at KFSH-RC top management are satisfied with the available level of patient care technology in the hospital?					

QUESTIONS BASED ON BSC		Strongly agree	Agree	Can't say	Disagree	Strongly disagree
		5	4	3	2	1
22	In your opinion KFSH-RC use patient / customers' satisfaction indicator as the base for the improvement of the internal processes?					
23	Is it true, the effectiveness of hospital operations has improved after implementing the BSC at KFSH-RC					
24	Is it true, after implementing the BSC at KFSH-RC new innovative process are developed					
25	Do you agree, at KFSH-RC employees are responsible for the resolution of the customers' problems?					
26	In your opinion, KFSH-RC have an integration program for the new employees which allow their customer centric training?					
27	In your opinion, KFSH-RC implement strategies to reward the employees offering services according to the customers' satisfaction level?					
28	In your opinion KFSH-RC encourage the employees to engender new ideas concerning the importance of the customers' satisfaction?					
29	In your opinion KFSH-RC provide opportunities for its employees to participate in training courses in order to learn new patient services strategies?					
30	Do you agree, after implementation of BSC at KFSH-RC the organisational climate has change to a very productive and healthy environment					
31	Do you agree, after implementation of BSC at KFSH-RC the professional learning and development activities or programs have increased?					
32	Do you agree, after implementation of BSC at KFSH-RC the concept of team work has improved to a greater extent?					
33	Do you agree, leadership developmental activities and initiatives have increased after implementation of BSC at KFSH-RC?					

QUESTIONS BASED ON BSC		Strongly agree	Agree	Can't say	Disagree	Strongly disagree
		5	4	3	2	1
34	Do you agree, after implementation of BSC at KFSH-RC the effective patient care technology utilisation has increased					
35	Do you think, the cause-and-effect relationship between BSC measures are the most important characteristics in the BSC model?					
36	Do you think, Customer satisfaction drives future financial performance?					
37	Do you think, internal process drive future financial performance?					
38	Do you think, organization's ability to learn and improve, will drives the future financial performance?					
39	Do you believe the annual goals of the hospital are linked to the strategic direction and annual budget?					
40	Do you believe staff assignments at hospital are linked to hospital strategic directions and budget?					
41	Do you believe the annual compensation is linked to hospital strategy and annual budget?					
42	Do you believe the budget process is linked to strategy?					
43	Do you believe the priorities of hospital's strategy are reflected in the hospital annual budget?					

		Strongly agree	Agree	Nor agree not disagree	Disagree	Strongly disagree
44	In your opinion among the following which are the parameters associated with a good Balance Score-card?					
	A	Leadership Involvement				
	B	Cause-and-effect Relationships				
	C	Performance Drivers				
	D	Linkages to Stakeholder Perspective				
	E	Change Initiatives				
45	Can you mention among the listed items your BSC is influenced by					
	A	Business Action				
	B	Behaviours				
	C	Appraisals				
	D	Rewards				
	E	No influence?				
46	Are you aware how the Balance Scorecard is designed at your hospital?		Designed by a expert team in your hospital			
			Designed by consultants			
			Designed by Board / Management members			
			Designed by our departmental staff team			
			I do not know where it is designed			

QUESTIONNAIRE

47	How frequent you update your BSC in the hospital?		Strongly agree	Agree	Nor agree not disagree	Disagree	Strongly disagree
		Once in a year					
		Twice in a year					
		After every four months					
		Every month					
	I do not have information						
48	How knowledgeable are you about the Balanced Scorecard?		Extremely good	Good	Slightly	Minimal	No knowl- edge at all
49	Will you please explain where BSC is used in your hospital?	At Board level					
		At KFSH-RC level					
		At departmental level					
		At functional level					
		At Executive / Senior Management level					
50	How do you evaluate the BSC implementation in the hospital?		Extremely well implemented	Implemented good	Can't say how it is implementing	It adds very less value	It has nothing to do in the hospital

Thanks for your kind co-operation

A Brief Summary of research project

Aim of the study:

The aim of the study is to "To evaluate the employees understanding about the concept and strategy of Balance Scorecard their commitment towards effective implementation with respect to (1) customer, (2) financial, (3) internal process and (4) learning and growth prospective at KFSH-RC, KSA, and to review how effectively the above four perspectives of Balance are link with resources and budget".

Research objectives:

- 1.To evaluate the employees understanding about the concept and strategy of Balance Scorecard at KFSH-RC, KSA.
- 2.To assess the commitment towards effective implementation with respect to (1) customer, (2) financial, (3) internal process and (4) learning and growth prospective at KFSH-RC, KSA.
- 3.To study how effectively the four perspectives of Balance (1) customer, (2) financial, (3) internal process and (4) learning and growth prospective are link with resources and budget.

