

Improving Quality Management in Community Colleges in Kingdom of Saudi Arabia

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Abstract

Organizations around the world are seeking to maximize their success and sustainability to survive in today's rapidly changing world – by improving the quality of their products and services, responding to clients' needs, and maximizing customer satisfaction. Quality, in turn, needs to be well managed to guarantee good services or products.

This research enhances the understanding of Quality Management in the context of Higher Education (HEI) generally, and Community Colleges (CCs) specifically. It studies the service quality situation and the application of Quality Assurance Standards (QAS) in ten CCs in the Kingdom of Saudi Arabia (KSA). It demonstrates the correlation between QAS and service quality, and the influence that QAS have on service quality.

In terms of management, this research presents an overview of the Saudi National Commission for Academic Accreditation and Assessment's (NCAAA's) application of QAS in CCs, and in relation to SERVQUAL. It specifies the Students', Faculty and Top managers' perceptions of service quality and clarifies the application of QAS in CCs in KSA. It identifies the service quality gaps in a sample of CCs, specifies the most influential QAS on service quality in KSA, and provides policy recommendations for stakeholders in CCs and Higher Education (HE) in KSA.

In terms of methodological contribution, this research determines how to measure the application of quality management and service quality status in the HEI context. It examines the application of SERVQUAL in the HE context and suggests the modifications needed. Then it examines the application of mixed methods, to get the best of the qualitative and quantitative methods and avoid the shortages of each. Unusually, SERVQUAL was applied on three categories of this research: Students, Faculty and Top Managers, since they represent the main categories of

internal stakeholders in HEI. Students are customers, and Faculty and Top Managers are the service providers: Faculty delivers the service and Top Managers lead the whole process and represent the decision makers.

In terms of theoretical contributions, this research investigates the literature on service quality, SERVQUAL, Quality Management, Resource Based View (RBV), CCs internationally, and CCs and HE in KSA. It uses RBV theory to differentiate between the performances of CCs, which can be applied to HEI generally. It then suggests an approach, in the light of RBV theory, to understand the reasons for low performance of CCs; how to analyze the situation and determine the reasons for low performing CCs and solutions which can be applied to all other HEI.

It clarifies the picture of HEI generally, and CCs specifically, in KSA from the perspective of quality management and service quality application.

It provides clearly evidenced policy recommendations derived from empirical data, and recommendations for stakeholders and researchers on what needs to be done, according to the findings.

This research is very useful for those who are interested in QM, HE, CCs, and service quality in relation to assurance standards, mixed methods and SERVQUAL adapted to higher education.

Through the literature investigated, data gathered, methodology followed, the results and findings reached, and the link is established between the implementation of quality standards and perceived outcomes, this research makes a significant and useful contribution to knowledge. It provides valuable research for institutions in KSA and similar contexts: Arabic Gulf Countries, Arab States or other countries in the world.

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List of Abbreviations:

CCs:	Community Colleges
COE:	The American-based Council on Occupational Education international body.
Faculty:	The teaching staff of a CC.
FM:	Faculty Member
HE:	Higher Education
HEI/HEI:	Higher Education Institutions
KSA:	Kingdom of Saudi Arabia
NCAAA:	National Commission for Academic Accreditation and Assessment
PR:	Policy Recommendations
QAS:	Quality Assurance Standards
QM:	Quality Management
RBV:	Resource Based View
SERVQUAL:	The service quality tool for measuring customer perception of service
TM:	Top Managers
TQM:	Total Quality Management

Chapter 1: Introduction:

1.1 Overview

Many organizations across the world are seeking to maximize their success and sustainability in today's rapidly changing world. Leading organizations worldwide, in all sectors, focus on making the best possible use of available resources to increase income, through increasing the number of their clients and expanding their markets (Modi & Mishra, 2011). This has encouraged organizations and companies to focus on improving the quality of their products and services, responding to their clients' needs, and maximizing customer satisfaction (Juran, 1998; Hoyle, 2001). "sustainability is developing along a similar trajectory to quality management, which became a megatrend in the 1980s and 1990s and remains so today" (Wiengarten & Pagell, 2012, p.407).

Competition has increasingly meant that quality is the means to competitive advantage (Fukui *et al.*, 2003; Gronroos, 2007), and has motivated organizations to concentrate more and more on quality and its management (Hoyle, 2001). Managing quality "helps in identifying and developing organisational capabilities for serving unique competitive positions" (Malik *et al.*, 2012, p.641).

Furthermore, rapid improvements in business markets have forced many organizations to focus their business scope on clients' needs in order to survive in today's highly competitive markets (Parasuraman *et al.*, 1988; Juran, 1998).

However, customer focus is not enough; organizations that cannot provide products and services efficiently and cheaply will not survive (Woolf, 1965). An organization survives and succeeds through the adoption of effective management systems which can measure and control current organizational performance, plan for its future and

improve the quality of its diverse products and services (Parasuraman *et al.*, 1988).

The development of international standards for quality management systems (QMS) such as ISO 9001, was another incentive for quality management (QM) to become a significant element in competition for business. Certification to ISO 9001 or other industry QM standards makes a difference in attracting customers and gaining their confidence in the products or services provided (Hoyle, 2001). This has motivated organizations to focus on effective QM in order to achieve the best possible quality, to attract more customers and improve profits and sustainability (Juran, 1998; Hoyle, 2001; Jashim Uddin, 2008). QM based on the ISO 9001 QMS aims to reach quality standards for policy and operations; measure performance; ensure that standards are met through the use of effective procedures and systems, and provide continuous improvement.

Recent years have also witnessed the emergence of other frameworks for managing quality such as Total Quality Management (TQM), Six Sigma, the Capability Maturity Model Integration (CMMI), Deming Prize, Business Excellence Model, EFQM Excellence Model, RBV and the Malcolm Baldrige National Quality Award (MBNQA). Significant among these approaches is TQM, which was once called the most often used term in the US (Juran, 1998). TQM remains an important QM approach worldwide, and will be discussed in this research.

QM ideas and approaches can be applied to both manufactured products and to services. This thesis will focus mainly on service provision and service quality concepts, although because many QM ideas originated in manufacturing, reference will also be made to this area. Customer expectations are generally believed to be more important in service provision. Generally speaking, "the concept of quality refers to the matching between what customers expect and what they experience" (Ali & Zairi, 2005, P. 8). In order to be of acceptable service quality, the

service provided should meet or exceed the customers' expectations. Accordingly, identifying customer expectations and measuring the service quality provided by an organization will be important aspects of this research.

The above ideas about quality, customers satisfaction, sustainability, competition and survival, which will be clarified in detail in the literature review, can be depicted in the following figure (1) prepared by the researcher:



Figure 1: QM and organization survival

This research will examine QM in a particular context: the Community Colleges (CCs), which are part of the Higher Education (HE) sector, in the Kingdom of Saudi Arabia (KSA). Quality within HE settings has a distinctive aspect to service quality, having many of the same considerations as other services, but additionally, the issues of student assessment, grading and ranking. Education is not a 'pure' service



because of this assessment aspect. There is some useful literature in the HE quality area and in the education field generally, but significant research gaps still exist. On a practical level, CCs in KSA are important institutions, in a country with an increasing young population who need good quality education. CCs are in a state of change and expansion, but there are few guidelines to establish the best methods to control and enhance the quality of the education they provide. Therefore, as detailed below, it is the aim of this research to address QM in the CCs of KSA, within the broader research context of general QM theory, service quality and education/HE quality.

This research is focusing mainly on service quality, quality assurance, and quality management concepts in Higher Education generally, in Higher Education in KSA specifically and in Community Colleges (CCs) in KSA more specifically. It has investigated the literature in Quality Management in Education and the pressures facing Higher Education Institutions towards quality. This research has clarified who is the customer in HE. It has then clarified the many approaches for measuring and developing quality generally and for measuring and developing the quality of HEI specifically. It has given more synthesis on RBV theory that focuses on the variation of performances between organizations in the same industry, service quality and SERVQUAL as an approach for measuring service quality in organizations.

This research has also depicted the development of CCs internationally by representing the CCs scene in USA as it is the originator of this kind of HE and as it has the largest number of CCs in the world (1200 CCs). It has then clarified the HE and CCs scenes in KSA concentrating on the quality management aspects and focusing on Quality Assurance Standards (QAS) for HEI in KSA that have been newly launched and started to be applied by all Saudi HEI. These QAS and their application will be clarified in detail in the Literature Review chapter and the Results chapter.

This research has –via the data it gathered- presented a clear picture about HEI generally and CCs specifically in KSA from the aspect of quality management and service quality application, an over view of the NCAAA and its QAS in relation to its application in CCs on the one hand and in relation to SERVQUAL on the other hand and specified the Students, Faculty and Top Managers perceptions of service quality in CCs in KSA.

This research also determined how to measure quality management application and service quality status in HEI context, determined the quality gaps on service quality in CCs in KSA, examined the application of SERVQUAL in the HE context and suggested the modification needed and specified the most influencing standards of QAS on service quality in KSA.

It has also examined the application of mixed methods in order to get the best of the qualitative and quantitative methods and avoid the shortages of both and finally provided an evidenced study for other similar institutions in KSA or in other countries having similar context either in Arab Gulf Countries, Arab States or other countries.

1.2 Thesis structure

This thesis structure is divided into eight parts which are:

1. The introduction that includes an overview of the thesis field, the structure of thesis, The research gap and aims, the research questions and finally the proposed contribution.
2. The literature that includes: the meaning of quality, quality management, quality management in education generally and HE specifically, quality perspectives for HE, TQM and Service Quality.
3. Community Colleges context and higher Education scene in KSA, which include: CCs in USA and their features, Higher Education and Community Colleges Scenes in KSA and finally, the NCAAA and its QAS.



4. Chapter 4 is about the research methodology chosen for this research, which contained: Quantitative research, Qualitative research, using mix methods, credibility and validity and avoiding bias, the research population and sample, implementing the pilot study and finally applying the research instruments and collecting data.
5. Chapter 5 is about the results obtained by the research instruments. It has contained the results of the following: the five dimensional analysis for the three categories Students, Faculty and Top Managers and a comparison between the sample CCs in their status of service quality and QAS application. It has then shown the gaps of service quality CCs in KSA are suffering from, analysis and interpretation of the quantitative and qualitative data, the status of application of QAS in CCs in KSA and finally the correlation of QAS and service quality.
6. Chapter 6 (Discussion and Recommendations), which included: a review of the effectiveness of the research methodology chosen, a discussion the research findings and their interpretation an identification of the quality gaps of CCs in KSA and how should they be dealt with, policy recommendations for stakeholders and researchers and presented the research limitations and areas for future research.
7. Chapter 7 finally concluded with the research conclusion, limitations and future research.
8. Then the References chapter that contains a list of all the references used in this research and Appendices as the final structure, which contains samples of the research instruments and some detailed tables and graphs.

1.3 Research Gap and Research Aims

As detailed later in the literature review chapter, previous literature has partly discussed the QM needs of HEI in specific, although

for other types of organizations QM has been more thoroughly investigated. The literature has also discussed the multiple challenges facing the measurement of service quality in general, and of service quality in educational institutions in particular. Several authors have identified the poor quality performance of CCs in the USA, where there are around 1200 CCs, in terms of their teaching/learning processes and the relative level of their graduates. Moreover, a study of the available literature has revealed a lack of QM experience and QM international requirements to assist KSA CCs specifically and KSA HEI generally. Therefore, this research aims to achieve the following:

- 1- Investigate relevant research and requirements for a successful application of international QM in HEI generally and in CCs specifically.
- 2- Identify current QM in CCs in KSA through empirical measurement of service quality.
- 3- Analyse and compare the situation in KSA of CCs, to the Quality Assurance Standards (QAS) of the Saudi National Commission for Academic Accreditation & Assessment (NCAAA), both nationally and internationally.
- 4- Understand the relationship between the achievement of QAS and the perception of service quality.
- 5- Suggest policy recommendations, adapted to the Saudi context, to apply and enhance QM and service quality in CCs in the KSA.

1.4 Research Questions

A. What are the requirements recommended by the existing literature for:

- 1) measuring service quality**
- 2) enhancing QM and service quality**

in the HEI and CC sectors? How can they be applied and what are their limitations?

This research question will identify the recommendations by academic experts and reveal the literature gaps in QM for HEI and CCs. Specifically, what are the theoretical contexts, lessons learned and best practice evident in successful applications of QM in HEI and specifically CCs, in both national and international arenas?

To answer the first question and its two sub-questions the secondary research has taken place. It has discussed relevant literature, determined theoretical contexts and literature gaps in measuring and enhancing QM and service quality for HEI and CCs in chapter (2).

B. What are the most appropriate policy recommendations for enhancing service quality through effective QM in CCs within the KSA according to the QAS of the Saudi NCAAA?

- 1) What is the current situation of QM and service quality in CCs within the KSA?**
- 2) What are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?**

This question and its two sub-questions were answered by the primary research that was conducted by applying three questionnaires to the main three categories in CCs, Students, Faculty and Top Managers, to measure their perception of service quality by using one of the best instruments for measuring service quality i.e. SERVQUAL. An additional 30 questions were directed to Faculty to measure the application of QAS in CCs. Interviews with Top Managers and some Faculty were also conducted to measure the QAS application in CCs from another angle. Quantitative and qualitative analyses have taken place also. The findings and the policy recommendations built upon them were presented also. This can be seen in detail in all the chapters of this thesis or in summary in the Discussion and Conclusion chapter.



1.5 Chapter (1) Summary

This chapter has presented an introduction clarifying the importance of quality and quality management for organization's competition, survival and sustainability. It has given an overview of this thesis, its structure, its research gap, its research aims and its research questions. A detailed overview will be presented in the next chapter the literature review. It will investigate the meaning of quality, quality management in general, quality management in education and pressures facing education on quality. It will then discuss the context of quality management in higher education and review the many tools for quality management and measurement with more detail for TQM, RBV and Service Quality and its tool SERVQUAL.



Chapter 2: Literature Review:

2.1 The Meaning of Quality

Although the notion of quality and its importance in business is long-established, at the end of the 20th century, it became a high priority for leading companies (Juran, 1995), since quality and prices are the only intersection linking both production companies and service providers with customers (Fukui *et al.*, 2003). This focus on quality increased during the 20th century when Walter Shewart, the "Godfather of statistical quality control" (ASQ, 2010, website), developed the Control Chart to deal with the various problems affecting products, in order to maximize their best possible quality levels. Later on, the influence of Shewart's quality ideas inspired W. Edwards Deming to formulate his own theories which eventually developed into the ideas of Total Quality Management (TQM). Research has demonstrated that quality has a strategic benefit in "contributing to market share and return on investment", in addition to "lowering manufacturing costs and improving productivity" (Parasuraman *et al.*, 1985, p. 41).

Parasuraman *et al.*, (1985) defined the meaning of quality by saying that "according to the prevailing Japanese philosophy, quality is "zero defects, doing it right the first time" (Parasuraman *et al.*, 1985, p.41). They also defined quality as "conformance to requirements" which means according to Garvin (1984) the extent to which the design and characteristics of a product meet the required standards. For Feigenbaum (1991), quality is determined by the customer. It is based upon "customer actual experience with the product or service measured against his or her requirements, stated or unstated, conscious or merely sensed, technically operational or entirely subjective and always representing a moving target in a competitive market" (Feigenbaum, 1991, p.7). The customer is the target of the service, and the one who determines the quality of the products or services. Quality of product or



service is the only relationship that links the customer to an organization (Feigenbaum, 1991).

Juran (1998, p2.2) provided a definition of quality as "freedom from deficiencies". In other words, making no errors, having no clients' claim dissatisfaction, and affording less costs. In essence, this means achieving better product quality that satisfies customers, as well as better process quality, reducing costs; thus contributing to shareholders' satisfaction (Juran, 1998; Dean & Bowen, 1994). In a similar vein, Chaudron (2008) defines quality as keeping to produce what customers need and decreasing errors before and after delivering services.

Quality management is considered to be a continuous process which aims to obtain better products with fewer errors. Improving the product quality can Lower after service costs, which result in lower cost of service and better performance of business (Parasuraman *et al.*, 1985; Sousa & Voss, 2002).

However, it should be mentioned that according to Galloway (1998), there is no definition of quality that is universally accepted in the academic literature.

The increasing attention and focus on quality at the end of the 20th century caused Juran (1995) to anticipate that the 21st century will be the "Century of Quality" (Juran, 1995, p. 2016).

More clarification of the meaning of quality generally and quality in the higher education sector specifically is presented in the section 2.4.1 Quality Perspectives for HE.

2.2 Quality Management (QM)

If quality is defined as "freedom from deficiencies" (Juran, 1998, p.2.2), and if management is designing and controlling a given context where individuals work together in teams to achieve effectively a predetermined objective (Weihrich and Koontz, 1993), QM is "a term referring to coordinated activities which direct and control the quality of

products and services of an organization" (Thawesaengskulthai, 2007, p.7), in order to achieve the organization's aims. Quality management is a strategy that leads to satisfied customers, and greater effectiveness of the organization (Roca-Puig *et al.*, 2006).

Continuous improvement is an essential part of quality management, concerning the ways in which organizations can improve their performance and strive to provide excellent services. Therefore, manufacturers and organizational managers give due care to the implementation of QM as a cornerstone of their business strategy. Successful manufacturers consider the application of quality management (QM) as an essential part of their business strategies (Buranajarukorn, 2006), as QM seeks to improve organizational performance (Linderman *et al.*, 2004). QM according to the ISO 9000, 9001 and 9004 can be defined as "all the activities that organizations use to direct, control, and co-ordinate quality"(Praxiom Research Group Limited, 2008). Linderman *et al.*, (2004) described QM as customer satisfaction, continuous improvement, and systems view of organization. Many organizations have concluded that their 'competitive abilities' can be enhanced and their strategic position be raised through effective QM (Anderson *et al.*, 1994).

QM by its tools can measure the status of quality, the gaps in service quality in an organization and can help actively in bridging the gaps to reach a level of quality that can satisfy both customers, owners or stakeholders of an organization. From being able to help in measuring and managing quality, which is a major challenge facing management, QM derived its importance. There is a consensus that these tasks are very important and difficult requirements facing management and managers alike (Cronin & Taylor, 1992; Brown *et al.*, 1993). Without these two aspects (measuring and managing), no accurate and sustainable development can be achieved. QM plays its designated role before and after measurement. Pre-development measurement



describes the baseline situation to clarify the gaps between current implementation and what should ideally be implemented from the customer's point-of-view. This in turn determines the areas for improvement and which, or how, services should be improved. This clearly shows how strong the relationship between development and measurement is (Cronin & Taylor, 1992) and the important role QM plays.

The ISO 9000, 9001 and 9004 definition is the one chosen for this research. To achieve the tasks assigned to QM, many tools have been invented to that end, including Total Quality Management (TQM), described in detail below.

2.3 Quality Management in Education

Since education has increasingly been seen as a service offering, educational institutions are currently facing unprecedented higher pressures to become more responsive and accountable to their various customers' needs and expectations (Goldberg & Cole, 2002; Sahney *et al.*, 2008). Not just education, but the whole public sector is facing increased pressure to prove that their services are customer-oriented and that they are improving their performance (Ramseook-Munhurrun *et al.*, 2010). Another source of high pressure towards quality is "the changing public and political expectations" and "the demand for quality" (Galloway, 1998, p.20), which represent more pressure towards quality. The "variety of stakeholders" in turn, with their different levels of participation and needs represents another aspect of pressure in the public sector (Galloway, 1998, p.21).

In fact, such pressures force educational institutions to develop their outcomes, be more capable, effective and customer oriented to gain a competitive advantage (Sahney *et al.*, 2008). Educational institutions, either general or higher, are obliged to be more effective, productive and efficient (Goldberg & Cole, 2002).

These developments have driven quality and QM to be one of the high priority issues in education (Sahney *et al.*, 2008) because of their ability to connect both processes and outcomes (Goldberg & Cole, 2002). The core foundation of QM's success in education is its proper adoption and implementation. Quality management can make a great difference in education as it did in industry once properly adopted (Tribus, 1993). On the other hand, educational specialists believe that quality has not been systematically attained in education (Goldberg & Cole, 2002). Still more needs to be done to improve quality in education.

In fact, education is not a 'pure' service offered to one specific customer. Rather, it is a service that has many diverse customers: parents, students, employers, industry and society as a whole (Firdaus, 2006; Sahney *et al.*, 2008; Ali & Shastri, 2010). An organization must know its customer in order to be able to measure the success or the failure of its commitment to quality (Michael *et al.*, 1997). However, determining the exact definition of the higher education 'customer' is one of the most tremendous challenges facing higher education improvement (Ali & Shastri, 2010).

In the literature review for definitions of customers in higher education, Michael *et al.*, (1997, p.109) stated that a customer in the higher education is: "the student as a consumer of knowledge and services, the future employer or graduate school as a consumer of the student product, and society as a whole as taxpayers and beneficiaries of the educational operations of the institution". This definition and its implications will be taken into consideration in this research and will be discussed later on.

2.3.1 Pressures facing education on quality

Educational institutions in general are facing huge pressure to achieve higher quality. This pressure is represented by the variety of customers and stakeholders the sector has, in addition to open competition with other educational institutions. Another aspect of



pressure comes from the national and international rankings for both schools and higher education. For example, in school education there are international ranking systems such as Trends in International Mathematics and Science Study (TIMSS) which focus on improving mathematics and science teaching and learning processes. These examinations are conducted every four years (IEA, 2010). Which means that unless providing good quality that compete other competitors or at least gain a good position, an organization will be considered a failure or a low graded organization. In the case of TIMSS the ranking will be for the whole educational system in the parts TIMSS measure. Internally ministries of education or other bodies make school ranking in accordance to the schools performance gathered by official reports such as OFSTED in the UK, which focus on the quality of the services provided in schools including surly education (OFSTED, 2014).

Academic Ranking

The situation is different for HEI since benchmarking started very early and there is a variety of methods for comparison between universities, nationally and internationally. The first appearance of an academic ranking of HEI started in the USA in the 1870s (Stella & Woodhouse, 2006). Academic ranking was first applied on the national level to make a general judgment of the universities' achievement nationally, and has developed more recently on an international level (Stella & Woodhouse, 2006). There are many ranking systems that drive HEI towards quality, some of them at a national level like the National University Ranking in USA, or The Sunday Times University Guide in the UK and others at the international level, such as Times Higher Education, ARWU (Academic Ranking of World Universities) best known as the Shanghai Jiao Tong ranking (ARWU, 2011), the Spanish Webometrics Ranking of World Universities that concentrates on the academic quality web pages of universities (webometrics, 2011), and many other academic ranking systems. Some of these academic rankings specialize

in one academic aspect such as the UK Research Assessment Exercise (RAE), which focuses on their research excellence and has inspired universities to managing their research well (RAE , 2009).

These academic rankings were much criticized by many academic groups, but nevertheless, they worked well, generating huge pressure on HEI towards quality and affecting their reputation either positively or negatively according to the level of quality they achieved, and played a significant role in the national and international competition between HEI. These rankings led to real changes in student applications and income for institutions (Stella & Woodhouse, 2006).

The governmental pressure presented in the governmental bodies of quality assurance such as the QAA in the UK or the NCAAA in the KSA represent another pressure towards quality. The Quality Assurance Agency for Higher Education (QAA) mission is to monitor and advice on the UK HEI quality standards. In order to provide students as best learning experiences as possible (QAA, 2012). For the KSA NCAAA, its mission statement was:

“To encourage, support and evaluate the quality of post secondary institutions and the programmes they offer to ensure that:

- the quality of student learning outcomes,
- the management and support services provided within institutions,
- the contributions to research and the communities served by post secondary institutions, are equivalent to high international standards” (NCAAA, 2010, website).

Failing to achieve the requirements of quality bodies of applying quality standards will result in low ranking of that HEI, which in turn can effect negatively the satisfaction of both customers and stakeholders and can make a reduction of the financial resources of that HEI.

ISO 9001/2000

Another pressure educational institutions face in improving quality is standards. In general, QM standards lay down systematic

methods to ensure that services and products meet customers' expectations (ISO.org, 2011). "When products, systems, machinery and devices work well and safely, it is often because they meet standards" (ISO.org, 2011, website).