Statement of the Problem:

Currently there is no specific knowledge about:

- (1) The staff understanding of Balance Scorecard as organizational strategy of KFSH-RC, KSA
- (2) The level of staff commitment towards effective implementation of Balance Scorecard strategy linked with (a) customer prospective, (b) financial prospective, (c) internal process prospective, and (d) learning and growth prospective, at KFSH-RC and
- (3) How best the four perspectives of Balance Scorecard (a) customer prospective, (b) financial prospective, (c) internal process prospective, and (d) learning and growth prospective, are perfectly linked with resources and budget" at KFSH-RC, KSA.

Without the above insight and knowledge about these areas of interest, the KFSH-RC may be hampered in its efforts to successfully implement the Balanced Scorecard. This study will provide additional information about the efforts of hospital's implementation of the Balance Scorecard management system.

Research Question:

This present research will help to understand the major research question that;

- (1) Does employees have good understanding about the concept and strategy of Balance Scorecard and its implementation at King Faisal Speciality Hospital further are they are committed towards effective implementation with respect to (a) customer, (b) financial, (c) internal process and (d) learning and growth prospective and whether these above four perspectives of Balance Scorecard are perfectly linked with resources and budget at KFSH-RC, KSA.

Research Hypothesis:

According to the null hypothesis; (1) employees does not understand the concept and strategy of Balance Scorecard and its implementation at KFSH-RC (2) they have no commitment towards effective implementation with respect to (a) customer, (b) financial, (c) internal process and (d) learning and growth prospective and (3) the above four perspectives of Balance Scorecard are not at all linked with resources and budget" at KFSH-RC, KSA.

According to the null hypothesis, (1) employees have good understanding about the concept and strategy of Balance Scorecard and its implementation at KFSH-RC further (2) they are committed towards effective implementation with respect to (a) customer, (b) financial, (c) internal process and (d) learning and growth prospective and (3) the above four perspectives of Balance Scorecard are perfectly linked with resources and budget" at KFSH-RC, KSA.

Importance of the Study:

This research is considered to be an important document to the organizational leaders of the hospital because it will develop a baseline for understanding the workforce's knowledge about strategy and its implications for the organization, further it is also important because it provides an opportunity to measure the influence of time and training on the workforces' change in performance and behaviours from pre to post Balance Scorecard implementation. The outcomes from this current research will also be important to help formulate future research projects with better-defined measures and designs that are more sophisticated.

Scope and Period of research study:

The scope of the study covers evaluation of change in organisational performance and employees commitment after implementation of Balance Scorecard for which survey will be conducted among clinical and non clinical staff (Medical and administrative departments including senior staff who are involved in decision making) of KFSH-RC, Riyadh.

The research study will be conducted for three years (2007 -11) and the retrospective data will be collected from the year 2010.

Table A. 3 Interview Questions

<u>BALANCE SCORECARD (BSC)</u>	
Interviewer report	
Interviewer Name: Mr. Saleh Althunaian	Place : KFSHRC-R
Interviewee Name:	Interviewee Department:
Interview Date :	Interview Duration :
<u>QUALITATIVE INTERVIEW QUESTIONS</u>	
I	General about BSC
Q1	How much time does your department director and staffs spend to discuss the strategic direction per month?
A1	
Q2	Does BSC plan available in written form which includes departmental strategy design map
A2	
Q3	How frequently the review of Balanced Scorecard plan happens and do you participate in review meetings?
A3	
Q4	How many top and middle level employees are involved in the implementation?

A4	
Q5	In which areas of the hospital operations after the implementation of BSC shown the effectiveness and noticeable improvement at KFSHRC-R
A5	
Q6	After implementation of BSC which method of professional learning or development is helpful to achieve organizational growth and development?
A6	
Q7	After implementation of BSC at KFSHRC-R what are those customer complaints which are decreased and as a result the number of patients are increased at KFSHRC-R . Give example.
A7	
Q8	After implementing the BSC at KFSHRC-R hospital how you can justify that safety and environment conscious is improved in the hospital
A8	
Q9	After implementing the BSC to what extent it is helpful in improving the internal business processes and communication in the organization?
A9	
Q10	What is the ultimate goal of implementing the BSC at KFSHRC-R?
A10	