The most influential international standards are the ISO 9000 series (Martínez-Costa *et al.*, 2009). The ISO 9000 series first appeared in 1987 (Hoyle, 2001; Martínez-Costa *et al.*, 2009). It then spread around the world reaching more than 1 Million certified companies by 2011 (ISO.org, 2011).

Hoyle (2001) in his ISO 9000 Quality Systems Handbook, gave an overview of ISO 9001, its role and purpose. He clarified that it is an international standard for quality management that specifies what is required and recommended for designing and assessing management systems (Hoyle, 2001). He stated that the purpose of ISO 9001 is to define the criteria for a quality management system for organizations to demonstrate their ability to obtain customer confidence that products and/or services meet their requirements (Hoyle, 2001). According to its website "ISO International Standards ensure that products and services are safe, reliable and of good quality" (ISO 2013, website).

2.4 Quality Management in Higher Education Institutions

The increased interest in applying QM in recent decades to many HEI (Mergen *et al.*, 2000) was due to the economic and governmental pressures that emerged at that time. In the 1990s in particular, declining funding for HEI in the USA was one reason for TQM to develop in HEI, to help them manage their resources effectively and achieve the required quality with lower budgets (Michael *et al.*, 1997).

In addition, Harvey & Green (1993, p.2) in their most cited paper stated that "linking of quality with cost effectiveness has given new urgency to the analysis of quality in higher education. So, for a variety of reasons, quality matters" and HEI had to rapidly respond to that interest. The 'race' to set and apply quality systems in the educational field

started in the late 20th century in countries all over the world (Hidalgo *et al.*, 2011). Notably, such a ‘race’ was even much stronger in the HEI where “universities are involved to obtain the status of campus of excellence as the highest icon of quality” (Hidalgo *et al.*, 2011, p.2972), which represent the competition between HEI to obtain higher quality than others.

In support of that new perspective, HEI were forced to interact in a different area: to be customer-oriented and more efficient in managing financial resources (Owlia & Aspinwall, 1996) and to provide quality education with lower costs (Michael *et al.*, 1997). The success stories of TQM in the industrial context gave further encouragement to HEI to pay more attention to QM (Grant *et al.*, 2004). Notably, following the review of several previous studies discussing QM applications in HE, Mergen *et al.*, (2000) found a shortage of discussion about well-structured frameworks in the QM literature adopted to the educational context.

2.4.1 Quality perspectives for HE

“Quality means different things to different people” (Harvey & Green, 1993, p.1).

“Quality is what the customer says it is, particularly in the case of higher education because the “product” generated by higher education is not a visible, tangible product that can be held, analysed and inspected for defects” (Michael *et al.*, 1997, p.104).

In order to determine the meaning of quality in education, there is a need to know the types of quality and which of them best suit education. Harvey & Green (1993) in their so much cited paper that is considered a seminal paper according to the number of citations it got (Cited by 1140. See Google Scholar) believed that quality can be viewed from five different perspectives: exception, perfection, fitness for purpose, value for money and as transformative. To understand the nature of quality in HE, we should determine which of these five perspectives best suits HE. This discussion will be summarized thus:

- 1- In their first perspective of quality, Quality as Exceptional, Harvey & Green (1993, p.8) say that 'quality' in this context, means:
 - a. a special thing that makes an organization distinctive from other organizations;
 - b. "exceeding very high standards"; and
 - c. passing a minimum set of required standards.
- 2- Quality as Perfection: Harvey & Green (1993) state that quality here focuses on processes. It stipulates standards or criteria and aims to perfectly meet them. This can be clarified as: "zero defects and getting things right first time" (Harvey & Green, 1993, p.8).
- 3- Quality as Fitness for Purpose: This perspective focuses on function as an indicator of quality. It relates to the purpose of a service or a product and answers the question: to what extent does the product or service fit its purpose and fulfil its assigned role? (Harvey & Green, 1993, p.9).
- 4- Quality as Value for Money: Such an approach focuses on the reduced cost for high standards specifications of a product or service, which means that quality is equal to the money paid for that delivered product or service (Harvey & Green, 1993, p.15).
- 5- Quality as Transformation: the quality of service provided 'directly' to the consumer who participates, while the service enhances and empowers him (i.e. the student, in education). The quality in education here is:
 - a. Enhancing consumers, e.g. effecting changes in consumers which enhance them; and
 - b. Empowering consumers, e.g. giving power to consumers to "to influence their own transformation" (Harvey & Green, 1993, p.19).

As a result, it could be said that education, for Harvey & Green (1993), is not merely a service provided to a customer. It is rather a continuous process that transforms a participant, whether researcher or student, by empowering and enhancing them. “This leads to two notions of transformative quality in education: enhancing the consumer and empowering the consumer” (Harvey & Green, 1993, p.18).

Although the fifth perspective above is most directly concerned with pure educational quality, HEI are by nature organizations, and therefore concerned with all perspectives of quality. More particularly, they are determined to be distinctive from other, similar organizations in the same field; to exceed higher standards of quality for HEI; set specifications and work professionally to perfectly meet them, enhancing students, researchers and other consumers and empowering them to “influence their own transformations” (Harvey & Green, 1993, p.19).

2.5 Measuring and Developing quality

There are many QM and QM-related approaches such as Lean, TQM, ISO 9001, ISOQAR, Six Sigma, Investors In People (IIP), Business Excellence Model, EFQM Excellence Model, Customer Service Excellence (CSE), Malcolm Baldrige National Quality Award (MBNQA), RBV and the Deming Award that is used in developing and measuring the performance of organizations in HE or other sectors. In general education there are also specialist frameworks, such as the OFSTED Framework.

In their related area, Quinn *et al.*, (2009) aimed to identify and evaluate various techniques used for quality improvement and measurement in higher education. They believe that in educational institutions, measuring customer satisfaction is considered by educators as one of the great challenges facing quality movement (Quinn *et al.*, 2009). This challenge was one of many, in efforts to improve quality in higher education.

They also investigated two difficulties hindering improved quality in higher education, namely: defining and measuring the customer's perception (see also Ali & Shastri, 2010). They provided a historical examination of the applied techniques for quality improvement in higher education, identifying their similarities and differences in three main service areas: "academic, administrative and auxiliary functions" (Quinn *et al.*, 2009, p.139). One of their findings was that historically, TQM enjoyed the highest number of applications in higher education. Another was that there are, in fact, some quality improvement success claims; however, "very little actual analysis has been provided so far that quantifies such improvements and examines the costs and benefits of quality improvement efforts" (Quinn *et al.*, 2009, p.151). They finally insisted that better data is needed to justify using these techniques for improving quality in higher education.

The effectiveness of the means of measuring and developing the performance of HEI, was raised by Tambi *et al.*, (2008). After a comprehensive analysis of performance measurement in established models, they found that using performance indicators for measuring higher education institutions' performance "for ranking purposes is unfounded" (Tambi *et al.*, 2008, p.997) since it is difficult for higher education inputs and outputs to be directly related to each other. All that performance indicators can achieve is the indirect measurement of the achievement of desired objectives, considering the ambiguity of their intended meanings (Tambi *et al.*, 2008). Also, they argued that the ISO 9000 had not made good progress in higher education, and that TQM, applied in American higher education institutions from the late 1980s, also had not made much progress in other parts of the world (Tambi *et al.*, 2008).

More specifically, they quoted Pollitt (1990), mentioning that the measurement of HE quality outputs "may prove time-consuming and costly as well as methodologically complex" (Tambi *et al.*, 2008, p.998).



They finally recommended that such performance indicators should be restricted in use to highlight areas of interest in the HE system.

From another aspect, some QM theories are based upon certain specific cultural values, attitudes and mentalities and might be inappropriate for application in other environments that have different cultural values, attitudes and mental modalities (Doktor *et al.*, 1991). For successful implementation, attention should be paid to the environment in which the theory is to be applied (Miles, 1964; Odiorne, 1966); however, this research will take these dimensions into consideration when identifying the future requirements for enhancing QM in CCs in KSA.

However, the debate on the best ways of measuring and managing quality in HEI will continue, since no consensus on that topic is yet reached (Becket & Brookes, 2008).

Some of the most important approaches and tools for measuring and managing QM will be reviewed in this chapter.

2.6 QM & TQM in literature Indicators

According to Quinn *et al.*, (2009), TQM, historically speaking, has enjoyed the highest number of applications in higher education especially in the 1990s. Therefore, TQM as one of the most important approaches of QM will be reviewed in the following lines.

Because of the importance in QM literature TQM has, preliminary Print Media Indicator (PMI) research was conducted to find out the extent to which TQM has drawn the attention of QM specialists, and secondly, to find out how strong the relationship is between QM and TQM. In the following graphs the number of publications related to QM & TQM is shown from data retrieved on ProQuest and EBSCO respectively, for the period 1982-2010. This data refers to articles in peer-reviewed scholarly journals. The process was to initially count any documents containing the two words 'Quality Management' in their titles without the word 'total,' and then to count documents containing the words

'Total Quality Management' in their titles. The figures beneath show the results obtained:

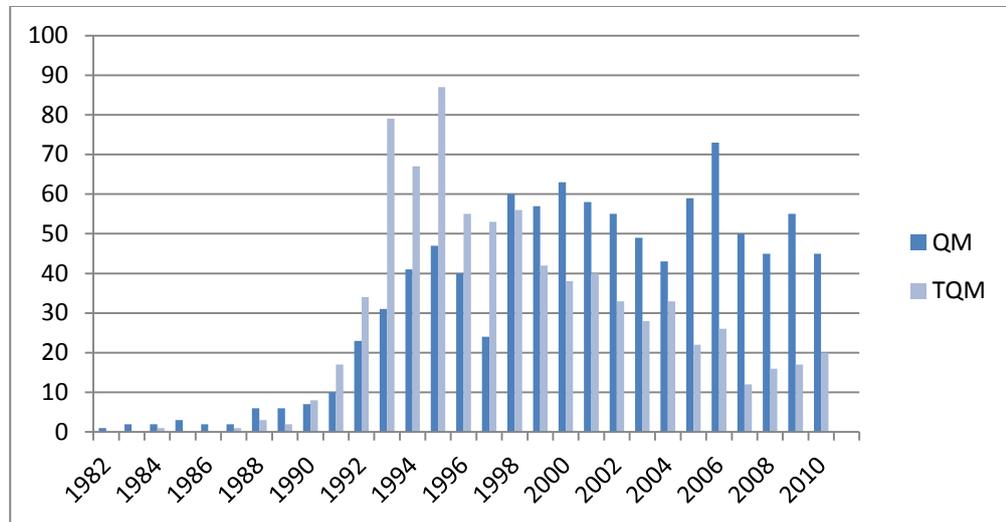


Figure 2: ProQuest Data

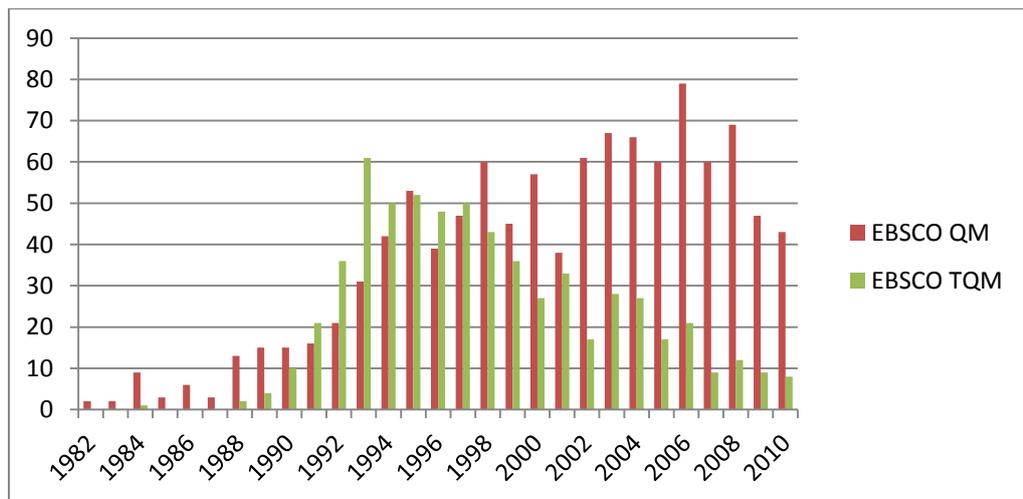


Figure 3: EBSCO Data

Figures 2 and 3 clearly show the strong relationship between QM and TQM and the vital role TQM has played in enhancing interest in QM. Although TQM is one of the approaches used for QM, as can be seen in both charts, from 1990 to 1997 TQM featured more than QM in general. This interest in TQM declined gradually from 1999, reaching its lowest level in 2007 in both data bases, and then started weakly to rise again. These results support the statement by Juran (1998, p.14.3), that TQM was then the most significant QM tool of all, and the most "frequently

used term in the United States" for quality management itself. Martinez-Costa *et al.*, (2009, p.495) believe that ISO 9001:2000, with its enormous spread across the world (more than 1 million registered companies), is more in line with a TQM philosophy than previous versions of the standard. "ISO 9001/2000 has appeared, purporting to be more in line with the TQM philosophy".

Although it is not the current QM trend in Western blue chip companies, TQM still enjoyed popularity across the world (Grant *et al.*, 2004) especially in the developing countries, in Japan, and Asia in general (Thawesaengskulthai & Tannock, 2008).

2.7 Total Quality Management (TQM)

After the breakout of World War II, focus on quality as a critical component of war preparations had begun. In this context, the US military depended on Walter Shewart's statistical process control techniques in order to obtain better quality military products (ASQ, 2010).

The concept of 'Total Quality' first emerged in Japan after the end of World War II. During this period, Japan was defeated, destroyed and in a dire need of rebuilding its collapsing economy. For that reason, the Japanese welcomed the timely ideas on quality proposed by W. Edwards Deming and Joseph M. Juran, concentrating on the processes carried out by organizations from the perspective of their direct users instead of by the previous inspection methods (Fukui *et al.*, 2003; ASQ, 2010).

Within thirty years, Total Quality Management successfully enabled Japan to become an advanced, quality-driven, knowledge-based and wealthy country. Meanwhile, the total quality revolution began globally, and TQM helped Japan to compete with – and in many respects – surpass its American and European rivals.

As a result of this noteworthy Japanese success, TQM became one of the most pivotal issues for the management and leadership of organizations seeking to enhance their performance. In addition, quality

was deemed a means for achieving perfection in those organizations (Homud, 2000).

By the end of the 1980s, some experts emphasized that TQM should be standard practice for companies seeking success. Oakland (1989) argued that “TQM needs to rapidly gain ground and become a way of life in many organizations” (Oakland, 1989; cited by Psychogios, 2007, p.40). Moreover, at that time other manufacturers considered TQM “a necessity of life for us” (Peak, 1993, p.21).

Since management success is strongly connected to product quality, TQM became vital to achieve high productivity and continuous quality (Al-Khateeb, 2007). Marti´nez-Costa *et al.*, (2009) in their paper, after reviewing the literature of TQM and ISO, emphasized the importance of TQM to enhance the performance of academics and stated that there is an “agreement regarding the positive impact of TQM on performance” (Marti´nez-Costa *et al.*, 2009, p.495).

2.7.1 TQM in Higher education

Since management success is strongly connected to product quality, TQM became vital to achieve high productivity and continuous quality (Al-Khateeb, 2007). Marti´nez-Costa *et al.*, (2009) in their paper, after reviewing the literature of TQM and ISO, emphasized the importance of TQM to enhance the performance of academics and stated that there is an “agreement regarding the positive impact of TQM on performance” (Marti´nez-Costa *et al.*, 2009, p.495).

TQM was first applied in HEI during the 1980s when American and British Higher Education Institutions found themselves required to act like commercial firms in a severely competitive market (Williams, 1993; Doherty, 1993; Munoz, 1999). In fact, they were required to enhance quality, increase the number of students and reduce the cost of their services. Williams (1993, p.230) stated four reasons and means of instilling TQM in higher education:

- 1- Membership of universities' governing bodies by business people who had seen the benefits of TQM in their own fields of work;
- 2- Business studies and Engineering departments that taught TQM to their students and saw its benefits were applying it in their respective departments and universities;
- 3- In Britain, the government was advocating quality and encouraging higher educational institutions to focus on mass higher education without increasing financial resources; and
- 4- The rapid diversification of the functions of many universities during the 1980s.

Indeed, HEI saw TQM as an effective and fundamental means of ongoing development and of achieving basic changes in organizations (Jashim Uddin, 2008). As highlighted by Munoz (1999), the reason of obtaining ongoing development and achieving fundamental change for TQM in business were behind its application in HEI.

In a similar vein, Grant *et al.*, (2002) reviewed nine random articles released in 2002 dealing with quality management in higher education institutions in the USA. They clarified that the selected sample actually represented the entire TQM population in American higher education institutions. Their research was built on the foundation of previous research conducted by Mergen *et al.*, (2000) that concluded the limited use of TQM in higher education institutions. They tried to identify what they called "the three parameters of quality: quality of design, quality of conformance and quality of performance" in those articles (Grant *et al.*, 2002, p.207). Moreover, they aimed to discover "to what extent US higher education institutions integrated these three TQM aspects, and to identify "explicit evidence that the three parameters of quality were present" (Grant *et al.*, 2002, p.213).

Their findings in each article showed that quality of design and conformance were clearly present, while that was not the case with quality of performance. As a result, quality of performance was deemed



to be missing. One suggested reason for that result was the complexity of gathering external performance data. Accordingly, they insisted that externally gathered performance data (especially from the organization's customers) is a very crucial dimension; since it shows the products' quality and how well the organization's goals have been achieved in practice. Finally, they concluded their article with the following clear-cut statement: "in the absence of performance measures, continuous improvement is non-existent" (Grant *et al.*, 2002, p.214).

In the conclusion it could be said that, although TQM was applied in American higher education institutions from the late 1980s, however, it had not made much progress in other parts of the world (Tambi *et al.*, 2008).

It could be said finally, that although TQM was the dominant QM approach in the 1990s, this is not the case currently. It is no more the current QM trend in the world especially in the west (Thawesaengskulthai & Tannock, 2008).

In order to improve organization performance data needs to come from the customers, therefore, other approaches such as service quality with its tool SERVQUAL that measures the perception of customers regarding the services they receive would have an advantage over TQM.

2.8 Service Quality

Wisniewski (2001, p.381) emphasized that service quality is difficult in both definition and measurement, since there is "no overall consensus merging on either." He cited many previous writers supporting this claim (Parasuraman *et al.*, 1985; Lewis & Mitchell 1990; Dotchin & Oakland 1994a, 1994b; Gaster 1995; Ausbonteng *et al.*, 1996) (Wisniewski 2001). The same was emphasized by Tan *et al.*, (2013); however, Wisniewski (2001, p.63) later provided his own definition for service quality, stating that it is "the difference between customer's

expectations of excellent service and perceived service". It might be said that service quality is determined by the extent to which the service meets the customer's needs.

'Service' means the economic activities creating value and providing benefits to the customer at a specified time and place, in order to reach a change desired by the customer (Lovelock, 2001; cited by Oliveira, 2009, p.4). This activity is often "produced in the presence of the customer" (Berry *et al.*, 1985, p.44); thus representing one of the most distinguishing features of service in comparison with product or goods production.

Notably, the contribution of service industries is becoming larger every year (Bayraktaroglu & Atrek, 2010; Ramseook-Munhurrun *et al.*, 2010) making service quality a widespread topic covered by huge number of books and academic papers (Dotchin & Oakland, 1993).

As highlighted by Juran (1974), service is the customer's intended target and means of buying products. Service quality is becoming a pivotal factor in gaining competitive advantage for organizations (Dotchin & Oakland, 1993) especially in the private sector (Galloway, 1998), improving services, decreasing costs and enhancing profitability (Galloway, 1998; Bayraktaroglu & Atrek, 2010). Customer satisfaction is often reached through improving the quality of the provided service, which, if successfully implemented, can reach or even exceed customer expectations.

The provision of high quality services is a prerequisite for success and even survival for firms in service industries (Parasuraman *et al.*, 1988).

Service providers earn their profits and maximize sustainability by achieving customer satisfaction. Customers are satisfied once the services provided to them meet or even exceed their expectation (Ali & Zairi, 2005). Yet, customers are becoming very sensitive to variety of service features or dimensions (Sachdev & Verma, 2004). Based on the



vital role it plays, service quality has been a frequently featured topic in service marketing literature during the last three decades (Kang & James 2004).

According to Parasuraman *et al.*, (1988), in some cases, customers can be satisfied with a service even though they believe it is not of high quality. This can mean that although the organization providing that service is already attracting its clients, it is not in a safe position from other competitors providing satisfactory services for better quality unless there is no competition.

There are several challenges facing a service industry that distinguishes it from a goods and products industry, which are:

1- Customer's Presence & Reaction:

As organizations seek customer satisfaction, which leads to profits and sustainability, the customer's presence and interaction during service delivery become a greater challenge to them (Dotchin & Oakland, 1993; Galloway, 1998; Ramseook-Munhurrun *et al.*, 2010; Sichtmann *et al.*, 2011) as "the nature of this interaction has been recognized to be a critical determinant of satisfaction with the service" (Surprenant & Solomon, 1987, p.87). Such presence and interaction between service provider and customer has increased "the probability of error on the part of employees and customers" (Ramseook-Munhurrun *et al.*, 2010, p.38).

2- Intangibility:

One of the major differences is between intangible services and tangible products. Services are intangible since they are usually actions or performances, not objects or products. They cannot be "seen, touched or tasted" (Sichtmann *et al.*, 2011, p.3). This makes service quality more difficult to evaluate than products' quality, from the perspective of both service provider and customer (Parasuraman *et al.*, 1985; Yeo, 2008). Compared to goods,



services are variable, changeable, linked to human modes, moods and attitudes; subject to changeable circumstances when provided, and therefore, cannot be equitably judged. “The intangibility of services has made it difficult for performance standards to be set, monitored and measured” (Yeo, 2008, p.281).

3- Immediateness:

There is no time available for evaluating, testing or double-checking a service before it is provided to customers (Parasuraman *et al.*, 1985), whereas goods enjoy more time to be well-prepared and checked before delivery to customers. This is a disadvantage in the case of a service. Services are simultaneously produced and consumed in the same moment, which is one of the major features and challenges for services and service providers (Cuthbert, 1996).

4- Service Delivery Impact:

The service delivery process has a strong effect on service quality (Parasuraman *et al.*, 1985; Dotchin & Oakland, 1993; Hsieh *et al.*, 2012). A service might be well-planned and designed, but at the point of delivery, if badly delivered, all other advantages can be easily destroyed. As a result, services can be described as fragile goods.

A service has many challenges, compared with goods, because the quality of the service can be affected by its nature as intangible, immediate and fragile, or by its presentation being affected by the customer’s presence and reaction. To avoid misjudging the quality of the service, the perspective of both the service provider and customer should be taken into account by researchers when measuring or evaluating service quality (Czepiel, 1990).

Grönroos (1990) posed two questions to distinguish between the two sides of provided services: 'what is delivered?' (technical quality) and 'how is it delivered?' (functional quality).

Taking into consideration that the "concept of quality refers to the match between what customers expect and what they experience" (Ali & Zairi, 2005, p.8), in order to have service quality, the service provided should meet or exceed the customer's expectations. "Any mismatch between expected and perceived service is a 'quality gap'" (Ali & Zairi, 2005, p.9). These gaps represent the organization's main areas for development. Adequate understanding of consumer expectations and needs allow "managerial judgement to be exercised from a position of knowledge rather than guesswork" (Donnelly *et al.*, 1995, p.20) to better manage organizations' resources and customers' expectations.

ISO's (1992) definition of service quality also emphasized the customer's needs: "supplier's activities are at the interface with a customer and the results of all suppliers' activities are to meet customer's needs" (ISO, 1992; cited by Ali & Zairi, 2005, p.8).

2.8.1 Importance of Service Quality in HE

The economic environment motivated most organizations, including university divisions and course managers, to give seriously think of service quality issues (Cuthbert, 1996).

Accordingly, service quality has been given prime attention in service industries, including HEI (Cuthbert, 1996; Telford & Masson, 2005). One of the main reasons is the competition for students among HEI internationally (Cuthbert, 1996). Another reason is HE's quality assurance systems placing the experiences of their students as one of the evaluation criteria (Cuthbert, 1996).

Determining the Customer in HE in KSA

Galloway (1998) emphasizes that despite being the "primary participant", the basic customer and service recipient in HE is the student; however, there are other important role-players in the wider

concept of 'customer,' such as "industry, parents, government, and even society as a whole." (Galloway, 1998, p.21).

Cuthbert (1996) emphasized that the customer in HE is the government, since it is both funder and representative of society. Therefore, government's requirements should be satisfied and public expectations should be met (Galloway, 1998). In addition, service quality in HE is influenced by increased social and political pressure (Galloway, 1998).

In Cuthbert's terms, in KSA the main customer may be seen to be the government, as it is the only funder of HE, since HE services are provided free of charge. This situation is more significant, taking into consideration the fact that monthly stipends are provided to students by the state to encourage them to access and complete their studies in HE. Government in the KSA is also the main representative of society. However, still students are considered customers as they represent the service recipient. The government itself, from another side, want students to be satisfied with the educational services provided to them. So for HEI in KSA to have the government satisfied they have to follow its procedures, apply its standards and achieve its goals. And to have its students who also represent service recipient i.e. customers, satisfied, they have to meet or exceed their expectations.

2.8.2 Measuring Service Quality

Service quality is used as a means of updating and improving provided services (Sulek & Hensley, 2010).

In order to measure the quality of service, the customer who is receiving the service should be directly asked (Donnelly *et al.*, 1995). For measuring service quality, SERVQUAL is considered to be one of the best tools for measuring the gap between customer expectations and experiences (Berry *et al.*, 1985; Parasuraman *et al.*, 1985). It measures the quality of service by measuring the customers' satisfaction during or after providing or delivering the service to them.

The SERVQUAL tool, constructed by Berry, Zeithaml and Parasuraman in 1985, has become the most common tool for measuring service quality (Wisniewski, 2001; Shahin, 2006). Despite criticism, it has been used in most service industry (Bayraktaroglu & Atrek, 2010) to measure service quality. It was used in many industries such as “hospitals (Bakar *et al.*, 2008), universities (Galloway, 1998), police services (Donnelly *et al.*, 2006), banks (Kangis & Passa, 1997), travel agencies (Luk, 1997) and public utilities (Babakus & Boller, 1992)” (Ramseook-Munhurrin *et al.*, 2010).

This variety of application shows the high level of confidence enjoyed by SERVQUAL as a well-prepared tool for measuring service quality (Ramseook-Munhurrin *et al.*, 2010). It can be considered a basic skeleton –as it is called by Parasuraman *et al.*, (1988, p.31)- “encompassing statements for each of the five service quality dimensions. This skeleton, when necessary, can be adapted or supplemented to fit the characteristic or specific research needs of a particular organization”.

Furthermore, research on SERVQUAL “has been widely cited in the marketing and retailing literatures” and its “use in industry has become quite widespread” (Brown *et al.*, 1993, p.127).

A case in point is that Cronin & Taylor’s (1992, p.55) study aimed to test an alternative to SERVQUAL for measuring service quality, and investigate the relationships between “service quality, consumer satisfaction, and purchase intentions”. They argued that “the current operationalization of service quality confounds satisfaction and attitude”. They also believe that a consumer’s satisfaction has a significant effect on his “purchase intention.” At the same time, they emphasized that “service quality has less effect on purchase intentions than does consumer satisfaction”, and, as a result, the SERVQUAL as a measurement tool for service quality - since it relates service quality to consumer satisfaction, directly leading to purchase intention - becomes



inadequate. Instead, they suggest that service quality "should be conceptualized and measured as an attitude" (Cronin & Taylor's, p.63).

However, they concluded that the 22 performance criteria used by Parasuraman *et al.*, (1988) for assessing their SERVQUAL's five dimensions "adequately define the domain of service quality" (Cronin & Taylor, 1992, p.85). However, according to Schneider & White (2004), SERVQUAL is still "very popular if not the most popular measure for service quality for researchers and practitioners".

Moreover, in their study on a cell-phone service sample, Kang & James (2004, p.266) emphasized that "SERVQUAL is only reflects the service delivery process". Their study empirically examined the "European perspective (i.e. Grönroos' model)" suggesting that service quality consists of three major dimensions: "technical, functional and image" and that image is a "filter in service quality perception."

Later on, Mamudo (2007, p.13) reiterated Kang & James' (2004) findings in the telecommunication industry. Reviewing previous studies conducted in the mobile telecommunications industry in North America, Europe, Asia and other parts of the world, the researcher emphasized that "when it comes to measuring confirmation/disconfirmation issues from the customer's side, the telecommunications industry does not have the proper tools". Both Kang & James (2004) and Mamudo (2007) concur that SERVQUAL does not cover all the required aspects in the telecommunication industry -a service industry- especially in measuring conformation or disconfirmation.

According to Sachdev & Verma (2004), this point raised by Kang and James (2004) and Mamudo, (2007) may occur in the telecommunication industry because consumers are becoming increasingly aware of their needs and demand services of higher standard, which make it difficult for services providers to manage and measure services in an effective manner; however, this is out of this research range.

SERVQUAL is one of the most extensively used tools for measuring service quality in public services (Wisniewski, 2001). As it is a tried and tested tool, it can be used relatively for benchmarking purposes (Bryslan & Curry, 2001). SERVQUAL got that in comparison of other tools also for its wealthy diagnostic value (Carrillat *et al.*, 2007) – over SERVPERF-, which can determine service shortages and use that to allocate resources for improving service quality (Carrillat *et al.*, 2007; Andronikidis, & Bellou, 2010; Benlian *et al.*, 2011). In addition, SERVQUAL is better even, according to Parasuraman *et al.*, (1993) and Andronikidis, & Bellou, (2010), than other alternative instruments in its practical application “as direct measures, such as SERVPERF and weighted SERVPERF, tend to magnify customers’ assessments”.

Despite the criticism it received regarding its reliability (Cuthbert, 1996), its “theoretical and operational grounds” (Wisniewski, 2001), or its ability to “capture the role of “Tangibility” in determining overall customer satisfaction in the service under examination” (Pantouvakis, 2010), SERVQUAL remains the ‘predominant’ tool for service quality measurement. As no other tool that is “better but equally simple” emerged (Wisniewski, 2001).

Many authors mentioned that SERVQUAL is one of the widely speared scales accepted for measuring service quality and customer satisfaction as well as updating and improving provided services (Payne & Holt, 2001; Wisniewski, 2001; Bowen & Ford, 2002; Kang & James, 2004; Shahin, 2006; Andronikidis, & Bellou, 2010; Martinez & Martinez, 2010; Sulek & Hensley, 2010; Atrek and Bayraktaroğlu, 2012; Marinković *et al.*, 2013; Jingjun *et al.*, 2013). In their study for measuring service quality in higher education, Atrek and Bayraktaroğlu (2012, p.423) clarified that their study resulted that the SERVQUAL adopted scale is a suitable tool for measuring service quality in higher education and stated that it is “a more sufficient instrument to be used in higher education than a sector specific scale”. The same was mentioned by



Petruzzellis *et al.*, (2006). They believe that SERVQUAL is a proper instrument for measuring service quality in universities and for measuring students service quality perception (Petruzzellis *et al.*, 2006) See also (Narang, 2012).

Calvo-Porrall *et al.*, (2013, p.603) made their analysis in their article based on a modified SERVQUAL instrument. They mentioned that among the many instruments proposed for measuring service quality, the “most enduringly popular, widely cited and best researched method of evaluating service quality is SERVQUAL”. They, as it is a tested instrument, believe it can be “used comparatively for benchmarking purposes”. They also added that

“There is substantial body of evidence in HE literature suggesting that the SERVQUAL instrument is effective in measuring service quality in the HE environment, and is especially useful in offering guidance for changing shortcomings to strengths (Harris, 2002; Angell *et al.*, 2008; Yang, 2008; Hussain and Birol, 2011; Al-Alak and Alnaser, 2012)” (Calvo-Porrall *et al.*, 2013).

In a similar vein, Ledden *et al.*, (2011, p.1243) supported the use and suitability of SERVQUAL for measuring service quality in higher education by stating that, in spite of the ongoing debate regarding the shortcomings of SERVQUAL, because of its wide application “it is considered to offer an appropriate conceptualisation and measurement platform” (Ledden *et al.*, 2011). See also: (Narang, 2012).

Lupo (2013) added also that SERVQUAL is a suitable instrument for measuring student satisfaction.

Mai (2005, p.865) in his article titled: (A Comparative Study Between UK and US: The Student Satisfaction in Higher Education and its Influential Factors) mentioned that much of the research in education quality was based on SERVQUAL. For the aim of comparing “postgraduate business school students’ perceptions of the education

they receive in the US and UK”, Mai (2005) built his questionnaire on the SERVQUAL framework.

From another aspect SERVQUAL was used to measure quality service qualitatively, although it is a quantitative instrument. This was applied by Yeo (2008) who used SERVQUAL dimensions to build two of his research questions in a qualitative methodology for measuring service quality. He stated that this choice was built upon the fact that SERVQUAL has influenced much of the research in service quality. Yeo, (2008, p.272) insisted that SERVQUAL has an advantage over the other models in service quality including those prepared only for education institutions as SERVQUAL “encompasses the whole-person experience rather than the experience of teaching”. He clarified his preference of SERVQUAL over the other instruments as it incorporates both expectations and experiences together, which eliminates bias by students and make them “more objective and less erratic”.

Many studies also have applied the SERVQUAL instrument to measure student perception of service quality and found it suitable for higher education such as Anderson (1995), Telford & Masson (2005), Narang (2012) and Lupo (2013).

2.8.3 Critique of SERVQUAL

In their criticism of SERVQUAL, Donnelly *et al.*, (1995) pointed out that although SERVQUAL was intended to measure satisfaction through customer perception of service delivery, it does not provide any opportunity to assess customer expectations. They believe that the managers’ reason for conducting service quality measures is to convince stakeholders that the organization is focusing on customers and paying attention to their needs. They also stated that “such surveys can disguise fundamental problems in service provision that need to be addressed as a matter of urgency” (Donnelly *et al.*, 1995, p.16).

From the point of view of the average customer, quality is not an easily defined notion. As stated by Parasuraman *et al.*, (1985, p.41),



“Quality and its requirements are not easily articulated by consumers”. This makes any judgment on ‘how good the quality of service is’ difficult for customers, since they do not have a concept of perfection or the means to give a clear opinion. This difficulty is clarified when compared with evaluating goods. In addition, customers sometimes, when asked about their expectations of service, tend to answer according to what they think firms would offer -according to customers’ experience- not what they should offer. A fourth side of the difficulties encountered when measuring services is the evaluation of “the process of service delivery” (Parasuraman *et al.*, 1985), in addition to evaluating the service provided. Therefore, it is not just the quality of the service but the quality of delivery process which can deeply affect the quality of the service itself. Customer participation is another aspect of a service industry. Customer participation in the service delivery is crucial to service quality. It could strongly affect, both positively or negatively, the measurement of service quality. As was pointed out by Lovelock & Young (1979), that the customer participation could also help to reduce the cost, widening the benefits obtained by service providers.

According to the above lines, there are four difficulties in measuring service quality, as compared to goods quality:

1. Since some service quality measures are made to convince stakeholders, this can hide basic problems in the provision of the service.
2. Criteria for service quality are not very clear for most consumers, making evaluating services difficult for customers, in comparison with evaluating the quality of goods.
3. The integral nature of service delivery that can affect the service itself.
4. Customer’s participation, which can strongly affect, positively or negatively, the measurement of service quality.

2.8.4 Determinants/Dimensions of SERVQUAL

Berry *et al.*, (1985) identified ten basic determinants of service quality for most (if not all) industries of customer service, which can be summarized as :

1. Reliability: performing right, from the first time;
2. Responsiveness: employees' willingness or readiness for providing the service;
3. Competence: possession of the required skills and knowledge to perform the service;
4. Access: approachability and ease of contact;
5. Courtesy: politeness, respect and consideration;
6. Communication: keeping customers informed and listening to them;
7. Credibility: trust, worthiness and honesty;
8. Security: the freedom from danger, risk or doubt;
9. Understanding the customer; and
10. Tangibility: the physical evidence of the service.

Parasuraman *et al.*, (1988) regrouped these above-mentioned dimensions into five major categories, namely:

1. Tangibility;
2. Reliability;
3. Responsiveness;
4. Assurance; and
5. Empathy.

In HE those dimensions meanings can be clarified according to Parasuraman *et al.*, (1988) SERVQUAL items, as in the following lines:

Tangibility is about equipment, physical facilities and personal appearance of staff (faculty).

Reliability is about the level of dependency, commitment, problem solving, sympathetic and reassuring and records keeping.

Responsiveness is about accuracy on services timing, prompt services, willingness to help students and deducting enough time for students services.

Assurance is about trust between students and staff/faculty, staff/faculty politeness, and staff/faculty adequate support and ongoing development to do their job well.

Empathy is about paying students individual attention, knowing students needs, HEI having their students' best interests at heart and convenient working hours.

SERVQUAL has been applied and used for measuring service quality in both private and governmental sectors. It allows customers to evaluate service quality according to the five dimensions of reliability, responsiveness, assurance, empathy, and tangibility (Parasuraman *et al.*, 1988).

Notably, the SERVQUAL model has been continuously developed by Parasuraman, Zeithaml and Berry during the following years of 1985, 1986, 1988, 1991, 1993 and 1994 (Wisniewski 2001) in order to make it fit all kinds of service organizations (Parasuraman *et al.*, 1988). The SERVQUAL questionnaire was "arrived at after considerable empirical psychometric testing and trials so that it could be applied across a broad range of service organizations with only minor modification" (Donnelly *et al.*, 1995, p.17).

Based on the service quality literature review, it can be concluded that SERVQUAL is a useful tool that can be easily adapted to any service context to determine whether or not the customer is satisfied, and to what extent he is satisfied. It assesses which dimension of the five scores higher in customer expectations, and how these dimensions are rated by customers, in addition to assessing the gap between customer expectations and their experiences in the services they received. When the customer is satisfied during and/or after the provided service, the organization (service provider) is succeeding. If the customer is not



satisfied, the organization is not providing good quality and SERVQUAL – via its various dimensions – will help in determining the causes of such dissatisfaction (quality gaps) and what needs to be taken into consideration in order to reach customer satisfaction (Bayraktaroglu & Atrek, 2010). It has been also highlighted that SERVQUAL can be applied in the majority of industries, including HE. Finally, it can be concluded that SERVQUAL, after the needed modification to its skeleton (Parasuraman *et al.*, 1988), is still considered to be the most common tool for measuring service quality, as well as updating and improving provided services.

2.8.5 Structure of SERVQUAL

The SERVQUAL model depends on employing around 22 questions to construct the SERVQUAL questionnaire, to assess the five required dimensions of service quality (Donnelly *et al.*, 1995; Wisniewski 2001; Oliveira, 2009). Each question statement is "used twice: once to measure expectations and once more to measure perceptions" (Wisniewski, 2001, p.382).

To obtain this current research's primary quantitative information, three questionnaires based on SERVQUAL are prepared. The first, targeting faculty staff in CCs in the KSA, the second, CCs' students and the third, CCs top managers, to measure their satisfaction regarding the educational services provided by their respective CCs. Those questionnaires are based on the SERVQUAL multiple item scale by Parasuraman *et al.*, (1988). In addition, the faculty questionnaire is also based upon Saudi's eleven major Standards for Accreditation and Quality Assurance (NCAAA, 2011), that will be clarified in detail shortly.

The three categories, e.g. students, faculty and top managers, represent all the internal stakeholders in any CC in KSA. The reason for choosing these categories and how the research dealt with them will be clarified in detail in the Methodology chapter.

Later on, the three questionnaires were applied –with some modifications to suit the HE context– in the context of CCs in the KSA.

2.8.6 Relationship between Quality Assurance Standards and Service Quality

The purpose of having Quality Standards in organizations is to have better service quality. Quality Standards have a role to play in enhancing organizations' service quality. In the following lines the relationship between the two will be investigated to find out whether Quality Standards have an influence over service quality or not.

Service Quality, via its dimensions, assists in measuring the quality performance of an organization. It measures gaps between expected service and perceived service from the point of view of the customer. As previously mentioned, the development of international standards for quality management systems (QMS) such as ISO 9001, is another incentive for a better quality of services or goods. Certification to ISO 9001 or other industry QM standards does make a difference in attracting customers and gaining their confidence in the products or services provided (Hoyle, 2001). According to Berry *et al.*, (1990), Quality Assurance Standards correlate with service quality – they enhance its application and can actually guarantee good service quality – and if Quality Assurance Standards are absent, the quality perception of customers will suffer (Berry *et al.*, 1990; Rowley, 1997; Bowen & Ford, 2002; Martirosyan & Kwoka, 2010; Psomas, *et al.*, 2012). Services are critically influenced by standards they are evaluated against. Quality Standards are important as a reference tool for customers to make a judgment of a received service (Piercy, 2013).

In contrast, improper quality standards specifications or delivery can cause quality gaps (Parasuraman *et al.*, 1985; Rowley, 1997). If there is a gap between the specifications of service quality (i.e. Quality Standards) and actual service, this gap will “affect service quality from

the consumer's standpoint" (Parasuraman *et al.*, 1985, p.45). Conversely, these standards must also influence the expectations of customers, either in the design or the delivery of services (Rowley, 1997).

Having appropriate Quality Assurance Standards alone will not achieve good service (Bowen & Ford, 2002; Martirosyan, & Kwoka, 2010; Psomas, *et al.*, 2012). Standards need to be applied, monitored and effectively managed in order to achieve good services. Psomas, *et al.*, (2012, p.159) in discussing the importance of effectively applying quality standards stated that "by achieving the ISO 9001 objectives (in other words by increasing ISO 9001 effectiveness), product/service quality and operational performance are directly improved".

It can be concluded, then, that Quality Standards appear to be a powerful tool in obtaining and maintaining service quality (Martirosyan, & Kwoka, 2010).

QAS of the Saudi NCAAA have the same role as any international standards. QAS were built to enhance the performance of quality in all HEI in KSA. On their official website, the NCAAA mission statement declares that they "encourage, support and evaluate the quality" of HEI (NCAAA, 2010, website).

Do QAS of the Saudi NCAAA have an influence on service quality dimensions?

Whilst there is an assumption that Quality Standards will lead to improved service quality performance, there is little research on whether or not these benefits are actually achieved. As one of the aims of this research, this connection will be examined through analysis of the data gathered, and clarified in the discussion chapter.

2.8.7 Chapter (2) Summary

This chapter has presented the literature review which investigated the meaning of quality, quality management in general, quality management in education and pressures facing education on

quality. It has then discussed the context of quality management in higher education and reviewed the many tools for quality management and measurement with more detail for TQM and Service Quality and its tool SERVQUAL.

It has addressed the first two research questions i.e. RQA1 and RQA2:

A. What are the requirements recommended by the existing literature for:

- 1) measuring service quality
- 2) enhancing QM and service quality

in the HEI and CC sectors? How can they be applied and what are their limitations?

It was found that the service quality via its tool SERVQUAL, was the best approach for measuring the performance of service organizations including HEI after the needed adoption and when used with other quantitative or qualitative tools. This chapter has then investigated the relationship of Quality Standards and service quality.

The following chapter will discuss the development of community colleges generally. It will discuss it internationally by focusing on CCs in the USA, shedding a light on the features, funding system and the research on CCs in USA. It will then investigate the scene of quality in higher education in KSA with more synthesis on the Quality Assurance Standards (QAS). Then it will present in detail the community colleges scene in KSA and how the CCs sample was chosen.

Chapter 3: Community colleges context and Higher Education Scene in KSA

This chapter discusses the development of community colleges generally. It discusses it internationally by focusing on CCs in the USA, since the USA is the originator of this kind of HEI. Which took place in 1901 (Brint & Karabel, 1989), from which CCs have spread around the world. This chapter is shedding a light on the features, funding system and the research on CCs in USA. It investigates the scene of quality in higher education in KSA with more synthesis on the Quality Assurance Standards (QAS), and presents in detail the community colleges scene in KSA and how the CCs sample was chosen.

3.1 Development of CCs

USA is the originator of this kind of HEI, in 1901 (Brint & Karabel, 1989), from which CCs have spread widely, now encompassing 1167 CCs, enrolling 12.4 millions of students (AACC, 2011a). These numbers have grown to be nearly 1200 CCs, enrolling about 13 millions of students (AACC, 2014).

In other nations, CCs are given different names. In The UK, they may be called Further Education Colleges or Higher Education Colleges, while in other English speaking nations they are called Tertiary Education Colleges.

3.1.1 CCs in the USA

In their book entitled "The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900-1985", Brint & Karabel (1989) provide a summary of the CC's history from its emergence in 1901 in the USA in Joliet, Illinois, under the name of "Public Junior College" or the "Two-Year Junior College," until the publication of their book in 1989. At the time of CCs emergence, there were strong doubts that this new kind of Tertiary Education could survive. "Over time, however, it became apparent that this peculiarly American invention was destined to do far more than survive; by mid-

century, it had become an integral feature of the American educational landscape” (Brint & Karabel, 1989).

By 1989, there were more than 900 public two-year colleges distributed all over the USA, serving more than 4 million American students (Brint & Karabel, 1989). According to the “Fast Facts” document of the American Association of Community Colleges, these numbers rose to reach 1167 CCs, enrolling 12.4 millions of students in 2011 – with an increase in enrolment rate of 15% from Fall 2008 to Fall 2010 (AACC, 2011a), proving that social demand for CCs is growing increasingly stronger (DeGenaro, 2001; Crookston & Hooks, 2012). As in above, CCs in USA are 1200, enrolling about 13 millions of students (AACC, 2014). Undoubtedly, CCs in USA represent the “largest and fastest-growing sector of U.S. higher education” enrolling (45%) of all USA undergraduates (AACC, 2014).

3.1.2 Features of CCs in USA

The role played by CCs in the USA was crucial in encouraging many general education leavers (e.g. students) to enroll into HEI. “For more than a decade, the majority of all degree-credit students entering the higher education system have done so in a two-year institution,” with 54% of all first-time college enrolled students, according to the U.S. Department of Education (Brint & Karabel, 1989). In 2014, the ‘First-Time Freshmen percentage’ in the two-year institutions was 45%. (AACC, 2014).

In fact, CCs enjoy a multitude of features that have attracted those millions of students all over the USA:

1. **Meeting local needs:** CCs have been set up to meet local needs, which differ from one place to another, according to social demand and requirements (Bers, 1980). CCs are playing an alternative role to universities for the first two years of a student’s post-secondary education (Mykerezi *et al.*, 2009, See also: Cohen & Brawer, 1987; Hilmer, 1998;



Levin, 2001; Ayers, 2011; Crookston & Hooks, 2012). CCs have a “significantly positive effect on the futures of those students who are of low wealth, low ability, or performed poorly in high school” (Hilmer, 1997, p.66).

2. **Open admission and unlimited access:** CCs provide access for all students completing general education at any age to enroll, without any upper age limits (Bailey *et al.*, 2005). They have also provided higher education open access (Cohen & Brawer, 1987; Levin, 2001; Grubb, 2002; Bailey *et al.*, 2005) especially opportunities for the American working class for all students meeting its minimum criteria (Bailey *et al.*, 2005). It is the only post-secondary education available for all in the USA (Bers, 1980; Cohen & Brawer, 1987; Windham, 2001; Brown, 2002; Mulkern-Kolosey, 2006; Mykerezi *et al.*, 2009; Marcotte, 2010; Ayers, 2011; Teranishi *et al.*, 2011).
3. **Convenient campus locations:** Since CCs are distributed all around the USA, their role is becoming more essential “especially in rural areas where career training is difficult to obtain” (Kasper, 2002, p.14). Extended demographically across the USA, CCs had “changed the face of American higher education” (Brint & Karabel, 1989, p. 6) See also: DeGenaro, 2001 and Teranishi *et al.*, 2011.
4. **Unlimited repetition:** in which students have unlimited opportunities to attend the programmes they wish to, without limits on repeating any courses they have failed (Bailey *et al.*, 2005).
5. **Comprehensiveness of courses offered:** CCs are providing their students with different kinds of programmes, such as: courses traditionally offered by college level institutions in order to obtain a bachelor



degree (Levin, 2001; Santibáñez *et al.*, 2007); courses of a vocational nature that lead to an associate degree, and latterly, career training through courses of a vocational nature (Windham, 2001; Brown, 2002; Kasper, 2002; Mulkern-Kolosey, 2006; Marcotte, 2010; Teranishi *et al.*, 2011).