II.	BSC Initiatives
Q1	After analysing the developments after BSC, what are the core and innovative processes we identified which may lead to excel to attain growth at KFSHRC-R?
A1	
Q2	After implementation of BSC at KFSHRC-R which value added customer and patient process are introduced
A2	
Q3	After implementing BSC at KFSHRC-R what are those innovative strategies related with hospital services which increases the number of patients
A3	
Q4	Which additional services or products are introduced at KFSHRC-R after BSC which are demanded by the patients and are equally important for the growth of the hospital?
A4	
Q5	Which are the targeted as where, in terms of growth and increase number of patients KFSHRC-R have taken initiatives to develop? Give example ?
A5	

Q6	Which organizational infrastructure elements are necessary if we have to perform effectively hospital process and achieve customer objectives?
A6	
Q7	To decrease the financial loose as a result of a dissatisfied customers / patient which process to be strengthen more?
A7	
Q8	To increase the efficiency of services in terms of financial growth what initiatives your department / hospital has initiated
A8	
Q9	Do the staffs have access to the information they need to achieve the customer outcomes?
A9	
Q10	What are the initiatives that are taken at KFSHRC-R to add value for our customers? Give example ?
A10	
III.	BSC Relationship
Q1	In your opinion are there any tasks that are not linked to indicators and strategic goals?
A1	
Q2	Among the services of KFSHRC-R what are the services which are added to give more value in terms of financial gain? Give example ?

A2	
Q3	For every BSC indicator one designated employee is associated who is responsible for the value of the indicator? Is it true at KFSHRC-C
A3	
Q4	To increase the efficiency of KFSHRC-R what kind of opportunities at department level do you think which can enhance the revenue KFSHRC-R?
A4	
Q5	To what extent are the priorities of the KFSHRC-R strategy reflected in annual budget?
A5	
Q6	To what extent do you believe the annual goals of the KFSHRC-J are linked to the annual budget?
A6	
Q7	To what extent do you believe the annual goals of the KFSHRC-R are linked to the strategic direction? Can you tell me please ?
A7	
Q8	To what extent do you believe your job is linked to the KFSHRC-R strategic direction and budget?
A8	
Q9	To what extent is annual compensation linked to KFSHRC-J annual budget?
A9	

Q10	To what extent is annual compensation linked to KFSHRC-R strategic direction?
A10	
Q11	Which are the key successful elements of organizational climate culture which we can consider as ideally aligned with goals and throughout the KFSHRC-R?
A11	
Q12	Which skills and competencies do our staffs need to acquire for growth and competence?
A12	
END OF THE INTERVIEW QUESTIONS	

A. 4 The descriptions of interview and the coding system.

Participant	Name	Descriptions
1	A	The participant is in his early forties and graduated from Canada as a consultant. He covers the clinics as well as working as a director for one of the departments. He is originally from Saudi Arabia, and Islam is his religion. His total experience in the hospital is about 10 years.
2	B	He is in his early fifties—a Saudi participant. He is one of the famous consultants, and he runs operations all over the kingdom. He graduated from Canada and follows Islam. He has an extremely busy schedule, and is difficult to find. His total experience in the hospital is about 18 years.
3	C	This participant is a highly educated and is in his early fifties. He is a Saudi national. Graduated from Canada as a consultant and is runs his clinic as well as the Department. He is very skilled and a renowned practitioner in his field. The patients have to wait for six months sometimes to see him. His total experience in the hospital is about 16 years.
4	D	The participant is 45 years old. He graduated from USA with an MBA. He is a director of one of the departments. He is extremely professional and organized. He is especially famous amongst the staff for his quality of kindness. He is a Saudi and follows Islam. His total experience in the hospital is about 19 years.
5	E	She is one of the directors and graduated from USA with an MBA. She is a Muslim and a Saudi national. She is leading her department professionally. Her total experience in the hospital is about 16 years.
6	F	This participant is a Saudi and in his early forties and highly qualified consultant, who graduated from Canada, and currently works as a director of one of the departments. He also runs his own clinic. His total experience in the hospital is about 14 years.
7	G	This participant is a consultant in his department. She is also the liaison officer between his department and the quality management for the implementation of the balanced scorecard. He is a Saudi and in his early forties. He graduated from Canada as a consultant. His religion is Islam. His total experience in the hospital is about 10 years.
8	H	This participant is in his early thirties and is a specialist in his department. He graduated from Canada. He is a Saudi Muslim. His total experience in the hospital is about 5 years.
9	I	She is one of the consultants in her department. She is in her mid-thirties a Saudi and a Muslim. She is the liaison officer between her department and the quality management in addition to her clinic cover. Her total experience in the hospital is about 8 years.
10	J	He is a Saudi national, who graduated from Canada as a consultant. He is in his mid-thirties and a Muslim. His total experience in the hospital is about 7 years.