6. **Flexibility of time frames:** Courses are offered “day and night on campus and off” (Cohen & Brawer, 1987, p.2), at the CC’s students’ convenience (Cohen & Brawer, 1987; Kasper, 2002; Bailey *et al.*, 2005; Marcotte, 2010; Teranishi *et al.*, 2011).
7. **Support of at-risk students:** CCs are providing support services and programmes to those students considered at risk or prevented from traditional post- secondary education due to social and academic barriers (Cohen & Brawer, 1987; Brown, 2002; Bailey *et al.*, 2005; Marcotte, 2010; Ayers, 2011; Teranishi *et al.*, 2011).
8. **Preparation for labour market:** CCs prepare students to directly enter the labour market, through two year Associate degrees, one year certificates, and other similar or shorter programmes (Levin, 2001; Windham, 2001; Grubb, 2002; Santibáñez *et al.*, 2007; Marcotte, 2010; Ayers, 2011; Teranishi *et al.*, 2011).
9. **Low tuition fees:** One of the most attractive features of the CCs for American students is their low tuition fees. According to the Fast Fact of the AACC (2011), annually, CCs charge only one third of the 4-year colleges' fees (i.e. CCs require: \$2,713 while 4-year colleges require \$7,605). These tuition fees represent just 15% of the American CCs’ revenue sources, 15% coming from other sources and the other 70% from State, Local and Federal funds (AACC,

2011a). One of the main reasons for CCs' having lower costs (and accordingly lower fees) than other HEI is their being teaching-oriented, rather than research-oriented (Cohen & Brawer, 1987; Hilmer, 1998; Mykerezzi *et al.*, 2009; Marcotte, 2010; Teranishi *et al.*, 2011).

10. Funding system of CCs in USA: CCs are, by definition, local government institutions, which provide education as a public service (Mykerezzi *et al.*, 2009; Teranishi *et al.*, 2011). They receive funds from local taxes, state and federal government (Bers, 1980).

The success of CCs in the USA has motivated many other countries all over the world to follow the American experience by establishing CCs or other similar colleges (Brint & Karabel, 1989). CCs in KSA are largely modeled on the US CCs. For this reason, and because there is little or no published research on CCs in KSA, the research issues on US CCs will now be reviewed.

3.1.3 Research On CCs in USA

It is evident that the CCs' have not attracted a great deal of attention in previous research (DeGenaro, 2001; Bailey *et al.*, 2005; Marcotte, 2010; Crookston & Hooks, 2012). American CCs, according to DeGenaro, (2001), have failed to fulfill their promise to transfer their students to universities or four year colleges (Hilmer, 1997; DeGenaro, 2001; Mulkern-Kolosey, 2006). On the other side, Cohen & Brawer (1987, p.3) stated that the role of CCs is not to transfer their students to universities, but rather to serve as a "gatekeeper" that "protects universities by sorting prospective students, sending on only those who have passed the various college level initiatory rites: the courses, tests and prescribed modes of conduct."

In fact, the role of CCs has developed from being a mere 'gatekeeper', as stated by Cohen & Brawer (1987), to that of an essential

element of the HE system, providing the first two years “for all students who meet minimum criteria” (Bailey *et al.*, 2005, p.2) to enable them to transfer to the four-years universities (Hilmer, 1997; DeGenaro, 2001; Mulkern-Kolosey, 2006). This has not been efficiently enacted, as highlighted by AACCC (2011a) that research has recently pointed out that those who commence their postsecondary education at a CC are less likely to obtain a baccalaureate than those who begin on a four-year campus.

Also, more than ever before, students’ retention and completion in CCs have recently attracted the attention of policy-makers, educators, accreditors and scholars. Consequently, they are paying more attention to the CCs’ educational outcomes (Bailey *et al.*, 2005). On the other side, dropout rates are higher in American CCs than other HEI (Grubb, 2002).

Notably, Bailey *et al.*, (2005) stated that many students in CCs never finish their education, or gain a degree, although they spend many years in the two-year colleges. They stated that 42% of students “who started college in a two-year public institution left college within six years after initial enrolment without a degree or certificate” and those who succeed in completing “tend to earn lower-level credentials” (Bailey *et al.*, 2005, p.2). See also: (Grubb, 2002; Marcotte, 2010). The question raised by Bailey *et al.*, (2005) for CCs is “how to do a better job with the types of students they already have”. As a result, CCs have been severely criticized for low quality (Grubb, 2002), since they are expected to produce graduates of high quality (Windham, 2001). In order to achieve that goal, CCs are required to apply the principles and techniques of quality for improving their teaching and learning processes (Windham, 2001). Noticeably, from the 1990’s on, CCs had been requested by HE legislatures to Enhance its production, apply better quality and consume less funds (Windham, 2001; See also: Michael *et al.*, 1997).

Moreover, in his article entitled “The effect of community college enrolment on bachelor’s degree completion according to a technical

report by the United States Department of Education in 2005”, Doyle (2009) mentioned that about 80% of the total American students enrolled into CCs for the first time are intending to obtain a bachelor’s degree, and that the majority of them do not continue to obtain a bachelor’s degree. Of all students attending CCs, just 21% of them do complete their bachelor’s degree within six years, therefore losing an additional two years (Doyle, 2009).

Hilmer (1998) highlighted a possible answer to the point raised by Doyle (2009). He stated that since high schools do not provide clear indications of students’ abilities to complete their higher education or directly join the labour market, taking courses in a university or CC would provide significant indications regarding students’ potential. This would enable them predict their likelihood of success more accurately (Hilmer, 1998). See also: (Mulkern-Kolosey, 2006).

Notably, one of the major factors that might explain CCs’ students’ low achievement is the lower tuition fees, (Hilmer, 1998) compared to other HEI. CCs’ open access system means that they enroll the majority of students without testing their abilities of success in HE, which could explain the large percentage of students who don’t complete their bachelor’s degree (Hilmer, 1998). Mykerezi *et al.*, (2009) believe that the actual impact of CCs or two-year colleges on postsecondary education is positive. To some extent, they share the same perspective adopted by Cohen & Brawer (1987) regarding the ‘gatekeeper’ role they believe CCs are playing. However, bearing in mind what the United States Department of Education (see: Doyle, 2009) mentioned about 80% of students enrolled in US CCs do not complete the intended bachelor degree, there is a real problem of CCs’ performance adversely affecting students’ performance and achievement. In addition to the repeated criticism directed at CCs for their poor quality (Grubb, 2002), and the expectations to produce graduates of high quality (Windham, 2001), the quality in CCs needs to be better managed and enhanced.

3.2 Higher Education & Community Colleges Scenes in Saudi Arabia

3.2.1 The Higher Education Scene in Saudi Arabia

Currently, a multitude of challenges face HE, such as globalization, national and international competitiveness, the information and communication revolution, finance and growing social demand for higher education (Levin, 2001; Tambi *et al.*, 2008; Marcotte, 2010; Teranishi *et al.*, 2011). In this context, Bernheim & Chaui (2003) emphasized the significant role assigned to HE for facing such challenges and promoting the sustainable development of both individuals and societies. Indeed, modern

"society has become increasingly knowledge-based so that higher learning and research now act as essential components of cultural, socio-economic and environmentally sustainable development of individuals, communities and nations." Bernheim & Chaui (2003, p.9).

Notably, the Saudi leadership considered the importance of HE as one of the most essential ways to prepare qualified Saudis in order to build the nation. It believes that HE is *"a pillar of the successful development in any country"* (Ministry of Higher Education, 2013, website). As a result, over the years, the Saudi leadership has paid much attention to HE, starting with the establishment of several colleges in major cities, in 1949; however, the real inception of higher education institutions in Saudi Arabia came in 1957, when King Saud Bin Abdul Aziz founded King Saud University in Riyadh, the Capital city of KSA, as the first ever university in the Kingdom. A gradual development started after that reaching (8) governmental universities in 2000 and (11) in 2005 (MOHE, 2010).

The revolution in higher education in Saudi Arabia has started in the last few years. This is evidenced through the increasing number of Saudi universities that have grown, from eight to reach an



unprecedented number of 25 universities in 2009, covering all Saudi provinces.(MOHE, 2014). Also, the number of private universities and colleges witnessed a similar increase to reach seven private universities and many more private colleges (MOHE, 2009a; MOHE, 2014). The total capacity of all of higher education institutions in Saudi Arabia rose to 186,000 places covering 85% of eligible male students and 70% of eligible female students (Alharbi, 2007).

In 2009 the numbers of students jumped to (728,867) students (315,974) (43.4%) are male and (412,893) (56.6%) are females. It is interesting here to see that the higher percentage is for females which is not the case in most countries around the world (MOHE, 2010). The free transportation for female students (MOHE, 2013) can be added here also as an advantage for females against males. Can this be considered as discrimination against men?

The number of students has grown again to be (880,003) students in all the 25 governmental universities in (2012) (MOHE, 2012).

In addition, the Saudi leadership decided to benefit from the rise in the national income, owing to the high rise in oil prices throughout the last few years, by investing in a plethora of fields, including higher education. The government started sending thousands of students on external scholarships to complete their higher and post-graduate studies abroad.

3.2.2 Quality Status of HEI in Saudi Arabia

A quality movement has recently started in Saudi HEI, with initial efforts made by some HEI at an individual level such as King Saud University (KSU) and King Fahd University for Petroleum and Minerals (KFUPM) as well as other individual institutions around the country (Ministry of Economy and Planning, 2010). The initial emergence of systematic endeavor towards quality was achieved by launching the two main categories of Quality Assurance Standards for HEI in KSA in 2009, by the Ministry of Higher Education (MOHE), through the newly

established National Commission for Academic Accreditation & Assessment (NCAAA). These categories include:

- 1- Standards for Institutional Accreditation in Higher Education, and
- 2- Standards for Quality Assurance and Accreditation of Higher Education Programmes.

Such Quality Assurance Standards (QAS) for HEI have been newly launched in KSA and will be gradually applied by all Saudi HEI during the coming years, since there are great differences in QAS application and experiences at various HEI in KSA (NCAAA, 2009a). Notably, these standards will be applied to all governmental and non-governmental universities and colleges, except for military education institutions which have different procedures (NCAAA, 2009a). The effectiveness of these is yet to be established.

3.2.3 The Quality Assurance Standards (QAS) of the Saudi National Commission for Academic Accreditation & Assessment (NCAAA)

In order to get some background of the Quality Assurance Standards of Higher Education Institutions in KSA, the researcher visited the NCAAA and met its General Secretary, Professor Abdullah Almusallam and one of its consultants Dr. Salih Alghamdi. They provided a lot of information regarding the processes they followed in order to build the NCAAA standards. They also gave the researcher a nine pages document describing all the steps they followed and naming all the international experts they consulted. All of these details will be shown in this paragraph.

The NCAAA was established in 2003 in order to build accreditation standards for all post-secondary education institutions in KSA. The NCAAA had prepared three kinds of standards; Institutional Standards, Educational Programmes Standards and Vocational Standards. What this research is concerned with is the first one.



3.2.4 The preparation processes of QAS

In 2004 Dr. Ian Allen the former Manger of Higher Education in Victoria State, Australia, was appointed a consultant for the NCAAA and joined the NCAAA's national team. Allen had a lot of experiences in Asia, Latin America and Middle East in quality for higher education institutions and played an important role in establishing the Australian Universities Quality Agency (AUQA). The NCAAA team visited several governmental and private HEI for gathering information to view the institutional aspects of HEI in KSA. A draft of the higher education standards (it was called at that time benchmarks), national framework of qualifications and a guide of internal quality assurance processes were prepared in accordance with standards of best international practices and the national prospective and its needs.

A team of international experts in quality assurance had visited the NCAAA in 2005 to revise these documents, suggest changes and provide recommendations. That team members were: Dr. Marjorie Peace-Lenn the Executive Manager of Quality Assurance for International Education in the USA, Dr. Richard Lewis Chief of International Network for Quality Assurance Agencies in Higher Education (INQAAHE) and Dr. Michael Smith the Manger of the Commission of Academic Accreditation in the United Arab Emirates (UAE) and the previous Manager of Higher Education Commission in South Carolina, USA. After that, all of those documents were presented and discussed in a national seminar in Riyadh in 2005. A meeting with quality representatives of the governmental universities to get their comments and suggestions had took place. The documents were revised again and sent to all the governmental universities in KSA in order to get their feedback. Then all of those documents were sent to a number of international experts in quality assurance in several countries. Those experts were: Dr. Arthur Brown the Former Assistant Manager of the Quality Assurance Agency in the UK, Dr. Robert Schofield Expert

Reviewer in the Quality Assurance Agency in the UK, Dr. Colleen Liston the Manager of Quality and International Planning in Curtin University and an international expert in accreditation, Dr. David Woodhouse the Executive Manager of the AUQA, Dr. Donald Baker the Executive Manager of the Council of Quality Evaluation of the Post-Secondary Education in Canada, Dr. Steve Crow the Executive Manager and the Chief of Higher Learning Commission of the North Central Association of Colleges and Schools in the USA and others.

The next step was a two days meeting with senior faculty members in quality assurance in the governmental universities for approving those standards, which had been approved with minor changes. Those standards were applied in the period 2006-2009 in several universities from both the governmental and the private sectors for testing and developing the standards.

The final step was in April 2009 when a team of experts in quality assurance was hosted in the NCAAA in order to make sure that the standards are in line with the international best practices in quality assurance. Those experts were: Dr. Peter Williams the Chief Executive of the Quality Assurance Agency in the UK, Dr. Jean Morse the Executive Manager of Middle States Commission on Higher Education (MSCHE), Professor Kwong Lee Dow the former Chief of Melbourne University, Australia, Dr. George Peterson the former Chief and the Administration Manager of the American Commission for Engineering and Technological Programmes, USA and Dr. Badralldin Abu Alola the Manager of the Commission of Academic Accreditation (CAA) in the UAE. As a result the documents were approved and distributed for all post-secondary institutions in KSA.

The processes detailed above show the extent to which the NCAAA was very precise and accurate in getting standards for quality assurance that is applicable in the Saudi context on the one hand and in

line with international best practices in higher education standards on the other hand.

Saudi NCAAA has formulated such standards based on various acknowledged international standards, with some minor adaptations and modifications to suit the Saudi context and prevailing circumstances (MOHE, 2009b). They include eleven major QAS as follows:

1. Mission, Goals and Objectives;
2. Governance and Administration;
I.e. Effective leadership, policy development and processes for accountability.. etc (NCAAA, 2009a).
3. Management of Quality Assurance and Improvement;
4. Learning and Teaching;
Specified students learning outcomes, teaching staff must be appropriately qualified and experienced for their particular teaching responsibilities (NCAAA, 2009a).
5. Student Administration and Support Services;
6. Learning Resources;
Such as libraries, access to electronic and other references, IT facilities..etc (NCAAA, 2009a).
7. Facilities and Equipment (Housing);
Adequate provision for classrooms and laboratories, food services, extracurricular activities, and where relevant, student accommodation (NCAAA, 2009a).
8. Financial Planning and Management;
9. Employment Processes;
Attracting and retaining Qualified teaching staff (faculty), evaluating teaching and other staff (NCAAA, 2009a).
10. Research; and
11. Institutional Relationships with Community (NCAAA, 2009a).

These standards have been clarified in detail and sent to all HEI in KSA in order to show what is generally accepted as good practice in

higher education throughout the world adapted to the particular circumstances of higher education in the Kingdom of Saudi Arabia (NACCC, 2009a).

However, most HEI in KSA have not met yet the required quality standards, neither in their institutions nor in their higher education programmes. As a result, more effort should be exerted to enhance the quality of HEI in KSA (Ministry of Economy and Planning, 2010).

3.2.5 The Community Colleges Scene in Saudi Arabia

In Saudi Arabia, there are 47 Community Colleges, spread all over the country (MOEH, 2009a). They are all affiliated to the governmental universities. For a detailed map of CCs in KSA, see Appendix (4). All CCs are assigned similar roles and functions in their attempts to meet the multiple learning and training needs of the community they serve (AACC, 2008). They concentrate their academic efforts and vocational training on the applied subjects and specializations needed by the labor market (MOHE 2009b). They also offer a variety of academic and applied professional programmes aiming to prepare their students academically to complete their higher education or to professionally join the labor market (Alhabib, 2004).

Overall, recent official statistics show that there is a total number of 47 CCs distributed throughout KSA's 13 main administrative divisions, the "Regions" (MOEH, 2009a). In such a far-flung country covering 2,150,000 square kilometers as Saudi Arabia (MOFA, 2012), it is far beyond the researcher's time and ability to cover all the CCs population. As a result, collecting rich detailed quantitative and qualitative data from ten CCs out of 47 seems a plausible alternative option, for further generalization to other CCs. Notably, such generalization is acceptable only as long as other examined institutions are in a similar relevant context at the same time; the selected sample actually represents its entire research population (Myers, 2000). More details about the number of CCs chosen sample will be clarified later on.



After preliminary research on the distribution of CCs in KSA conducted by the researcher, it was identified that they are spread in most parts of the country. They can be found in all major cities and all of the country's regions, as shown in the map of CCs' distribution in KSA in Figure 4. Basically, CCs in KSA geographically represent the higher education institutions in KSA. Some of them have recently changed into professional colleges awarding bachelor degrees for their students. Thorough empirical data and information will be gathered and deeper analysis of the situation of CCs in KSA will be conducted in this research in order to know the situation of quality management and what is needed to be taken into consideration for applying or enhancing quality management in CCs in KSA.

The following Figure 4 depicts a map for those different Saudi Regions as well as their CCs location and gender distribution:

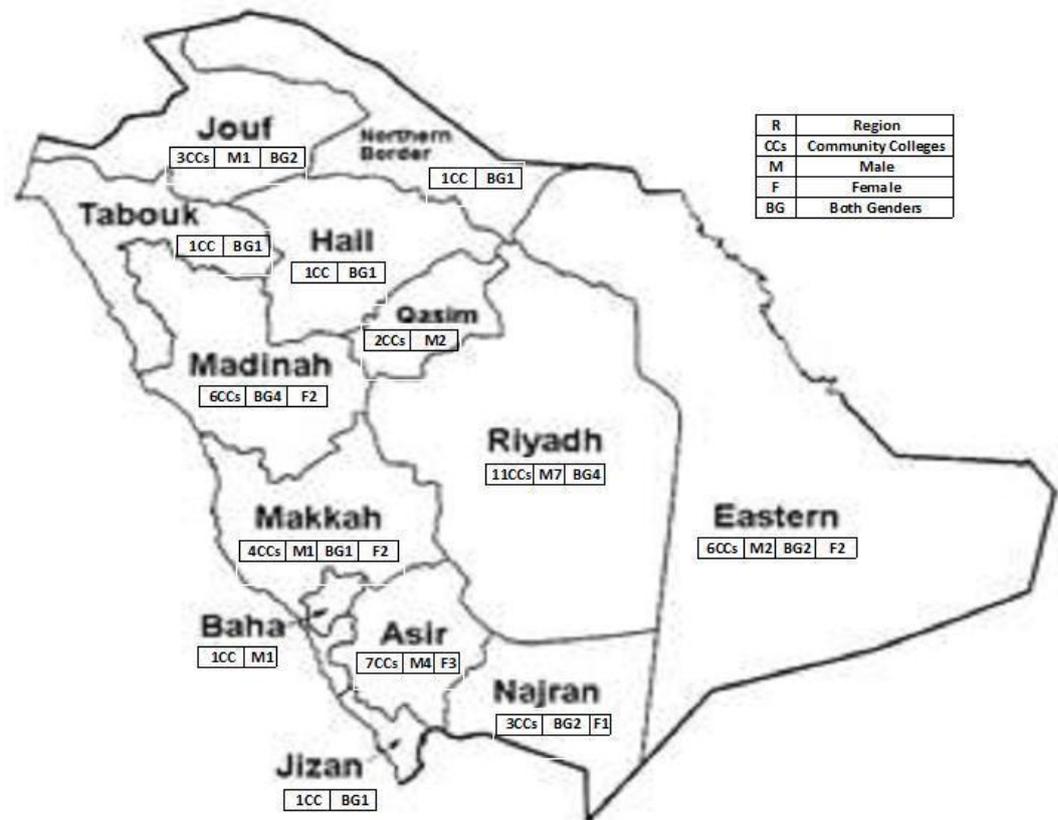


Figure 4: Saudi Regions Linked to their CCs Location & Gender Distribution.



The response rates, for study questionnaires or interviews, were due to paying personal visits to most of the selected ten CCs. The researcher was logistically supported by an official letter issued by his university (Shaqra University) one of the governmental universities in the KSA.

Before the selection take place the size of the Saudi CCs in light of their students' numbers according to the (2010-2011) academic year statistics were studied, which is represented in the in Figure (5).

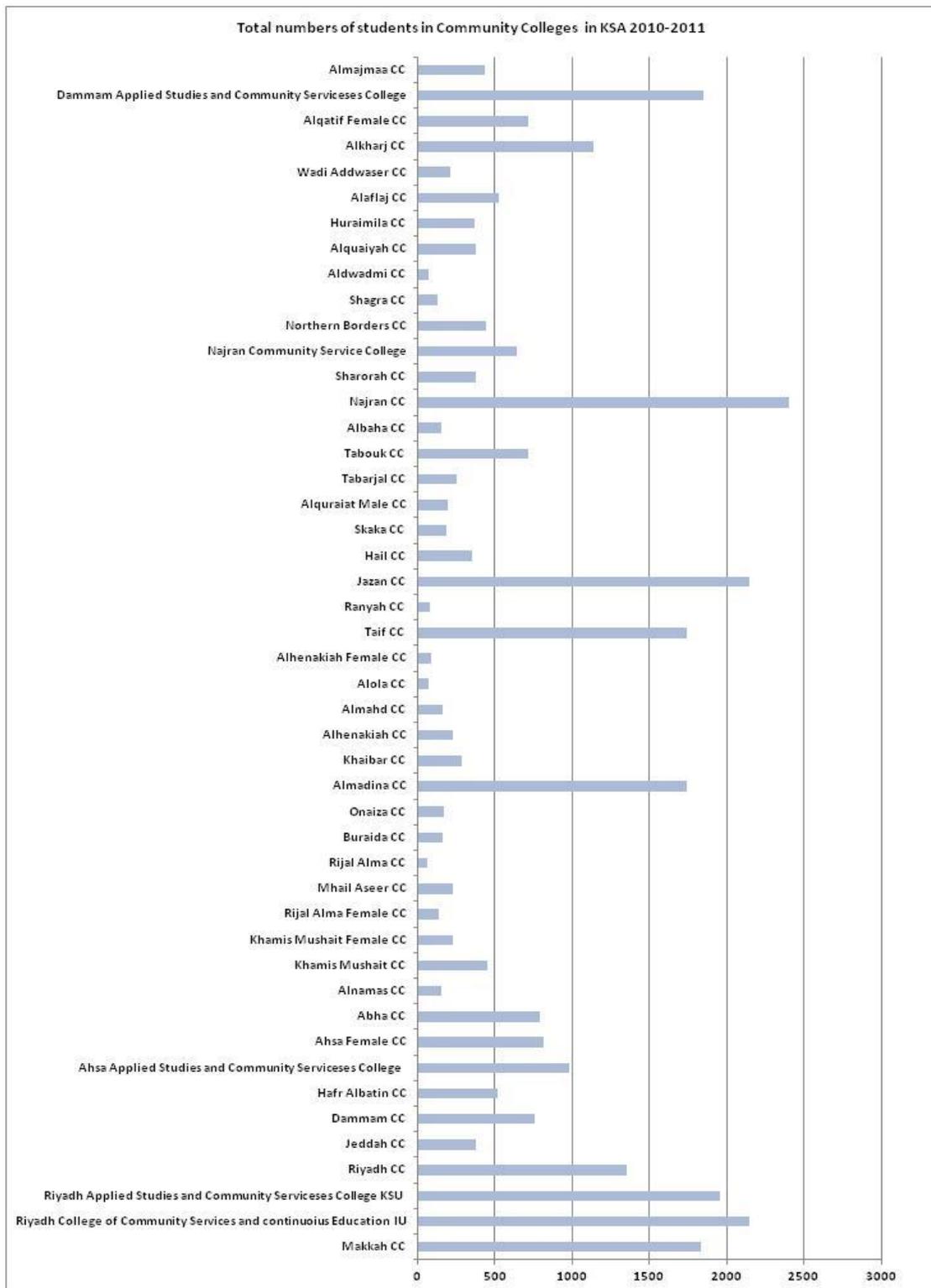


Figure 5: Size of Saudi CCs in Light of their Students' Numbers. (MOHE, 2011).

Furthermore, the following Table (3) shows the names of all Saudi CCs, their location, students' numbers as well as gender range at each.



#	Region	#	Name of Institution	No. of Students	Gender*
1	Riyadh	1	RCCSCE**	2146	BG
		2	RASCCKSU***	1954	BG
		3	Riyadh CC	1355	M
		4	Shagra CC	127	M
		5	Aldwadmi CC	71	M
		6	Alquaiyah CC	380	BG
		7	Huraimila CC	369	BG
		8	Alafraj CC	526	M
		9	Wadi Addwaser CC	208	M
		10	Alkharj CC	1137	M
		11	Almajma CC	437	M
2	Makkah	12	Makkah CC	1833	F
		13	Jeddah CC	376	M
		14	Taif CC	1739	BG
		15	Ranyah CC	80	F
3	Al-Madinah	16	Madinah CC	1739	BG
		17	Khaibar CC	284	BG
		18	Alhenakiah CC	226	F
		19	Almahd CC	160	BG
		20	Alola CC	72	BG
		21	Alhenakiah Female CC	91	F
4	AL-Qasim	22	Buraida CC	160	M
		23	Onaiza CC	170	M
5	Eastern Region	24	Dammam CC	754	M
		25	Hafr Albatin CC	520	M
		26	AASCSC****	980	BG
		27	Ahsa Female CC	818	F
		28	Alqatif Female CC	714	F
		29	DASCSC*****	1845	BG
6	Asir	30	Abha CC	786	F
		31	Alnamas CC	154	M
		32	Khamis Mushait CC	452	M
		33	Khamis Mushait Female CC	228	F
		34	Rijal Alma Female CC	139	F
		35	Mhail Aseer CC	230	M
		36	Rijal Alma CC	61	M



#	Region	#	Name of Institution	No. of Students	Gender*
7	Tabouk	37	Tabouk CC	713	BG
8	Ha'il	38	Ha'il CC	348	BG
9	Northern Borders	39	Northern Borders CC	446	BG
10	Jizan	40	Jazan CC	2150	BG
11	Najran	41	Najran CC	2403	BG
		42	Sharorah CC	375	BG
		43	Najran Community Service College	642	F
12	Al-Baha	44	Baha CC	153	M
13	Al-Jouf	45	Skaka CC	190	BG
		46	Alquraiat Male CC	195	M
		47	Tabarjal CC	254	BG

*BG=Both Genders. M=Males. F=Females.

**RCCSCEIU=Riyadh College of Community Services and continuous Education Imam University.

***RASCSCSU=Riyadh Applied Studies and Community Services College King Saud University.

****AASCSC=Ahsa Applied Studies and Community Services College.

*****DASCSC=Dammam Applied Studies and Community Services College.

Table 3: Name of All Saudi CCs, their Location, Students No. & Gender (MOHE, 2012).

3.2.6 Chapter (3) Summary

This chapter has discussed the development of community colleges generally. It has discussed it internationally by focusing on CCs in the USA, shed a light on the features and the research on CCs in USA. It has then investigate the scene of quality in higher education in KSA with more synthesis on the Quality Assurance Standards (QAS). Then it presented in detail the community colleges scene in KSA.

The next chapter is about methodology followed in obtaining data and information. It will discuss the basic features of the research methods used in this research and the rationale for using them. It will review both the quantitative and qualitative methods and their instruments, make a comparison between their strengths and weaknesses and how the two can be used together. Then it will determine the instruments used in this research and how can they be credible, reliable and avoid bias and other research problems affecting credibility & validity of research. Finally, it will review the data collection



processes starting by the pilot study and finishing with collecting data and information from questionnaires and interviews from the sample CCs.

Chapter 4: Research Methodology

This section will clarify the basic features of the research methods used in this research and the rationale for using them. It will then explain how the CCs were selected for participation in the study.

Research is a pivotal mechanism for obtaining knowledge, finding solutions to problems and investigating scientific or non-scientific phenomena, such as those we continuously encounter in our everyday life (Rajasekar *et al.*, 2008; Myers, 2009). Research methods, whether qualitative or quantitative, constitute indispensable core tools for researchers to construct and share knowledge, and find plausible solutions. Appropriate methods are usually chosen according to the research's inherent nature (Hathaway, 1995); however, each method has its own features, strengths and weaknesses which should be taken into account by researchers when embarking on the selection, design and implementation of research.

This section will start with a comparison between quantitative and qualitative research methods, as it is impossible to speak about research methods used without considering their similarities and differences (Van Maanen, 1998). Each research method has its own distinct assumptions or features; resulting in different outcomes. Indeed, these methods "carry with them different ways of asking questions and often different commitments to educational and social ideologies" (Hathaway, 1995, p.557).

4.1 Quantitative and Qualitative Research

Quantitative methods aim to collect and analyze numerical data and are associated with a positivist epistemology. As highlighted by Marshall (1998, website), a "quantitative methodology, generally associated with positivist epistemology, is usually regarded as referring to the collection and analysis of numerical data". They are closely often used to justify or verify by the test the empirical basis and generality of assumptions (Van Maanen, 1998).

On the other hand, qualitative methods are "generally associated with interpretative epistemology" (Marshall 1998, website), and aim to collect data and analyze it, but "rely on understanding, with an emphasis on meanings" (Marshall, 1998, website). See also: (Myers, 2009). They are usually described as investigative, targeting to discover, describe and build theory (Van Maanen, 1998).

In essence, ontology indicates investigating the existence and the nature of something while epistemology comes later, to illustrate what and how it exists. Therefore, epistemology is built upon ontology. It can be concluded that if a study's aim is to know the nature and existence of something, it's ontological. Yet, if the research aim is to know what or why, it's epistemological. Deciding which method to be used, researchers should think about the assumptions underlying each of the two approaches (Hathaway, 1995).

The discussion of assumptions is conducted here because many researchers choose quantitative or qualitative methods "without giving much thought to the assumptions underlying research methods" (Hathaway, 1995, p.536). Debate on social science research methods, either quantitative or qualitative, is a result of the permanent interaction between the two assumptions of ontology and epistemology and their relation to human nature (Morgan & Smircich, 1980). Notably, this debate has always generated tension between these two distincts, and seemingly contradictory perspectives.

Indeed, "there are few subjects that generate as much passion among scientists as arguments over method" (Hathaway, 1995, p.535); however, this debate is, in fact, basically unproductive (Miles & Huberman, 1994). As a result, detailed discussion of the relative advantages of quantitative versus qualitative methods is outside the current research scope; however, to conclude this point, it is worth mentioning the in-depth observation stated by (Marshall, 1998) that "although there are various styles of social-scientific research there is

only one logic of scientific inference. The logic of good quantitative and good qualitative research designs does not therefore differ" (Marshall, 1998, website). It can be concluded that both methods are able to provide valid and reliable results once they are applied well, from a precise, scientific methodological perspective. Also, both methods are complementary in nature and neither can stand alone by itself (Van Maanen, 1998).

4.2 Quantitative Research: Strengths & Weaknesses

Quantitative research is the method to be used when there is a need for numerical data collection (Hunter & Leahey, 2008). Quantitative tools are designed for gathering data, for further analysis and study. They enjoy wide-scale dominance in the field of organizational research (Johnson *et al.*, 2006; Smith *et al.*, 2008).

Quantitative research is basically guided by the data output. The researcher's assigned role here is to verify his research hypotheses empirically according to the collected data. "Being deductive and particularistic in essence, quantitative research is based upon formulating research hypotheses and verifying them empirically based on a specific set of data" (Matveev, 2002, website). According to Van Maanen (1998) quantitative data can take aspects like an answer of a questionnaire item, formal behaviour observation, however, this data at the end should be frequently counted and statistically analyzed. The outputs of that work are numbers, tables and figures that summarise selected part of the data.

One of the disadvantages of quantitative research is that data collection and analysis can be labor-intensive and time-consuming (Weinreich, 1996). Therefore, in many cases, quantitative research needs more staff than one researcher, because of its numerous associated tasks such as coding, programming, cleaning, and analysis. As a consequence, it is common to divide the quantitative research multiple tasks among several scholars (Hunter & Leahey, 2008). The main reason for such an

option can be the increasing complexity and inter-connectedness between the research areas and cases that may require more extensive knowledge and equipment; thus the expertise of several scholars may be needed (Hunter & Leahey, 2008).

Although quantitative research can achieve its desired aims by gathering necessary data and facilitating its analysis, it sometimes does not provide a detailed description (Neill, 2007; Zachariadis *et al.*, 2013) since it concentrates on verifying certain hypotheses by examining data selected from the whole context in a reductionist manner. It also fails to provide researchers with the specific context of the situation under investigation (Matveev, 2002). This point has also been emphasized by Weinreich (1996) who stated that "the greatest weakness of the quantitative approach is that it decontextualizes human behavior in a way that removes the event from its real world setting and ignores the effects of variables that have not been included in the model" (Weinreich, 1996, p.53).

4.3 Qualitative Research: Strengths & Weaknesses

Qualitative research uses multiple methods in investigating cases and organizations which can help in understanding the phenomenon in its social background (Gephart, 2004). This provides a detailed and complete description of the whole context (Neill, 2007; Zachariadis *et al.*, 2013), deep understanding of the phenomena under study (Marshall, 1998) and good interpretation of the phenomena in its context (Van Maanen, 1998). By directly interacting with the participant sample of the study, qualitative research can directly explore its subjects' experiences, resulting in rich and detailed data (Matveev, 2002).

Qualitative research is always accompanied by epistemological interpretation (Marshall, 1998), basically targeting data collection and analysis but relying "on understanding, with an emphasis on meanings" (Marshall, 1998, website). It "embraces an array of non-statistical research practices" (Johnson *et al.*, 2006, p.131). Qualitative research

mainly attempts to interpret the research phenomenon in its social context, taking into account its historical background and its detailed situation (Van Maanen, 1998). As a result; it can provide a detailed and complete description of the whole context (Neill, 2007; Myers, 2009).

It also "attempts to accurately describe, decode, and interpret the meanings of phenomena occurring in their normal social contexts" (Matveev, 2002, website). It is, in fact, an "interpretative paradigm based on the notion that social reality is created and sustained via the subjective experience of people involved in communication" (Matveev, 2002, website). In sharp contrast to quantitative methods, qualitative ones are rarely guided by pre-specified hypotheses (Matveev, 2002). Therefore, researchers in qualitative research only know in general terms, what to look for in their research (Neill, 2007).

One of the significant features of qualitative research is that since it is descriptive in nature, required evidence can be taken from words in interviews, pictures or objects (Neill, 2007).

Another strength of using qualitative research is that the collected data can be rich and detailed, highlighting the participants' real viewpoints (Weinreich, 1996). The impression of simple data and information that can appear in quantitative research is rarely found because qualitative methods focus on "investigating the complexity, authenticity, contextualization, shared subjectivity of the researcher and the researched issue" (Matveev, 2002, website). Therefore, using qualitative methods for investigating various cases or phenomena gives opportunities to view them from different angles, whilst at the same time they present a clear, panoramic overview. They also pay attention to relations between employees, their daily work experience and issues of gender and identity at work in diverse contexts (Johnson *et al.*, 2006).

Furthermore, qualitative research brings direct interaction with the study population; thus more accurate and in-depth understanding (Weinreich, 1996), can be obtained only via qualitative research tools



such as interview, observation, etc. Besides, using only qualitative research, the study is not only partial, as often is the case for quantitative research.

Qualitative research employs various methods and techniques largely suited to conducting research on organizations since many of qualitative research concentrated on the managerial work nature (Johnson *et al.*, 2006) and also due to its core features.

However, like quantitative, qualitative research has its own shortcomings and weaknesses. First, it's time-consuming and "mentally challenging" (Marshall *et al.*, 2013, p.12). Although it provides detailed rich data and a panoramic view of the case under study, it may consume the researcher's time and efforts.

The difficulty of generalization is another weakness of qualitative research (Weinreich, 1996; Matveev 2002; Länsisalmi *et al.*, 2004; Neill, 2007; Venkatesh *et al.*, 2013). Myers (2000) clarified that such a problem stems from the small-sized samples employed by qualitative research, which can make it incapable to generalize its conclusions. Since the small samples usually used in qualitative research do not efficiently represent the whole population of the focus or case, qualitative research is cannot provide the type of reliable and objective knowledge required for prediction (Van Maanen, 1998). As a rule, being able to predict future changes and trends from a large sample or data set makes results more generalizable.

Moreover, in qualitative research, the person who conducts the research impacts the study, since it is essentially an interpretative and subjective method that gives the researcher more influence on his/her research results, taking into account the fact that the researcher is "an important component for the successful implementation of the method (Carrero *et al.*, 2000 (in Spanish); cited by Länsisalmi *et al.*, 2004). Accordingly, having a less experienced researcher may lead, more than



in quantitative research, to weak interpretation and culminate in false or refutable results.

Bias and subjectivity are unavoidable side-effects of qualitative research, since the qualitative researcher is the key instrument for data collection, analysis and interpretation (Neill, 2007). That is why Van Maanen (1998) described qualitative research as a personal, not systematic approach in nature. Bias can happen even in quantitative research, but in qualitative research it is more likely. It is difficult to avoid bias when the researcher is subjective and immersed in examining his research area (Matveev, 2002). Another weakness related to bias is what Brown (2010, p.230) called the "absence of clear conventions," which can direct the researcher to work without a specific plan and systematic mechanism. Finally, it could be concluded that accurately applying scientific theories and delving deeply into analyzing the core content of available data could prevent broader wide-scale audience acceptance of qualitative research (Stutts & Barker, 1999).

4.4 Using Mixed Methods

Are Quantitative and Qualitative Methods both needed and acceptable in one research study? Although each research method effectively works by itself in the research field, they each receive criticism from the other party. So, to what extent is having both methods in one research acceptable?

Matveev (2002) supported this notion, arguing that both methods can be compatible. The quantitative methods can supply a high level of accuracy and the power of statistics, whereas the qualitative ones can provide more in-depth information about the nature of communication in a case or a phenomenon under investigation. In a similar vein, Weinreich (1996) confirmed that combining both methods guides gains the best of the two sides.

Aldamigh, (1996) also supported this perspective, asserting that combining different methods can reduce the likelihood of error or bias,

helping to explain the results from more than one perspective, increasing the credibility of the results obtained and helping to avoid the defects and limitations suffered by each single approach (see also: Dudwick *et al.*, 2006).

Applying the two methods together will ensure high reliability levels of data collection via quantitative methods, and will allow more in-depth information about the examined case (Matveev, 2002) as well as a comprehensive description (Neill, 2007) through qualitative methods. In other words, getting the best of the two methods to understand the phenomenon under study (Venkatesh *et al.*, 2013).

On the other side, Weinreich (1996) stated that combining the two methods together still does not gain wide acceptance; however, this has nothing to do with the effectiveness of combining both methods, but rather, it might give an indication of the insufficient spread of this combination in the research community. Yet, it can be concluded that since this trend of mixing two research methods has started recently, it is -according to Greene (2008, p.18)- too early to make a judgment about mixing the two methods in one research. "We are still very much in the infant stages of understanding how to judge the quality of mixed methods practice".

Qualitative and quantitative data combination is often called triangulation, although this term is also used, within the qualitative approach, for combination of qualitative data from different sources or perspectives. One supporter of triangulation is Wolf (2010, p.160) who, after examining seven recent examples of triangulative research from the comparative public policy literature in order to assess their particular mixed methods approaches, stated "it has certainly broadened the scope of insights, and brought the discipline forward".

Hathaway (1995, p.539) divided researcher opinion on triangulation into three perspectives: "the purists, the situationalists, and the pragmatists". First, the purists would not even consider this



combination. They believe that the "two approaches are so divergent in terms of assumptions about the world, truth, and reality that one should not even consider combining quantitative and qualitative research". Second, the situationalist perspective uses certain methods for specific situations, according to their appropriateness. Finally, the pragmatists believe in using both methods at the same time. "The pragmatist views the two approaches capable of simultaneously bringing to bear both of their strengths to answer a research question". This third point-of-view was the approach adopted by the researcher for this research.

4.5 Adopted Methodology

This research applied a mixed-methods approach, i.e. both quantitative and qualitative.

4.5.1 Quantitative instrument

Using a quantitative approach, the researcher gathered the required data using survey questionnaires, especially designed for collecting data and information about CCs in KSA. Since HEI are considered service providers because they provide an educational service to their customers, e.g. parents, students, employers, industry and the entire society (Firdaus, 2006; Sahney *et al.*, 2008; Ali & Shastri, 2010), the researcher built his own questionnaires upon one of the best scholarly-evidenced measurement tools for service quality: SERVQUAL, which has been previously discussed. In addition, there were another 30 questions for faculty members, to measure the situation of NCAAA's Quality Assurance Standards application in CCs in KSA.

Whilst other studies have targeted students and staff (faculty members) (Zafiropoulos & Vrana, 2008) to measure the perspective of both the service provider and customer (Czepiel, 1990); unusually SERVQUAL was applied on three categories of this research, Students, Faculty and Top Managers. As they represent the main categories of internal stakeholders in HEI. Students are customers and Faculty and Top Managers are the service providers. Faculty deliver the service and

Top Managers lead the whole process and represent the decision making part (Kennie, & Woodfield, 2008).

The questionnaires targeted Students, Faculty members and Top Managers at all 47 Saudi CCs (target population). It was applied to 10 CCs in KSA. The reason for targeting only 10 CCs and the selection criteria used will be clarified later.

Each questionnaire was first formulated in English for the advice, revision and arbitration by the researcher's supervisors at Nottingham University Business School. Then, it was translated into Arabic (the mother tongue of target group). During this phase, two additional professional academic staff from Saudi universities with experience in the field of quality, and good knowledge of both Arabic and English languages, were consulted to make sure that the questionnaire translation was accurate and conveyed the same meaning as its English version.

After receiving questionnaires and conducting interviews, which all were in Arabic, the researcher started dealing with them in order to have them all translated into English. The questionnaires data were entered in the SPSS data base using the number chosen of each answer of each respondent. The questions were prepared previously in English and entered in the SPSS data base. There were 9 interviews from Top managers and 5 from faculty. They were either written in notes by the researcher or recorded (by a mobile app for recording phone calls after a permission from the interviewee) or both. The researcher wrote each answer after hearing it in the recorded interview or reading in the written transcript, and after comparing the two if they both exist. As some interviewees did not agree to have their interviews recorded. In the case of Turaif CC the Dean insisted to have a longer procedure. In order to have him participating, the interview questions had been sent to him via email. He answered all the questions and emailed them back to the researcher. After reading his answers there were additional

questions raised from the answers. So the researcher emailed the new questions to the Dean again. He answered them and again emailed them back to the researcher.

All of the interview responses were in Arabic. The researcher then translated them into English and had them revised by an English proofreader.

In the KSA, letters from the researcher's university (e.g. Shaqra University where the researcher work) were obtained in order to support the researcher and provide access to all the governmental HEI in KSA; however, the questionnaire forms' distribution, collection and procedural tasks was the responsibility of the researcher alone.

The data collected via questionnaires was expected to show the status-quo of the SERVQUAL five dimensions for the three respondent categories in CCs in KSA, while the faculty members questionnaire would show additionally the current situation as regards the application of NCAAA's QAS.

The data obtained by the quantitative instruments was directly related to the research question two, sub-question one. e.g. RQB1: *What is the current situation of QM and service quality in CCs within the KSA?*

4.5.2 Qualitative instrument

While gathering the quantitative data, the researcher applied a qualitative approach via direct and phone interviews with officials from Saudi CCs selected by CCs themselves. Again, the selection of those CCs will be clarified below.

As previously mentioned, qualitative research is a direct interaction with the research population (Marshall, 1996); thus making it capable of formulating more accurate and in-depth understanding of the relevant context (Weinreich, 1996). As a result, employing interviews as a qualitative research instrument helped to provide a good description of the phenomenon under investigation (Neill, 2007). The interviews used in this research were semi-structured in nature (e.g.

open interview questions) see Appendix 6, focusing on exploring QM issues at CCs in the KSA, to facilitate a cause-effect background analysis. After analysis, this contributes usefully to facilitating the explanation, verification and triangulation of the research quantitative results; thus drawing up a more detailed picture of CCs, in addition to improving the research's final outcomes.

It is worth mentioning that the interviews used in this research also helped in identifying the current situation of QM application at CCs in the KSA, through providing in-depth information from the perspective of CCs' Top Managers and Faculty members, based on their own experiences. Their responses, in addition to the questionnaire results, helped in measuring the extent to which QM is currently applied at various CCs in the KSA. When compared to other quality approaches both nationally and internationally, these data helped characterize the existing gaps with best practice as well as helping to identify what needs to be done in order to apply and improve QM successful implementation at different Saudi CCs in the foreseeable future.

The target group for interview comprised ten Top Managers (i.e. the Dean or one of the Dean's deputies) from the ten selected CCs in the KSA, plus five Faculty members from five different CCs. The five faculty members were interviewed later on to obtain their views on the same questions, aiming to provide more reliability to the results obtained by quantitative instruments and from the Top Managers' interviews.

The semi-structured interview approach was chosen for these respondents (Top Managers) in order to draw a deeper understanding out of their great experience and knowledge (in comparison to Faculty members or Students), of the status and application of the NCAAA QAS, and whether any shortcomings or obstacles prevented the QAS from being totally and successfully applied. Notably, the interview questions would be the main questions and issues for in-depth focus at each interview, taking into account the fact that other questions and issues

would definitely emerge as a result of the ongoing discussions with each interviewee. The interview responses went beyond the prepared questions and provided better and deeper understanding when added to the quantitative responses., which in turn were aimed to answer research question RQB1: *What is the current situation of QM and service quality in CCs within the KSA?*

4.5.3 Research instruments used in this research

Each of the three questionnaires employed aimed to clarify the current situation as regards service quality delivery in the CCs studied, for the most important categories of internal stakeholders, e.g. Students, Faculty and Top managers. Each questionnaire measured the three groups' expectations and experiences of the education services provided. The Faculty questionnaire additionally measured their experiences regarding the NCAAA QAS's current status and application in their CCs. It was not considered that Students would be sufficiently well informed about the QAS to contribute to this aspect of the data collection. For the Top managers, interviews (as described above) were used to understand their views and experiences regarding the application of the QAS. See Appendix 6.

Using multiple questionnaires and respondent groups was supported by Parasuraman *et al.*, (1988) due to the different perspectives and larger amount of information that could be obtained; thus contributing to the formulation of a better understanding of the current service situation.

The quantitative instruments were prepared in accordance to SERVQUAL prepared by Pararsurman *et al.*, 1988, with some modifications that were made to keep the flow of questions to suit the educational context. However, the original grouping was taking into consideration in the analysis phase.

The following two tables show the grouping of questions representing the five dimensions and their peer questions of this



research in both expectations and experiences. See Appendix 5: Samples of the research instruments.