Participant	Name	Descriptions (continued)
11	K	She is the liaison officer between her department and the quality management in addition to her clinic coverage. She is a Saudi national, in her mid-thirties and a Muslim. She is one of the consultants in her department. Her total experience in the hospital is about 10 years
12	L	She is one of the Saudi consultants in her department, follows Islam, and is in her early-thirties. Her total experience in the hospital is about 6 years.
13	M	This participant is a Jordanian, follows Islam and is in his early-thirties. He graduated from the university specializing in nursing care. He works as a staff nurse and his experience in the hospital is 10 years.
14	N	She is a British national working at the hospital as a staff nurse. She graduated from the UK with a college degree. She is about 38 years old. Her religion is Christianity. Her total experience with the hospital is more than 6 years.
15	O	Mary is a staff nurse. She is from the Philippines and graduated from the Philippines with a university degree. She is a Christian and has 8 years of experience in the hospital. She is in her early forties.
16	P	Lana is from UK, in her mid-forties, and a Christian. She graduated from the UK as a staff nurse and also works at the hospital as one. She is very skilled in her field. She has been working with the hospital for more than 8 years.
17	Q	She is from the Philippines, is in her early forties and follows Christianity. She is a university graduate and works as a staff nurse with total experience of 9 years.
18	R	She is from Saudi Arabia, in her early thirties, and follows Islam. She graduated from the university as an advanced specialised nurse. Her total experience with the hospital is about 6 years.
19	S	She is from the Philippines, in her mid-forties, and a Christian. She graduated from the Philippines with a diploma as a staff nurse. She has been working with the hospital for more than 6 years.
20	T	She is from Saudi Arabia, in her early thirties, and follows Islam. She graduated from a nursing school with a diploma in nursing-care. She has been working as a staff nurse at the hospital for about 4 years.

Participant	Name	Descriptions (continued)
21	U	She is from the Phillipines in her early thirties and her religion is Christianity. She is a college graduate, working as a staff nurse with 3 years of total experience.
22	V	This participant is a Lebanese with Islam as her religion. She is in here early thirties, and graduated from a college in the specialty of nursing care. She works as a staff nurse with about 4 years of total experience in the hospital.
23	W	She is a staff nurse with a college degree from the Philippines. She is a Christian and has 5 years as total experience. She has Filipino nationality. She is 35 years old.
24	X	This participant, a Saudi with Islam as her religion in early thirties, graduated from the nursing school with a diploma in the specialty of nursing care. She works as a staff nurse with total experience in the hospital of about 5 years.
25	Y	This participant, in his early thirties, is a supervisor in his department who graduated from the Diploma College in Saudi Arabia, and he is a Saudi with Islam as his religion. His total experience in the hospital is about 9 years.
26	Z	The participant, 45, is a high school graduate from USA; he is an appointment officer for one of the departments. He is a Saudi, with Islam as his religion. His total experience in the hospital is about 19 years.
27	AB	This participant is approximately 45 years old. He is the Appointment Officer in his department; he graduated from high school, and he's a Saudi with Islam as his religion. His total experience in the hospital is about 20 years.
28	AC	This participant, in her early thirties, is Saudi with Islam as her religion. She graduated from a university as a business administrator. Her total experience in the hospital is about 6 years.
29	AD	She's a Saudi national working as a staff project specialist and graduated from UK with college degree. She is about 30 years old. Her religion is Islam. Her total experience with the hospital is more than 6 years.
30	AE	This participant is a Lebanese with Islam as her religion and is in her early thirties. She graduated from a university with an MBA specialising in quality. Her position is a supervisor in the department with total experience in the hospital of about 7 years.

Participant	Name	Descriptions (continued)
31	AF	This participant is a highly educated and in his early fifties; he is a Saudi national who graduated from USA with an MBA. He is very skilled in administrative work. His total experience in the hospital is about 25 years.
32	AG	The participant, 45, got his MBA from USA; he is a director for one of the departments and a consultant at the chief executive office. He is a Saudi, with Islam as his religion. His total experience in the hospital is about 20 years.
33	AH	He is one of the consultant advisers; he is a Saudi graduated from Canada as a medical consultant. His total experience in the hospital is about 22 years.
34	AI	This participant, 55, is highly educated. He is a Saudi who graduated from Canada. As one of the medical consultants, he runs his clinic as well as some of the hospital administrative work. His total experience in the hospital is about 24 years.
35	AJ	This Saudi participant, 48, is a highly qualified consultant who graduated from Canada. He covers his clinic as well as a CEO supporting team. His total experience in the hospital is about 20 years.
36	AK	This participant is a consultant physician with a high management position in the hospital. He is a Saudi in his early sixties and graduated from Canada as a consultant. His religion is Islam. His total experience in the hospital is about 26 years.