Expectations:

Dimensions						
Tangibility	SERVQUAL questions	Q1	Q2	Q3	Q4	
	Corresponding questions in my questionnaire	1	2	3	5	
Reliability	SERVQUAL questions	Q5	Q6	Q7	Q8	Q9
	Corresponding questions in my questionnaire	6	7	4	10	9
Responsiveness	SERVQUAL questions	Q10	Q11	Q12	Q13	
	Corresponding questions in my questionnaire	8	12	13	14	
Assurance	SERVQUAL questions	Q14	Q15	Q16	Q17	
	Corresponding questions in my questionnaire	20	16	17	18	
Empathy	SERVQUAL questions	Q18	Q19	Q20	Q21	Q22
	Corresponding questions in my questionnaire	11	22	15	19	21

Table 1: SERVQUAL expectation questions distribution on the five dimensions

Experiences:

Dimensions						
Tangibility	SERVQUAL questions	Q1	Q2	Q3	Q4	
	Corresponding questions in my questionnaire	1	2	3	4	
Reliability	SERVQUAL questions	Q5	Q6	Q7	Q8	Q9
	Corresponding questions in my questionnaire	5	6	7	8	9
Responsiveness	SERVQUAL questions	Q10	Q11	Q12	Q13	
	Corresponding questions in my questionnaire	10	11	12	13	
Assurance	SERVQUAL questions	Q14	Q15	Q16	Q17	
	Corresponding questions in my questionnaire	14	15	16	17	
Empathy	SERVQUAL questions	Q18	Q19	Q20	Q21	Q22
	Corresponding questions in my questionnaire	18	19	20	21	22

Table 2: SERVQUAL experiences questions distribution on the five dimensions

4.5.4 Credibility & Validity of Research Instruments

Bias in methods used is one of the major causes of measurement errors or assessment “contaminant” as Zerbe & Paulhus (1987) called it, which directly affects the credibility and validity of study results and conclusions (Podsakoff *et al.*, 2003). Problems such as acquiescence, or social desirability, may occur when a respondent agrees with a questionnaire statement without thinking for himself (Meisenberg & Williams, 2008), but rather follows what he believes to be acceptable in his social context, presenting “oneself favourably regarding current social norms and standards” (Zerbe & Paulhus, 1987, p.250), answering according to how they should behave socially, even if they think differently. Central tendency bias is another element that affects survey results negatively. It occurs when respondents avoid extreme responses and keep choosing the middle answers for managerial or personal reasons (Saville & Willson, 1991).

Generally speaking, the major problems are “errors of measurement, non-response, or frame bias” (Brown, 1967, p.117).

Although such errors cannot be totally eliminated, their effect can be reduced by several methods (Brown, 1967), which will be clarified later. These problems represent obstacles facing the generalization of study results, potentially reducing their benefits (Halley, 2004).

A key question regarding the preparation of research instruments is: what could be done to avoid problems affecting credibility, to make research results more creditable and control biases? Fisher (1993) suggested the use of indirect questioning, which can unfold respondents' ideas regarding their real perceptions without being biased towards what they think is acceptable in the relevant context. In the current research, the questions were designed to illicit participants' responses identifying the ideal service delivery according to their own perceptions. This technique motivates respondents to speak about their "external world" (Westfall *et al.*, 1957, p.138), not about themselves and their social context.

What Cloud & Vaughan (1970) called 'balanced keying' is another means for avoiding acquiescence bias. It works through the balanced distribution of positive and negative statements or "true" and "false" answers (Cloud & Vaughan, 1970; Podsakoff *et al.*, 2003). However, such balanced keying notion was criticized as "it may disrupt the logical flow and make it impossible to use the funnelling procedure" (Podsakoff *et al.*, 2003, p.888); however, this can be avoided by balancing the structure of the statements from negative to positive, while maintaining its content, in order to keep the logical flow of the questionnaire. If that did not adequately achieve the desired goal, the analysis phase could take this into consideration. Statistical remedies using statistical programmes such as SPSS can also play a role in reducing the effect of biases on research results (Podsakoff *et al.*, 2003).

4.5.5 Dealing with Bias

As it was mentioned in the above that bias in methods is one of the main causes of error in measurement, in which credibility and



validity of research results and conclusions can be negatively affected the coming precautions were undertaken. This research tried to avoid bias by: using a combination of quantitative and qualitative instruments, using seven-point scale answers, balanced keying, and statistical remedies helped in eliminating bias effects. Moreover, applying the research instruments on the various relevant targeted groups (i.e. Student, Faculty member and Top Manager questionnaires as well as Top Managers' and five Faculty members interviews) and the selection criteria for CCs sample, that will be described later, helped in gathering detailed information. In addition, it helped in controlling and avoiding bias. The pilot study that was conducted before the full deployment of the study questionnaires identified problems with some questions, and allowed their elimination. The researcher also had initial contacts with the selected 10 Top CC managers, to clarify study aims, explain the survey instruments and the importance of collecting their clear and honest responses. The need for valid and credible information was stressed, to assist in development of policy recommendations for applying and enhancing CC quality management.

The participants either in the pilot study or in main survey data and information gathering were chosen randomly by the officials of each CC. They distributed and collected the three survey instruments without any interference from the researcher. Even in interviews they decide the member of Top Managers who should participate in each interview.

4.6 Research Design

This research was designed aiming to measure service quality in CCs in KSA, measure the application of QAS and to establish the relationship between QAS and perceived service quality. Therefore, both QAS and service quality have to be measured and analyzed.

4.6.1 The preparation of the research instruments

The research instrument were quantitative and qualitative. The quantitative were three questionnaires prepared for the three categories, Students, Faculty and Top Managers. These questionnaires made of two parts. The first contains 22 questions measuring the expectations of a given category and the second part contains also 22 questions measuring the experiences of the same category. These 22 questions are grouped into five groups each measure a dimension of the service quality five dimensions. The analysis of the data gathered from these instruments will measure the perception of the three categories of service quality and will show the situation of CCs in each dimension of service quality.

Another 30 questions were added to the Faculty questionnaire. They were intended to measure quantitatively the application of QAS from the Faculty perception. Interviews of a Top Manager from each CC and five Faculty members were conducted to measure qualitatively their perception of QAS and their relationship to service quality. The analysis of the data gathered will show how successfully CCs are applying QAS on the one hand, and the correlation of QAS and service quality on the other hand.

The analyses of the results obtained by the previous instruments and their interpretation will be able to answer the research questions RQB1:(What is the current situation of QM and service quality in CCs within the KSA?) and RQB2:(what are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?). These analyses will be clarified and their results will interpreted in the following two chapters.

In order to prepare the instruments for distribution, the three questionnaires were first formulated in English according to the SERVQUAL model that has been continuously developed by Parasuraman, Zeithaml & Berry throughout the following years of 1985,

1986, 1988, 1991, 1993 and 1994 (Wisniewski 2001), in light of the advice, revision and arbitration by the researcher's supervisors at Business School (Nottingham University), through many phases of preparation.

Then, all the research instruments have been translated by the researcher into Arabic (the mother tongue of the targeted group). The researcher has a BA in Education from the Arabic division and worked as a teacher of Arabic language, which made him able to produce a well written Arabic version of all the research instruments, which has been acknowledged by the four consultants later on. The research instruments were firstly bilingual, to make the consultants aware of the original and the translated versions. Samples of the research instruments can be found in the Appendices (5 and 6).

After this phase, four additional professional academic staff from Huraimila CC in KSA with experience in the field of quality and good knowledge of both Arabic and English languages have been consulted to make sure that the questionnaire translation is accurate and conveys the same meaning as its English version. These consultants were:

- 1- Dr. Mohammed Al-Sulaiman. The dean of HCC. Associate Professor.
- 2- Dr. Ahmed A. Basha, Professor & Assistant Dean. Dr. Basha has American nationality and received his academic qualifications from there.
- 3- Dr. Issa M. Shehabat, Assistant Professor in the Computer Science Department. The Quality Management official in HCC.
- 4- Dr. Khalid M. Bahaa El-Din, Assistant Professor in Language and Translation in the English department in HCC.

The four consultants reviewed all the research instruments and gave their direct and written feedback to the researcher. Then, after revising the instruments according to the minor changes advised by the four consultants, the Arabic versions were ready for pilot study.



4.6.2 The Pilot Study

After all questionnaires and interviews had been prepared originally in English and then translated into Arabic, the Arabic instruments were presented to the Dean of Huraimila Community College in KSA and three Faculty members to answer all the questions in the Faculty questionnaires and the Top Managers questionnaire questions. Then the dean responded to the interview questions and also gave his feedback on all the questions raised by the researcher. Their feedback was taken into consideration and changes were made. A group of students were randomly chosen (in the HCC cafeteria) to fill the Students' questionnaire under the observation of the researcher. It appeared that they had no problem responding to all of the questionnaire questions. They replied that they understood each question and were able to answer all of them. The researcher had previous experience of teaching CCs students working as a lecturer in Huraimila CC. In addition, his bachelor's degree was from the Arabic language division. These experiences ensured that the language used in all the instruments was well presented and well understood by the research population.

As a result, the Arabic versions of questionnaires and interview were ready to be distributed among the targeted group population together with the English version that was also distributed to some Anglophone respondents.

4.6.3 The selection of CCs sample

Why ten CCs? The intention of the researcher was to cover as many CCs and stakeholders' categories (i.e. Students, Faculty and Top managers) as possible, in order to get a clearer picture of the quality management situation in CCs in KSA. However, it is beyond the ability of one researcher to cover all 47 CCs with the resources available and ten CCs is a good sample, while being the maximum number the researcher can manage to contact. The intention was also to pre-empt any shortfalls

in the predicted low responses from participating CCs. This prediction was made from the researcher's previous experience as a faculty staff member of one of the 47 CCs.

The criteria followed in this research: numbers, geographical distribution, gender and size factors, and the random choice of respondents (since the choice was left to each CC) can enhance the validity of the results.

Selecting the three categories: Students, Faculty and Top managers, covers the main internal stakeholders in HEI. As clarified, other studies did target students and faculty (Zafiropoulos & Vrana, 2008) to measure the perspective of both the service provider and customer (Czepiel, 1990). However, this study added the third category of internal stakeholders: Top managers, in order to also measure the perceptions of decision makers in CCs in KSA. The results obtained revealed the benefit of measuring Top managers' perceptions and clarified that Top managers are not aware of the real problems affecting quality management that confront their Students and Faculty.

The decision was made to contact one Top manager from each CC and the same Top manager would be interviewed to get his/her perception of quality management. This decision was made because CCs have three Top managers (Dean and two Deputies) and it would prove difficult to involve them all. One out of three would be representative of the Top managers in each CC. However, in application, even that proved very difficult because they are always busy and have no time for such participation.

The decisions on number of participating Students and Faculty and the choice of who participated were also left to each CC in the sample. The numbers obtained in quantitative instruments were: 196 Students, 162 Faculty and 10 Top managers. The number of participating Faculty and Top managers in interviews was 5 Faculty and 9 Top

managers. All were chosen randomly, covering a variety of geographic locations, size and gender.

Since the number of participating Students for each CC was low, caution must be exercised in drawing definitive conclusions at the local level. However, because the overall sample of 196 is large and is drawn from a representative sample of CCs, generalizations about the CC sector as a whole can be made.

Although the number of students alone is not big, this should not seriously affect the findings and conclusion of this research, especially when taking into account the total number of respondents (382).

Another point to highlight is the accuracy of central data and the actual number of Students and Faculty in each CC. It was discovered that the statistics were not very accurate, as in the case of Skaka CC, where the number of Faculty was only 12, according to the information provided by one of its officials. The same occurred with Hail CC, mentioned in the MOHE official statistics having 348 students, while according to its Dean it had only 5 students! Therefore it was replaced with Skaka CC in this research sample. The same is happening with Huraimla CC –where the researcher works. Most of its faculty (around 40) were directed by the University Rector to work in another University college last year. This is mentioned in the limitations of this research.

The random choice of participants applied in this research was recommended, to make the sample representative of the whole population. Grafström & Schelin, (2014, p.278) stated that they “treat random sampling to have statistically valid and unbiased estimators”. Campbell (1955, p.339) also recommended “employing randomness as the most feasible means of achieving representativeness on all possible relevant ground”. Random selection enhances the external validity and the ability for generalization (Black, 1999). This strength can balance the low number of participants achieved by this research.

The ten CCs targeted for questionnaires and interviews were expected to represent the entire 47 CCs population in the KSA. They had been selected according to the following three major criteria, namely:

- 1- Geographic distribution to cover most CCs in the Saudi context. Based on the fact that currently there are thirteen administrative regions in the KSA, as stated by the “Royal Decree A/92 dated 27/8/1412 AH” (Corresponding to the year 1992 AD) (MOFA, 2006), ten CCs were selected as a sample, each in a different administrative Region;
- 2- Size of each selected CC, as Saudi CCs enjoy different numbers of students, from 61 in Rijal Alma and 71 in Aldwadmi, to 2150 students in Jazan and 2403 in Najran respectively. Thus, sample selection have taken into consideration their size category (big/small) according to the number of their current enrolled students; and
- 3- Gender factor, as most CCs in the KSA have both males and females taught separately in the same CC, while others have a single-sex student cohort as evidenced by the following Table 4:

#	CCs Types in KSA	#	%
1	Male-Separated	18	38
2	Female-Separated	10	21
3	Both Genders	19	41
Total		47	100

Table 3: CCs Types in KSA according to their Enrolled Students' Gender.

All three types will be represented in the selected CCs sample.

Later on, the researcher had- in person - travelled to visit most of the selected ten CCs and applied his study questionnaire forms to participant Top Managers, Students and Faculty staff, randomly selected, in addition to conducting an interview with a single Top Manager at each selected CC.



According to the information previously mentioned, Saudi CCs can be classified in the following overall categories in Table 5.



CCs students Category	No. of CCs in each Category	No. of Selected CCs	Males	38%	Females	21%	Both Genders	41%
-500	28	5	1**	1.90	1	1.05	2	2.05
500-1000	9	2	1	0.76	-	0.42	1	0.82
1000-1500	2	1	1*	0.38		0.21	*	0.41
1500-2000	5	1		0.38	1**	0.21	1	0.40
2000-2500	3	1		0.38		0.21	1	0.40
Total	47	10	3		2		5	

Table 4: Saudi CCs Overall Categorization Statistics.

(*) In the 1000-1500 cohort, both of its CCs serve only Males. Thus, according to the adopted selection criteria for the research sample, both genders representation is not applicable and a Male CC would be selected instead.

(**) Males have 2 CCs in the (-500) cohort, compared to a single one for Females. Due to the previous change in (*) that added a CC to the Male category, Female CCs should be 2 to make the Female category able to fulfill its baseline percentage (21%) while Males would be 1. As a result, the final distribution would be as follows: Males: 3, Females: 2 and Both Genders: 5.

Table (6) below shows the **distribution** of Saudi CCs according to size, gender and Region categories:

CC student Category	No. of CCs in each Category	Region	#	Name of Institution	No. of Students	Gender
-500	28	Riyadh	1	Shagra CC	127	M
			2	Aldwadmi CC	71	M
			3	Alquaiyah CC	380	BG
			4	Huraimila CC	369	BG
			5	Wadi Addwaser CC	208	M
			6	Almajmaa CC	437	M
		Makkah	7	Jeddah CC	376	M
			8	Ranyah CC	80	F
		Al-Madinah	9	Khaibar CC	284	BG
			10	Alhenakiah CC	226	F
			11	Almahd CC	160	BG
			12	Alola CC	72	BG
			13	Alhenakiah Female CC	91	F
		Al-Qasim	14	Buraida CC	160	M
			15	Onaiza CC	170	M
		Asir	16	Alnamas CC	154	M
			17	Khamis Mushait CC	452	M
			18	Khamis Mushait Female CC	228	F
			19	Rijal Alma Female CC	139	F
			20	Mhail Aseer CC	230	M
			21	Rijal Alma CC	61	M

CC student Category	No. of CCs in each Category	Region	#	Name of Institution	No. of Students	Gender
500-1000	9	Ha'il	22	Ha'il CC	348	BG
		Northern Borders	23	Northern Borders CC	446	BG
		Al-Baha	25	Baha CC	153	M
			26	Skaka CC	190	BG
			27	Alquraiat Male CC	195	M
			28	Tabarjal CC	254	BG
		Riyadh	1	Alafraj CC	526	M
		Eastern Region	2	Dammam CC	754	M
			3	Hafr Albatin CC	520	M
			4	AASCSC****	980	BG
			5	Ahsa Female CC	818	F
			6	Alqatif Female CC	714	F
		Asir	7	Abha CC	786	F
Tabouk	8	Tabouk CC	713	BG		
Najran	9	Najran Community Service College	642	F		
1000-1500	2	Riyadh	1	Riyadh CC	1355	M
			2	Alkharj CC	1137	M
1500-2000	5	Riyadh	1	RASCSCKSU***	1954	BG
			2	Makkah CC	1833	F
		Makkah	3	Taif CC	1739	BG
			4	Madinah CC	1739	BG
		Eastern Region	5	DASCSC*****	1845	BG
2000-2500	3	Riyadh	1	RCCSCEIU**	2146	BG
		Jizan	2	Jazan CC	2150	BG
		Najran	3	Najran CC	2403	BG

**RCCSCEIU=Riyadh College of Community Services and continuous Education Imam University.

***RASCSCKSU=Riyadh Applied Studies and Community Services College King Saud University.

****AASCSC=Ahsa Applied Studies and Community Services College.

*****DASCSC=Dammam Applied Studies and Community Services College.

Table 5: Distribution of Saudi CCs according to Size, Gender & Region Categories.

4.6.4 Selected CCs Sample

According to the adopted criteria for selecting the research CCs sample, i.e. geographic distribution, size of each selected CC and the gender factor, in addition to the adaptation made in Table 5 statistics, the ten selected CCs are shown in the following table:

CC student Category	No. of CCs in each Category	No. of Selected CCs in each Category	Region	#	Name of Institution	No. of Students	Gender
-500	28	4	Al-Qasim	1	Onaiza CC	170	M
			Asir	2	Khamis Mushait Female CC	228	F
			Ha'il	3	Ha'il CC	348	BG
			Northern Borders	4	Northern Borders CC	446	BG
500-1000	9	2	Eastern Region	5	Dammam CC	754	M
			Tabouk	6	Tabouk CC	713	BG
1000-1500	2	1	Riyadh	7	Riyadh CC	1355	M
1500-2000	5	2	Makkah	8	Makkah CC	1833	F
			Al-Madinah	9	Madinah CC	1739	BG
2000-2500	3	1	Jizan	10	Jazan CC	2150	BG
Total	47	10					

Table 6: Overall Statistics of the Ten Selected CCs Sample.

These ten selected CCs can be visually depicted on the following map:



Figure 6: Map of the Selected Ten CCs Research Sample.

The researcher made an initial contact with each of those selected CCs to make an appointment for a scheduled research visit in the field, with the aim of distributing and collecting survey questionnaires as well as conducting study interviews with selected participant subjects.

4.6.5 Approach to Data Analysis

The questioners role is to measure quantitatively the three categories of internal stakeholders, Students, Faculty and Top Managers, perception of service quality. The Faculty questionnaire has additional 30 questions to measure their perception of the QAS application in their CCs. The interviews of Top Managers and a group of five Faculty members were to measure qualitatively the application of QAS also. The quantitative and qualitative analysis of the application of QAS were conducted to see to what extent CCs are applying QAS successfully on the one hand, and to investigate the influence of QAS on perceived service quality, on the other hand.

Initial data collection

The researcher traveled to KSA in February 2012 to apply the pilot study and to distribute research instruments among the chosen CCs. The data collection trip took two months to complete and some papers were sent to the researcher after his return to the UK. The total period dedicated to the data collection was eight weeks. The researcher contacted the CCs mentioned in Table 7 in order to have them participate in completing the research instruments. From the contact, it was revealed that some changes were necessary:

- 1- Khamis Mushait Female CC has been replaced. It was discovered after contact by the researcher that it was a male CC. This mistake was on the statistics file from MOHE sent to the researcher by the Statistics Department in the MOHE. It had been replaced by Abha Female CC, in the same administrative division.



- 2- Makkah female CC has been found both gendered. It was too late to be replaced on the one hand and there is no other female CC in that category on the other hand.
- 3- Ha'il CC was avoided, as the dean clarified that the CC is undergoing "reconstruction" that year. Ha'il CC had that time only five students who will be graduating after two months. Otherwise, they have no students at that academic term. As a result, it was replaced with Skaka CC from Al-Jouf administrative division.
- 4- Northern Borders CC was not accurate information, as this region was found by the researcher having three CCs: Turaif CC, Rafha CC and Arar CC. The descriptive size that fitted was Turaif CC, so it had been chosen.
- 5- Finally, Dammam CC after informing the research that they will send their responses via post, when the post arrived, it was just a letter to apologize from responding to the research instruments as they believe they have not yet applied the QAS. The researcher contacted them and clarified that it was intended by the research to measure the current status of CCs as they are, but they insisted they will not respond. As a result, and since their responses came late, Dammam CC was replaced with Huraimila CC (Although 30 students from Dammam had responded to the students questionnaire, however, they were denied).

The instruments distributed to each CC were one questionnaire to a member of the Top Managers, 30 questionnaires to Students, 30 questionnaires to Faculty and one interview to the same Top Managers. The number and type of instruments obtained are detailed in the following table:



#	Name of CC	No. of faculty responded	No. of students responded	Top Managers questionnaire	Top Managers interview
1	Onaiza CC	16	19	1	1
2	Abha Female CC	29	30	1	1
3	Skaka CC	8	19	1	1
4	Turaif CC	17	20	1	1
5	Huraimila CC	8	14	1	1
6	Tabouk CC	19	14	1	1
7	Riyadh CC	16	15	1	**
8	Makkah CC	15	9	1	1
9	Madinah CC	29	30	1	1
10	Jazan CC	5	26	1	1
Total		162	196	10	9

Table 7: Overall Statistics of the Ten Selected CCs Sample after implementation modification.

** Had not arrived.

The rate of subjects respond depend on two factors:

- 1- The number of Students and Faculty available in each CC. Some CCs has only 12 Faculty members and only five students like the case of Ha'il CC which was avoided, or the case of Turaif and Skaka CCs were most of, if not all, their Faculty and Students responded.
- 2- The level of cooperation the Top Managers show. Like the case of Makkah CC who has 1833 students and their respond was 15 and 161 faculty and their responses were only 6. Or the case of Dammam CC who apologized from participating to avoid showing some of their weaknesses.

These ten selected CCs, after **implementation modification**, can be visually depicted on the following map:



Figure 7: Map of the Selected Ten CCs Research Sample.

By the end of the data collection trip most of the data were in the hands of the researcher; however three CCs data were sent by post after three weeks of the researcher's return to the UK.

4.6.6 Chapter (4) Summary

This chapter has clarified the basic features of the research methods used in this research and the rationale for using them. It has reviewed both the quantitative and qualitative methods and their instruments, made a comparison between their strengths and weaknesses and how the two can be used together. Since this research is investigating the relationship between QAS and service quality, both need to be measured. As a result, the instruments to be used in this research were determined. Then the instruments were prepared to be credible and reliable and avoid bias and other research problems affecting credibility & validity of research instruments. It has finally reviewed the data collection processes starting by the pilot study and

finishing with collecting data and information from questionnaires and interviews from the sample CCs.

In the next chapter the results of two separate analyses will be presented. The first analysis is for measuring service quality and its five dimensions from the perspectives of Students, Faculty and top managers, with a general comparison between the ten CCs on the five dimensions of service quality and other two comparisons between the ten CCs on the five dimensions of service quality from the perspective of both Students and Faculty. It will review the gender disparities in sample responses. The second analysis is about measuring QAS application in CCs in KSA. These two analyses were applied to answer one of the four research questions RQB1:(What is the current situation of QM and service quality in CCs within the KSA?). A Factor Analysis of QAS of the Saudi NCAAA and the correlation between QAS and the Five Dimensions of SERVQUAL will be displayed.

Chapter 5: Results

Three separate analyses were conducted using the Statistical Package for the Social Sciences (SPSS). The first analysis, described in section 5.1, was in relation to service quality and its five dimensions, the second, described in section 5.2 was in relation to QASs, and the final analysis, in section 5.3, examines the influence of QASs on perceived service quality. It should be noted that as both the QAS 30 questions of Faculty and the interviews of Top Managers and Faculty were about QAS application in CCs in KSA, they together provided data for the second analysis. These analyses were undertaken to answer the research questions RQB1:(What is the current situation of QM and service quality in CCs within the KSA?) and RQB2:(what are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?). These analyses will be clarified in this chapter.

5.1 The Five Dimensional Analysis

The five dimensional analysis was applied on the three categories of this research, Students, Faculty and Top Managers, to measure their perception of the quality service in CCs in KSA. The following tables show the results obtained by this analysis regarding the five dimensions of service quality (Tangibility, Reliability, Assurance, Responsiveness and Empathy designed by Pararsurman *et al.*, 1988) from the perception of Students and Faculty.

5.1.1 Students

The following tables show the five dimensional analysis for Students to measure their perception of quality in the educational service provided in CCs in KSA. It should be mentioned that the T-Test is used here to compare the means of a group of items (expectations) with means of another group (experiences) to see the difference between the two. Therefore, the means scores are not between 1-7, like the questionnaires scale.



T-Test

		Mean	N	Std. Deviation
Pair 1	Tangibility expectations (tan1)	23.05	150	4.78
	Tangibility experiences (tan2)	17.97	150	5.13
Pair 2	Reliability expectations (rel1)	28.24	132	5.24
	Reliability experiences (rel2)	21.38	132	4.65
Pair 3	Responsiveness expectations (res1)	18.23	130	5.86
	Responsiveness experiences (res2)	17.05	130	4.27
Pair 4	Assurance expectations (assu1)	19.97	131	4.67
	Assurance experiences (assu2)	18.54	131	6.41
Pair 5	Empathy expectations (emp1)	24.70	135	5.16
	Empathy experiences (emp2)	20.39	135	4.28

Table 8: Students T-test

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	tan1 & tan2	150	.127	.121
Pair 2	rel1 & rel2	132	.003	.975
Pair 3	res1 & res2	130	-.051	.566
Pair 4	assu1 & assu2	131	.118	.179
Pair 5	emp1 & emp2	135	-.082	.346

Table 9: Students Paired Samples Correlations.

Paired Samples Test

		Mean	Std. Deviation
Pair 1	tan1 - tan2	5.08	6.55
Pair 2	rel1 - rel2	6.86	7.00
Pair 3	res1 - res2	1.18	7.42
Pair 4	assu1 - assu2	1.43	7.47
Pair 5	emp1 - emp2	4.31	6.97

Table 10: Students Paired Samples Test.

The above three tables for Students show that there are significant differences between experiences and expectations of service with quality gaps in Tangibility, Reliability, Assurance and Empathy, as the experiences means were higher than expectations means.

All the dimensions have statistically significant differences between Expectations and Experiences of Students except dimension three (Responsiveness) which has no statistical significance.

5.1.2 Faculty

The following tables show the five dimensional analysis for Faculty, to measure their perception of quality in the educational service provided in CCs in KSA.

T-Test

		Mean	N	Std. Deviation
Pair 1	(tan1)	25.26	149	3.56
	(tan2)	19.72	149	5.70
Pair 2	(rel1)	29.68	127	4.48
	(rel2)	25.41	127	5.41
Pair 3	(res1)	20.36	129	5.23
	(res2)	20.73	129	5.82
Pair 4	(assu1)	25.01	134	5.20
	(assu2)	21.31	134	4.63
Pair 5	(emp1)	26.86	138	5.63
	(emp2)	26.75	138	6.02

Table 11: Faculty T-test.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	tan1 & tan2	149	.061	.457
Pair 2	rel1 & rel2	127	.316	.000
Pair 3	res1 & res2	129	.408	.000
Pair 4	assu1 & assu2	134	.458	.000
Pair 5	emp1 & emp2	138	.365	.000

Table 12: Faculty Paired Samples Correlations.

Paired Samples Test

		Mean	Std. Deviation
Pair 1	tan1 - tan2	5.53	6.53
Pair 2	rel1 - rel2	4.27	5.83
Pair 3	res1 - res2	-.36434-	6.03
Pair 4	assu1 - assu2	3.71	5.14
Pair 5	emp1 - emp2	0.12	6.57

Table 13: Faculty Paired Samples Test.

The above three tables show that there are significant differences between experiences and expectations as perceived by Faculty staff and that there are quality gaps in Tangibility, Reliability and Assurance from

the Faculty perspective, as the experiences means were higher than expectations means.

5.1.3 Top Managers

The following tables show the five dimensional analysis for Top Managers to measure their perception of quality in the educational service provided in CCs in KSA.

T-Test

		Mean	N	Std. Deviation
Pair 1	tan1	25.6	5	1.52
	tan2	22.8	5	5.85
Pair 2	rel1	29.7	6	3.98
	rel2	29.7	6	3.44
Pair 3	res1	24.2	6	3.31
	res2	23.7	6	5.13
Pair 4	assu1	27.5	6	0.55
	assu2	23.5	6	3.39
Pair 5	emp1	30.4	5	3.29
	emp2	30.4	5	2.97

Table 14: Top Managers T-test.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	tan1 & tan2	5	-.406	.498
Pair 2	rel1 & rel2	6	-.564	.244
Pair 3	res1 & res2	6	.805	.053
Pair 4	assu1 & assu2	6	.162	.760
Pair 5	emp1 & emp2	5	.903	.036

Table 15: Top Managers Paired Samples Correlations.



Paired Samples Test

		Mean	Std. Deviation
Pair 1	tan1 - tan2	2.80	6.61
Pair 2	rel1 - rel2	0.00	6.57
Pair 3	res1 - res2	0.50	3.15
Pair 4	assu1 - assu2	4.00	3.35
Pair 5	emp1 - emp2	0.00	1.41

Table 16: Top Managers Paired Samples Test.

The above three tables show no significance difference between Top Managers expectations and experiences in all the five dimensions of service quality. They seem to be according to their response to some extent not aware of the real problems Faculty and Students are suffering from, which needs be taken into consideration by stakeholders and researchers.

5.1.4 Results interpretation:

It has been mentioned previously in this research that the "concept of quality refers to the match between what customers expect and what they experience" (Ali & Zairi, 2005, p.8). It was also mentioned that "any mismatch between expected and perceived service is a 'quality gap'" (Grönroos, 2000; cited by Ali & Zairi, 2005, p.9). The quality gaps represent the organization's main areas for development. Adequate understanding of consumer expectations and needs allow "managerial judgment to be exercised from a position of knowledge rather than guesswork" (Donnelly *et al.*, 1995, p.20) to better manage organizations' resources and better achieve customers' expectations. These gaps were measured in this research via the three questionnaires designed for that aim. In accordance to what (Czepiel, 1990) emphasized these questionnaires were designed to measure the perspective of both the service provider and customer.

When the customer is satisfied during and/or after the provided service, the organization (service provider) is doing well. If the customer is not satisfied, the organization is not providing good quality and

SERVQUAL – via its various dimensions – will help in determining where these gaps are, which caused such dissatisfaction (quality gaps) and what needs to be taken into consideration in order to reach customer satisfaction (Bayraktaroglu & Atrek, 2010).

The analysis of the three categories in the above shows that Students experiences do not meet their expectations in four of the five dimensions of service quality. These four dimensions are **Tangibility, Reliability, Assurance and Empathy** respectively. While just the **Responsiveness** met their expectations, the other dimensions have quality gaps that should be dealt with if CCs are to have good Service Quality. Having four gaps out of five shows how weak the quality of educational service provided in CCs in KSA is and guides to the aspects or dimensions to be in mind for developing the educational service in CCs if they are to be in good quality according to the dimensions of SERVQUAL. From another perspective Faculty are not satisfied also with the educational service provided in CCs in KSA as three dimensions out of five were lower than what they expect. These dimensions are **Tangibility, Reliability and Assurance** respectively. These three dimensions are the same in Students analysis -in addition to Assurance for Students-which provide more evidence that the Students results are more reliable. The difference between Faculty and Students will be discussed shortly.

No gaps were found in the Top Managers' analysis, as the means of their expectations and experiences are nearly the same. which can be due to the low expectations they have. From one side, Top Managers know what is possible to CCs to get and what is not, so they do not demand or expect what they cannot get. In addition, they are responsible for delivering the educational service in CCs to its customers (i.e. Students) so it is not expected from them to criticize their performance. Nevertheless, they seem to be according to their response to some extent not aware of the real problems Faculty and Students are suffering from, which needs be taken into consideration by stakeholders and researchers.

However, as Students in the educational services represent customers whom should be satisfied by the service provided and as the Faculty of CCs in KSA are sharing the same view with students in three dimensions out of the four that Students raised, it can be said in the conclusion, that CCs are having four gaps in the services they provide to their Students which are: Tangibility, Reliability, Assurance and Empathy. In order to enhance their services to be of good quality and in order to satisfy their Students, Faculty and stakeholders, CCs should bridge these quality gaps. How this might be achieved will be detailed in the policy recommendations section.

5.1.4.1 Why did students have a quality gap in Empathy while faculty didn't?

As Empathy is about paying students individual attention, knowing Students' needs, CCs having their students' best interests at heart and convenient working hours, it can be asked here, why did Students have a quality gap in this dimension while Faculty didn't?

In order to answer this question the relating faculty questions and the interviews of Top Managers and Faculty were revisited. It was found that there are six aspects that can go under Empathy: students feedback, monitoring and evaluating students' learning outcomes, students support, medical services, social services and student housing facilities. These are explained below:

Students feedback

Top managers (TM) and Faculty shared the opinion that appreciate students feedback in evaluating and improving their services. For instance, the Dean of Madinah CC mentioned that his CC conducts a comprehensive evaluation for the educational system depending on students' feedback. Faculty Member (FM) from Tabouk CC spoke about their adopted mechanism for developing learning resources in consultation with students saying that they are often developed based on the survey questionnaires targeting both students and FM. From another perspective, the interviewed FM from Huraimila CC provided an

opposing opinion stressing the fact that his CC lacks consultation with students and FM in this concern.

Although, students most likely will have their voice heard, however, this does not guarantee that their opinions or ideas will be implemented on the ground.

Monitoring and evaluating students' learning outcomes

Majority interviewed TM emphasized their CCs suffers from weak performance, unsatisfactory limited efforts in monitoring and evaluating students' learning outcomes as CCs' role usually ends with students' graduation so they rarely follow their employment in the labor market and measure the employers satisfaction. This may happen because of an external reason. Makkah CC TM indicated that his CC's outcomes have recently shown "a crisis" due to employment stakeholders' unclear vision.

Overall, it can be concluded that generally CCs monitor and evaluate students' learning outcomes both during and after their study period; however, they suffer from a weak level of actual implementation on the ground.

Students' support

Students sometimes receive training support, as highlighted by the Dean of Turaif CC who stated "each course focuses on training students at relevant required skills, thus, there's no room at all for theoretical educational issues".

In the interviews with FM, participants highlighted their agreement with their counterpart TM further adding that their CCs render another related service for students by providing them with textbooks for low prices to enhance their learning. FM in Huraimila CC indicated that they "send some students during the summer vacation to study English Language at the United States on the CC's expenses as part of its twinning program with a counterpart American CC."

It could be said here that as CCs TM and FM are focusing on plural attention, Students are looking for individual attention from their CCs, which has not been mentioned or achieved.

Medical services

Interviewed TM stated that their CCs don't provide adequate medical services. Instead, they usually adopt the referrals mechanism allowing Students to receive required medical treatment at university hospitals, if any, or at any public hospital at various nearby towns or cities.

Social services

In comparison with medical services, social services enjoy a better status. The Madinah CC Dean stated: "we have specialized units for student affairs, adequate supplies and high-level of students' participation". Notably, interviewed TM generally clarified that CCs' student extracurricular activities are conducted either by CCs themselves using their own programmes or by the university and its central students extracurricular activity programmes.

Student housing facilities

Overall, majority survey responses (i.e. 74%) indicated Saudi CCs mostly do not have suitable student housing facilities.

The interviews highlighted the fact that there's a general consensus among participant FM and TM that both their CCs and affiliated universities lack suitable student housing facilities. It should be noted that some other counterpart colleges in the KSA are affiliated to universities that already provide students with required housing services.

An important point here to be raised which may be strongly affecting students satisfaction in Empathy dimension is the fact that students in all CCs in KSA do not receive the monthly allowance presented to all other HE students in KSA.

It can be said in conclusion that the different perception of Empathy between Students and Faculty may be due to the different

angles both sides look at Empathy. Faculty focus on overall service delivery, while Students focus on customized service to individuals. Faculty look to what exist while Students look to what they lack. It appears that Faculty do not appreciate this aspect of the service that they deliver, which calls for more awareness about service quality dimensions and their importance for enhancing the educational service in HEI.

Finally, it is the customer who should be satisfied not the service provider if an organization want to have good service quality.

5.1.5 A comparison between the ten CCs on the five dimensions of service quality

The following tables show a comparison between the ten CCs in the five dimensions of service quality from the perspective of Faculty and Students. The Top Managers perspective will not be presented here as they -according to the previous analysis- do not see any gap in the service quality dimensions of their CCs.

All the tens CCs analysis for the two categories faculty and Students are shown cumulatively in the following two tables (18, 19):

The (#) symbol means a gap, the (##) symbols means large gap, the (*) symbol means no gap and the (**) symbols means experiences better than expectations. The basis of that was the difference between expectations and experience in any quality dimension. If they are the same, no gap exist. If expectation means were higher than experience means, there is a gap. If the difference is large then it is a large gap. If the experiences means were higher than expectation means, then the CC is making an achievement.

5.1.5.1 A comparison between the ten CCs on the five dimensions of service quality from the Faculty members point of view

It can be seen in table (32) and figure (46) in Appendix (2), that the perception of quality in the educational service provided in CCs in KSA from the perspective of Faculty, has three gaps at least in each CC. According to their Means, CCs can be ranked in the following table:



#	CC	Faculty Expectations					Faculty Experiences				
		Means					Means				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
1	Skaka CC	24.8750	32.8000	19.0000	24.6250	25.5000	#19.2500	#26.2500	**20.7143	#21.7500	**30.2500
2	Madinah CC	26.1724	30.4231	22.4800	26.6429	27.4286	#21.7407	#27.6296	**23.6154	#24.6552	**30.4643
3	Tabouk CC	23.5882	30.1333	21.0625	24.3529	25.1765	#22.0000	#24.9333	**21.3333	#21.4118	**26.7222
4	Abha Female CC	26.0345	29.3077	20.7308	26.4643	28.5926	#17.7857	#24.7308	**21.2400	#21.1600	*27.8800
5	Riyadh CC	26.4375	30.5714	21.1250	26.6250	29.0625	#23.0667	#27.1429	**22.4286	#23.6154	#26.8667
6	Turaif CC	26.0667	29.1875	19.4667	26.8462	33.5714	#21.7059	#27.4118	*22.9333	#21.3125	#27.6667
7	Onaiza CC	22.5333	27.1250	21.2857	24.4667	25.6667	#21.0000	#24.9286	#19.7333	#19.0714	*25.4667
8	Huraimila CC	23.7500	30.0000	21.4286	24.8571	27.6667	#16.7500	##21.5000	#18.5000	#18.2500	#25.0000
9	Jazan CC	25.4000	25.2500	17.0000	24.0000	20.2000	##16.2000	#22.5000	#12.2000	#18.6000	#18.4000
10	Makkah CC	25.5385	28.8462	15.2308	16.3077	23.4167	##13.3571	##18.7000	**16.6429	#14.5385	#17.5385

Table 17: CCs ranking from the faculty point of view

It can be seen that all the ten CCs have gaps in Tangibility, Reliability and Assurance. Tangibility got the worst performance as it has gaps in all the ten CCs with two CCs with large gaps. Reliability comes next as it has gaps in all the ten CCs with two CCs with large gaps, however, its gaps are smaller than those of Tangibility. Assurance is the



third worse dimension as it has gaps in all the ten CCs without large gaps.

Responsiveness has the best situation out of the five service quality dimensions. Seven CCs out of ten have no gaps in Responsiveness six of them got experiences better than expectations. Empathy comes next with five CCs out of ten, three of them have experiences better than expectations.

Huraimila CC and Jazan CC have gaps in all of the five dimensions with one large gap for each of them. Makkah CC has the worst situation of the ten CCs because of the two large gaps it has in Tangibility and Reliability, although it has experiences better than expectations in Responsiveness.

5.1.5.2 A comparison between the ten CCs on the five dimensions of service quality from the Student point of view

It can be seen in table (32) and figure (46) in Appendix (3), that the perception of quality in the educational service provided in CCs in KSA from the perspective of Students, has three gaps at least in each CC. According to their Means, CCs can be ranked in the following table:

#	CC	Students Expectations					Students Experiences				
		Means					Means				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
1	Huraimila CC	24.0769	27.5833	18.5000	21.4000	21.7000	#17.3636	#21.9000	#16.4545	*21.1111	**21.8182
2	Madinah CC	20.6429	27.4828	17.4074	21.3571	20.6207	#16.5862	##19.8214	*16.6154	#18.8148	**21.0741
3	Skaka CC	23.0714	29.5455	17.6667	21.3846	22.3636	#19.6154	##20.6923	*17.5385	#19.2727	*22.0909
4	Riyadh CC	23.6154	29.2500	16.4615	24.8667	17.2857	#17.6000	##20.0000	**16.6667	##16.8571	**20.8667
5	Tabouk CC	23.0769	26.9231	16.6667	22.8333	20.0000	#17.8182	#21.1818	**16.7778	#18.6000	#18.4000
6	Jazan CC	23.3750	25.2000	16.4667	25.1333	20.3571	##15.7500	#21.2000	**20.0714	##17.7333	#18.0625
7	Onaiza CC	21.2778	26.2632	18.2353	20.2778	21.8125	#18.1765	#21.5625	#15.8571	#16.3333	#19.4286
8	Abha Female CC	24.6333	29.7917	20.6800	25.3571	21.1250	#20.2857	##22.4615	#17.4000	#19.8462	#20.2692
9	Turaif CC	24.6000	30.2500	20.3333	26.1000	24.4000	##17.1250	##24.5714	#16.5556	#21.9000	#21.7000
10	Makkah CC	25.7143	32.5000	21.0000	26.5714	25.8333	##19.0000	##19.7143	##14.7143	##18.5714	#20.7143

Table 18: CCs ranking from the students point of view

It can be seen that all the ten CCs have gaps in Tangibility (equipment , physical facilities and personnel appearance of faculty) and Reliability (the level of dependency commitment, problem solving, sympathetic and reassuring and records keeping). Reliability has the worst performance of the five dimensions as it has gaps in all the ten CCs with six large gaps. Tangibility comes next as it has gaps in the ten CCs with three large gaps.

Responsiveness has the best performance of the five dimensions as it has five CCs out of ten with no gaps, three of them have experiences better than expectations. Empathy comes next as it has four CCs out of

ten with no gaps, three of them have experiences better than expectations.

Assurance is in the middle between the five dimensions as it has one CC out of ten with no gaps, however, three of the nine gaps are large ones.

Huraimila CC and Madinah CC topped the ranking while Makkah CC was the last in the Students ranking of CCs performance.

5.1.5.3 Results from the last two tables:

By comparing the results of the two categories (faculty and students) it can be seen that the dimensions Tangibility, Reliability and Assurance have gaps in both categories. The performance of the other two dimensions (Responsiveness and Empathy) is better than the other three. Skaka CC and Madinah CC have the highest performance out of the other ten CCs. The biggest difference was in Huraimila CC as it varied from the rank eight in the faculty table to one in the students table. Makkah CC has got the worst performance of the ten CCs as it obtained the last ranking. Makkah CC status will be detailed later on.

5.1.6 Gender disparities in sample responses

The results obtained were from ten different CCs, six of them were mixed CCs that have both males and females (although each gender study alone), three are males only and one was females only. According to the criteria of the chosen sample of CCs, which has been clarified previously. As a result, the comparison took place between the two groups of CCs that have only a single gender. Abha CC was the only female CC on the one hand (females) and Riyadh, Huraimila and Onaizah CCs were the males CCs on the other hand (males), in order to see whether they have any statistical significant differences between the two gender disparities or not. Therefore, the comparison was applied first between the whole sample (i.e. the three categories students, faculty and top managers) in each of the two groups. The second comparison was

between students in females CC and students in the males CCs. The third was between faculty in females CC with faculty in Males CCs. The fourth comparison between Top Managers in both groups was not applicable as there are only three on Males CCs and just one in female CC. in the following lines the results obtained by those comparisons

* The number (1) after each dimension stands for expectations, while the number (2) after each dimension stands for experiences.

1- A comparison between females and males for the whole sample

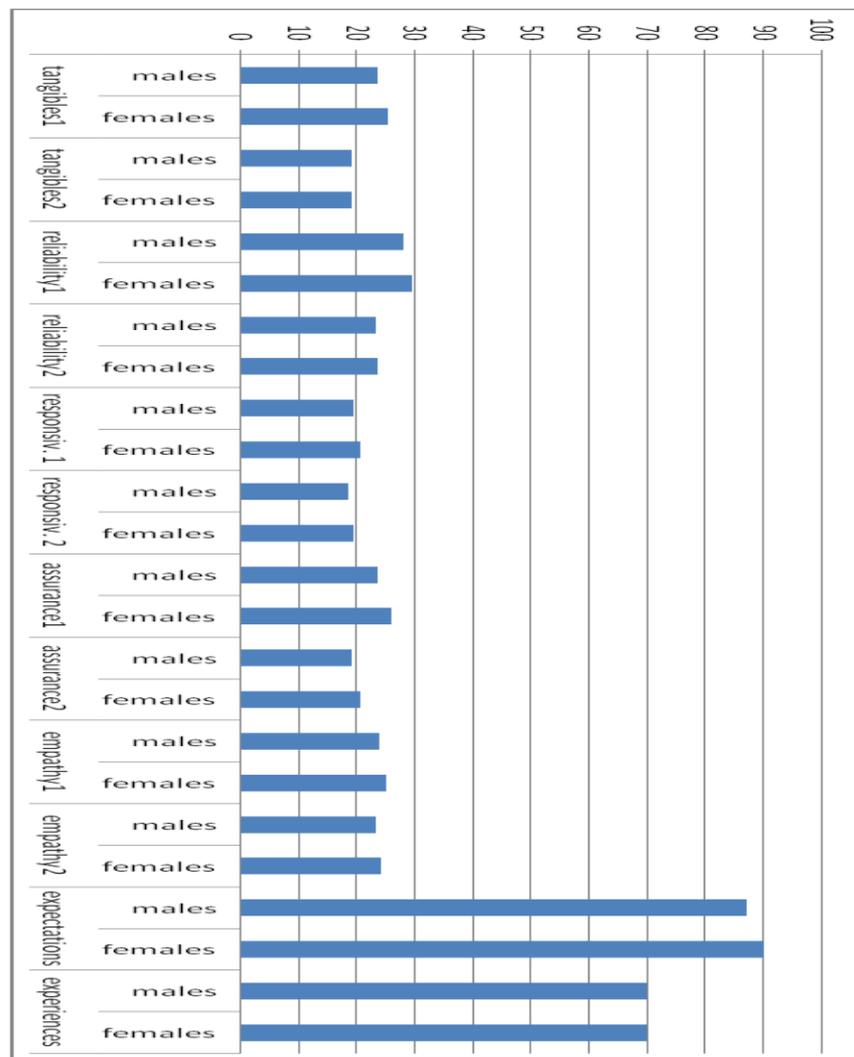


Figure 8: A comparison between Means of females and males for the whole sample.

It can be seen from the above figure that there are significant statistical differences between the two genders in dimensions: (tangibility1) and (assurance1) for the females while the other differences have no statistical significance. This means that the expectations of females in the two dimensions were higher than the males expectations.

2- A comparison between females and males for the students category

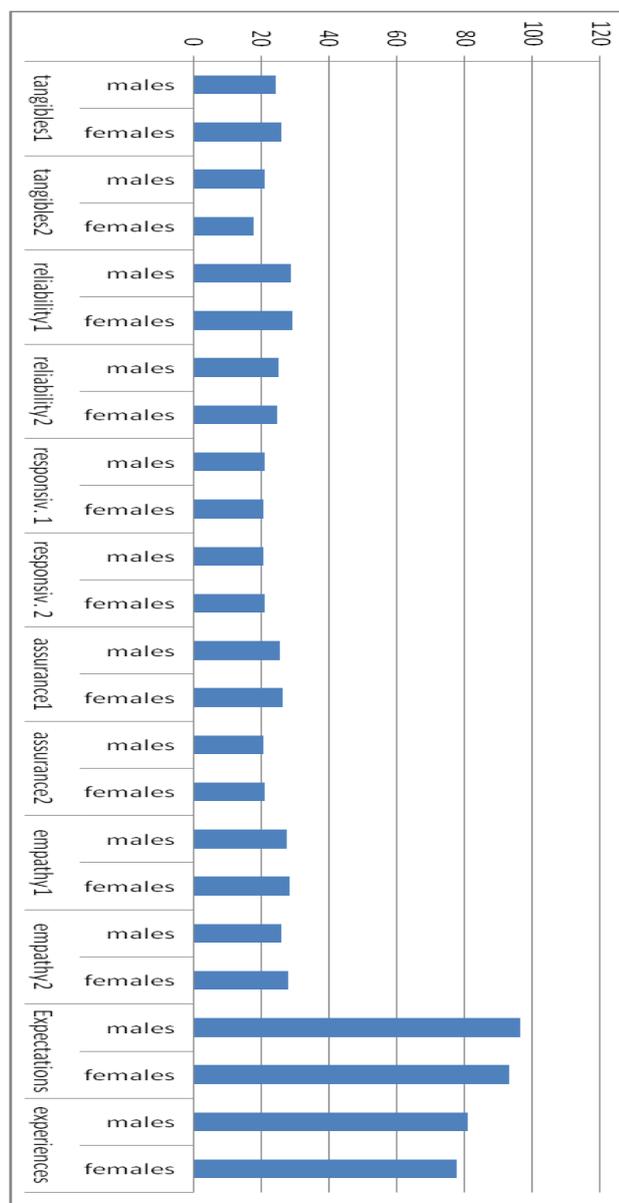


Figure 9: A comparison between Means of females and males from students perception

It can be seen from the above figure that there are significant statistical differences between male students and female students in tangibility experiences (tangibility2) for females. While all the other dimensions have no significant statistical differences. The gap between what females expect in Tangibility and what they experienced is larger than that of males. That means that male students environments in the Tangibility dimension are better than female students environment in the same dimension.

3- A comparison between females and males for the faculty category

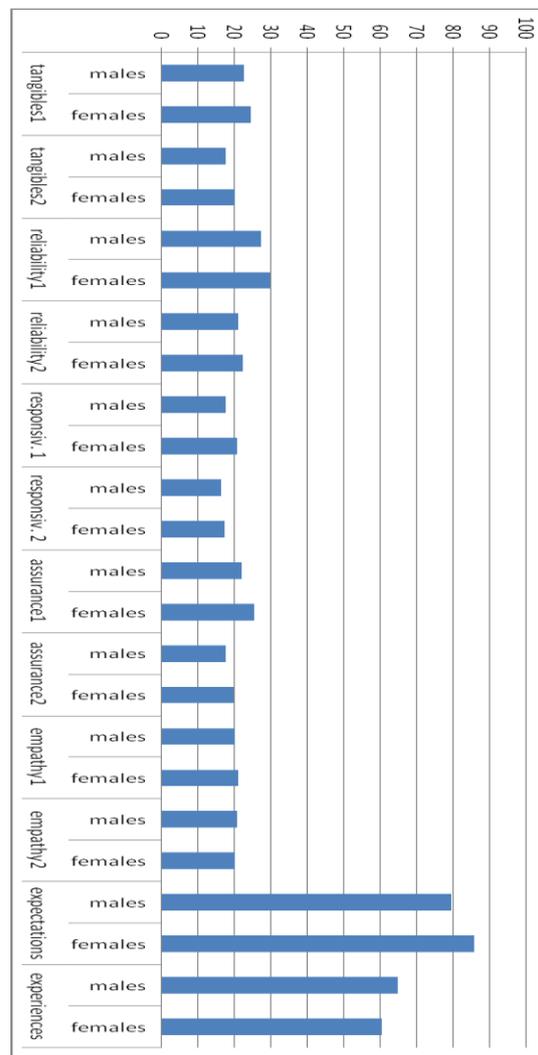


Figure 10: A comparison between Means of females and males for faculty



It can be seen from the above figure that there are significant statistical differences between faculty males and faculty females for females in the dimensions: Tangibility, reliability, responsiveness and assurance in the expectations, and Tangibility in the experiences. From that it is clear that faculty females expectations about services in their CCs in all the five dimensions of service quality were higher than those of faculty males. In the experiences, the only difference was also for females which was in their experiences in the dimension of Tangibility. These differences may show that faculty females are having higher expectations than faculty males.

5.2 Analysis and interpretation of the quantitative and qualitative data on QASs

Introduction:

The Faculty members questionnaires questions 23-52 together with the Top Managers and Faculty members' interviews essentially measure the extent to which Saudi community colleges commit themselves to the application of the eleven proposed standards for quality assurance and accreditation (QAS) of higher education institutions prepared by the National Commission for Academic Accreditation & Assessment (NCAAA, 2011).

These standards have identified eleven major areas of activity for Saudi post-secondary institutions for Institutional Accreditation in Higher Education, namely: (1) Mission, Goals and Objectives; (2) Governance and Administration; (3) Management of Quality Assurance; (4) Learning and Teaching; (5) Student Administration and Support Services; (6) Learning Resources; (7) Facilities and Equipment (Housing); (8) Financial Planning and Management; (9) Employment Processes; (10) Research; (11) Relationships with the Community.

Notably, the following research results are tackled under five major sections and a number of related sub-dimensions, namely: (1) Institutional Context (including Mission, Goals & Objectives; Governance

and Administration and Quality Assurance & Improvement); (2) Quality of Learning and Teaching (including Learning & Teaching); (3) Student Support (including Student Administration and Support Services and Learning Resources); (4) Supporting Infrastructure (including Facilities and Equipment (Housing); Financial Planning and Management and Employment Processes); and (5) Community Contributions (including Research and Institutional Relationships with Community).

Procedurally speaking, such standards were provided for the current research sample via administering a survey questionnaire to 160 faculty members (FM) and interviewing 9 community college Top Managers (TM) (taking into account the fact that the research population comprised ten subjects but only nine responded and agreed to participate) as well as five other FM. It's against such backdrop that the following figures contain statistical data analyzing participant FM' responses to the administered questionnaire questions, whereas further comments attempt to provide an in-depth qualitative analysis for such quantitative data based on interview question responses.

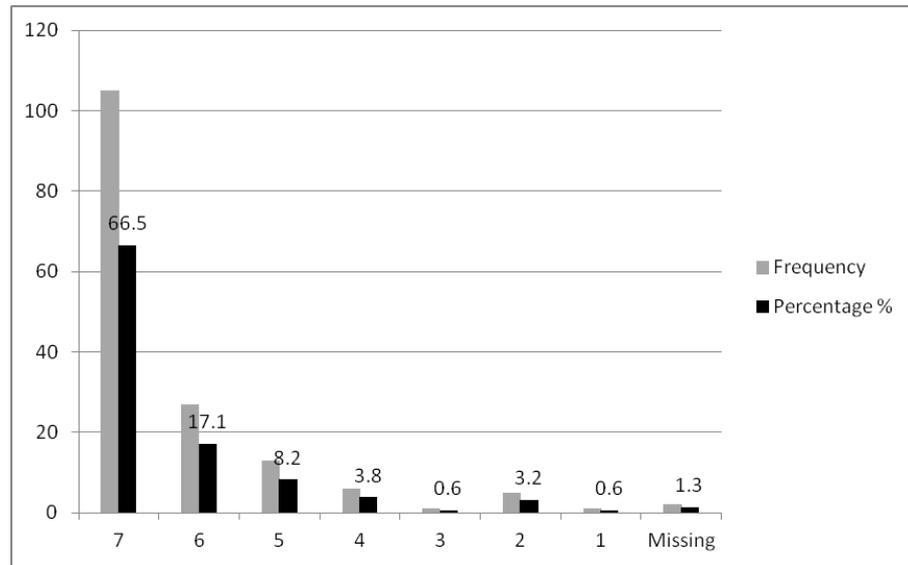
A summary of each standard is shown after the analysis of its related questions. All the negative questions were statistically dealt with before the analysis took place. So in order to have accurate results the scale of negative questions were revised (i.e. measured backwards (7 - 1 in the negative questions equals to 1 - 7 in positive questions). All the CCs scores on QAS are detailed in table (31) in Appendix (1).

Section I: Institutional Context

5.2.1 Standard 1: Mission, Goals and Objectives

This standard is composed of four sub-questions as follows:

5.2.1.1 My CC has its own mission, goals and objectives.



Mean: 6.33 Std. Deviation: 1.234

Figure 11: Responses of CCs mission, goals and objectives

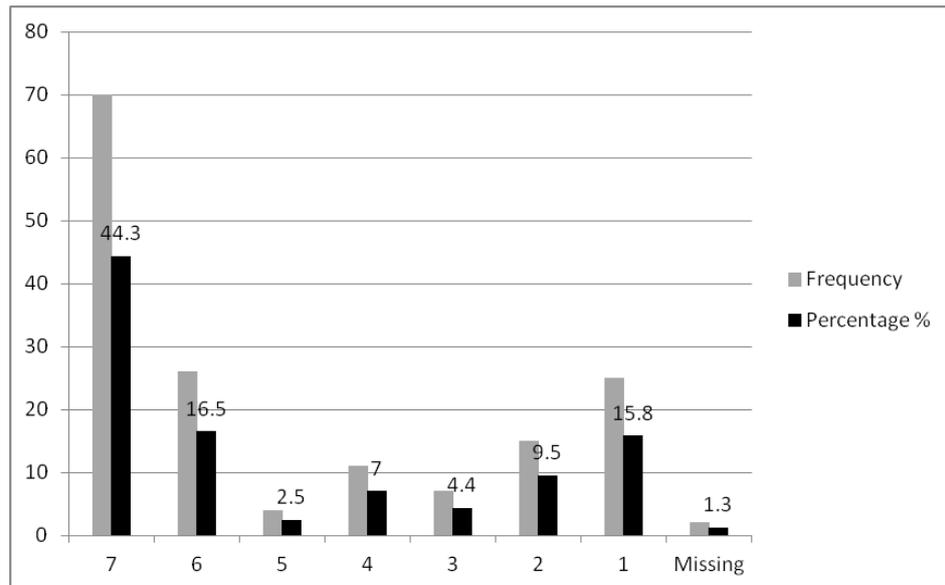
* NB: The above figure shows the 160 responses the question 23 yielded. The field "Missing" shows the percentage of the missing responses to that certain question out of the 160, while the scale numbers 7-1 show the percentage of that score out of the valid responses. i.e. The percentages acquired in the scales 7-1 equal 100% of the valid responses. This apply on the Figures 23-52 (Questions 23-52).

It is concluded from the above table that majority survey respondents (i.e. approximately 92% of total participant FM members choosing either 7, 6 or 5 scores at the used rating scale. The scale was 7 strongly agree while 1 was strongly disagree and 4 neutral. So the answers 5,6 and 7 means agree in general, while 1,2 and 3 means disagree in general also) highlighted that their CCs already have mission, goals and objectives, meanwhile all interviewed Top Managers (TM) and Faculty Members (FM) agreed to the item with the exception of Makkah CC whose Deputy Dean indicated its adoption of goals only, not objectives.

Overall, majority sample respondents reached a consensus on formulating mission, goals and objectives at their various CCs. However,

nearly 4% (i.e. participants choosing either 1, 2 or 3 scores at the used rating scale) expressed opposing opinions and another similar percentage provided neutral responses (i.e. choosing 4 score at the used rating scale).

5.2.1.2 My CC faculty members have never been involved in formulating such mission, goals and objectives.



Mean: 4.97 Std. Deviation: 2.367

Figure 12: Faculty participation in CCs planning processes

*NB: It should be mentioned here that all the negative questions of the questionnaires were dealt with in the SPSS data base, so the answers 5,6 and 7 agree to the positive meaning of the question (i.e. they were involved ..)

It is concluded from the above figure that around 63% of total surveyed respondents indicated their affiliated FM participation into formulating such mission, goals and objectives, the same results revealed by conducted interviews. In contrast, approximately 29% of the surveyed participants opposed such perspective, whereas 7% were neutral.

A case in point here is that a TM said “they (i.e. FM) and some Students also participated.” Another TM emphasized “without FM’ involvement, strategic plans become mere theories!” In addition, another

TM showed that FM “participated” (however at a certain level) mentioning at another context that such participation was “average”.

In a similar vein, an interviewed FM stated “certainly, they (i.e. FM) participated as part and parcel of status quo and as reliable human cadres able to give a helpful hand to accomplish our college mission and goals. In addition, our mission and goals were formulated by a specialist commission largely representing FM affiliated to all college departments”. An FM from Riyadh CC clarified that faculty members participate actively in the department level, while department chiefs represent their departments in the CC level.

5.2.1.3 My CC’s mission, goals, and objectives are appropriate for its current situation.

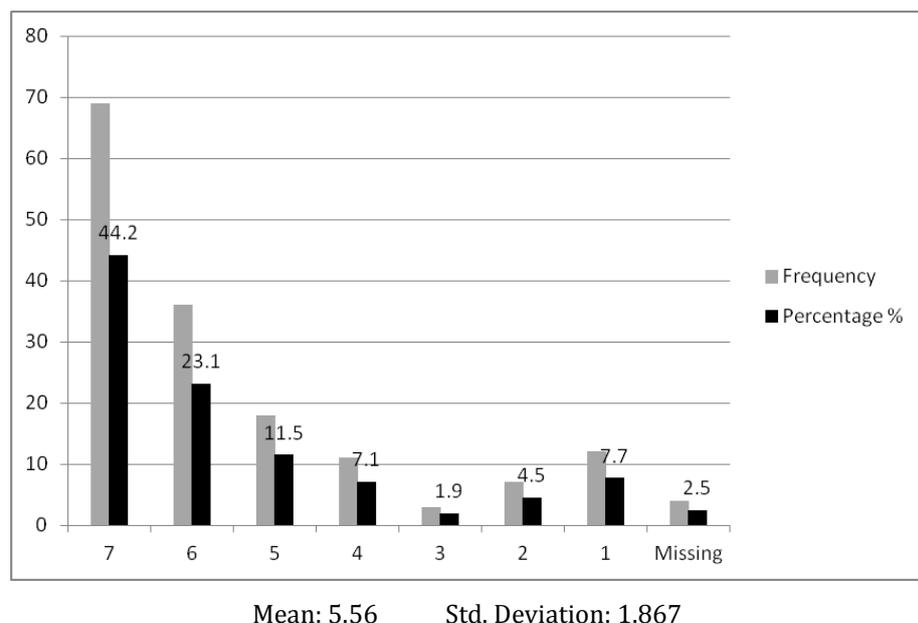


Figure 13: The relationship of CCs plans to their current situation

It is concluded from the above figure that 77% of total surveyed respondents indicated their affiliated FM think their CCs’ mission, goals, and objectives are appropriate for their current situation; meantime approximately 14% of total sample provided opposite perspectives and 7% were neutral. Notably, seven of the total eight interviewed TM showed that such statements are closely related to their colleges’ status quo.

However, only one TM (i.e. Makkah CC) stated they don't enjoy required relevance level "due to financial goals dominance over pure scholarly ones". In addition, interviewed FM also emphasized the presence of such relevance. FM from Jazan CC stated that their mission, goals, and objectives are very practical and closely linked with local labor market needs.

5.2.1.4 My CC's mission, goals, and objectives are not so much related to each other.

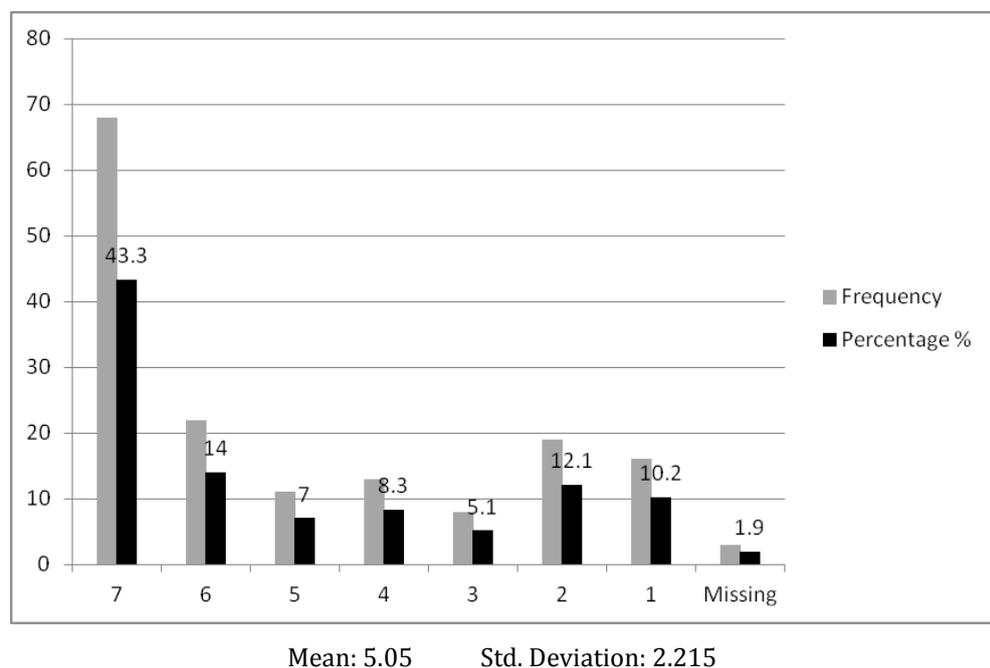


Figure 14: The interrelationship of the components of CCs plans

It is concluded from the above figure that 64% of total surveyed respondents highlighted that their CCs' mission, goals, and objectives are adequately related to each other, the same result evidenced by interviewed Top Managers who repeatedly showed they enjoy high relevance level and are, in fact, "related to each other." An interviewed TM said "we took a long time for their preparation taking into consideration the experiences of other counterpart Arab and foreign colleges."

A case in point here is that an interviewed TM from Makkah CC stated "although the correlation is evidenced, it may be relative. In other



words, the formulated mission statement is relatively ideal so that it doesn't enable implementers to accomplish via applied goals and objectives."

Also, interviewed FM expressed higher relevance rates as "our college's mission, goals and objectives were formulated following a comprehensive analysis for the status quo using SWOT Analysis", as highlighted by an interviewed TM.

In a similar vein, another interviewed TM stated "it's actually a close relationship. In other words, our college's mission is achievable and ready for implementation via a series of relevant goals, objectives and action plans." In contrast, approximately 27% of total sample provided opposite perspectives and 8% were neutral.

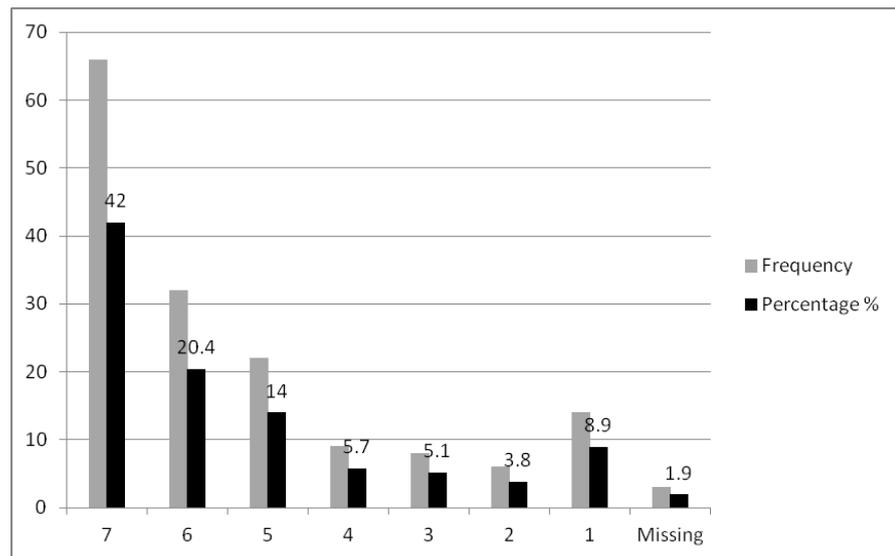
5.2.1.5 First Standard Results Summary

Overall results show that, Saudi CCs already have mission, goals and objectives that are so much related to each other and appropriate for their current situation at each individual college. In addition, results showed high level of effectiveness for FM' participation into their preparation. For example, an interviewed TM said "we took a long time for their preparation taking into consideration the experiences of other counterpart Arab and foreign colleges." In other side an interviewed TM from Makkah CC stated "although the correlation is evidenced, it may be relative. In other words, the formulated mission statement is relatively ideal so that it doesn't enable implementers to accomplish via applied goals and objectives". It can be said that they are well prepared but so much ideal.

5.2.2 Standard 2: Governance and Administration

This standard is composed of three sub-questions as follows:

5.2.2.1 My CC has a complete governing body that applies real leadership



Mean: 5.41 Std. Deviation: 1.942

Figure 15: The leadership of CCs governing body

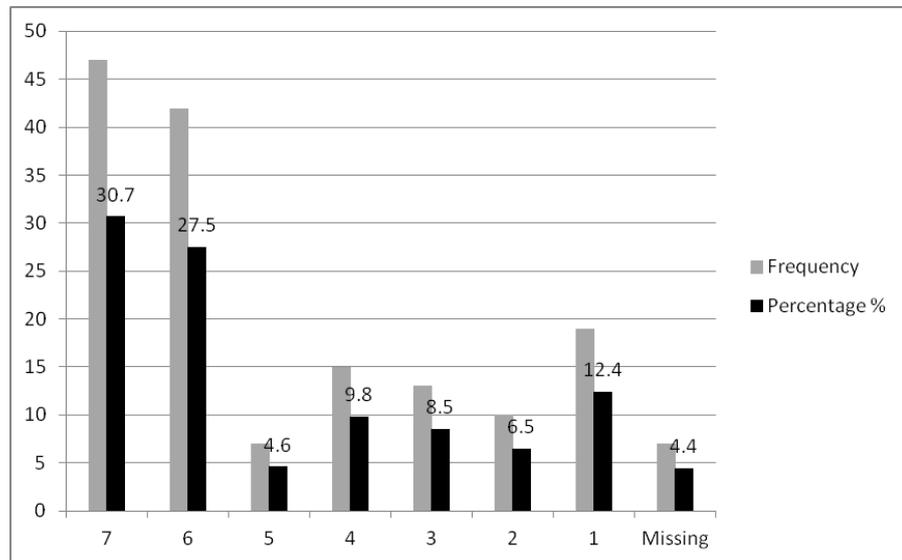
It's concluded from the above figure that 76% of total surveyed respondents stated that their CCs have complete governing bodies applying real leadership ethos. However, approximately 18% of total sample provided opposite viewpoints and 6% were neutral.

Notably, most of the total interviewed TM showed that their CCs enjoy effective governing bodies that always “take the initiative to solve problems”, “give a due care to construct communication channels with the labor market”, “take into consideration student and FM affairs” and “integrate with deans' roles”.

A case in point here is that an interviewed TM in Makkah CC stated his college governing body has average effectiveness. Moreover, another TM in Skaka CC indicated his college lacks a governing body.

Overall, interviewed FM agree with their counterpart TM that CCs' governing bodies are effective in carrying out their assigned roles and never contrast with colleges deanship roles.

5.2.2.2 Planning processes and policies are inadequately applied at my CC



Mean: 4.93 Std. Deviation: 2.131

Figure 16: The application of CCs planning processes

It's concluded from the above figure that approximately 63% of total surveyed respondents stated that their CCs planning processes and policies are adequately applied at their CCs; however, approximately 27% of total sample provided opposite viewpoints and 10% were neutral.

In a similar vein, interviews indicated there is a consensus among participant TM on optimal formulation on theoretical level. On the contrary, they agreed that the main problem is in implementation due to numerous causes, mostly internal; however, an interviewed TM considered such causes external in nature stating "there's a strong trend towards promoting the application of strategic and operational planning processes in an excellent manner, however, there're a plethora of obstacles for human and financial resources", "80% of the actual causes for improper results is attributed to the fact that there're external parties gives us a helpful hand in planning!", "practically speaking, planning succeeds in case of enjoying suitable support and implementation. Although some CCs may suffer from lack of support, Onaiza CC enjoys a relatively good support from the university". The TM in Jazan CC stated



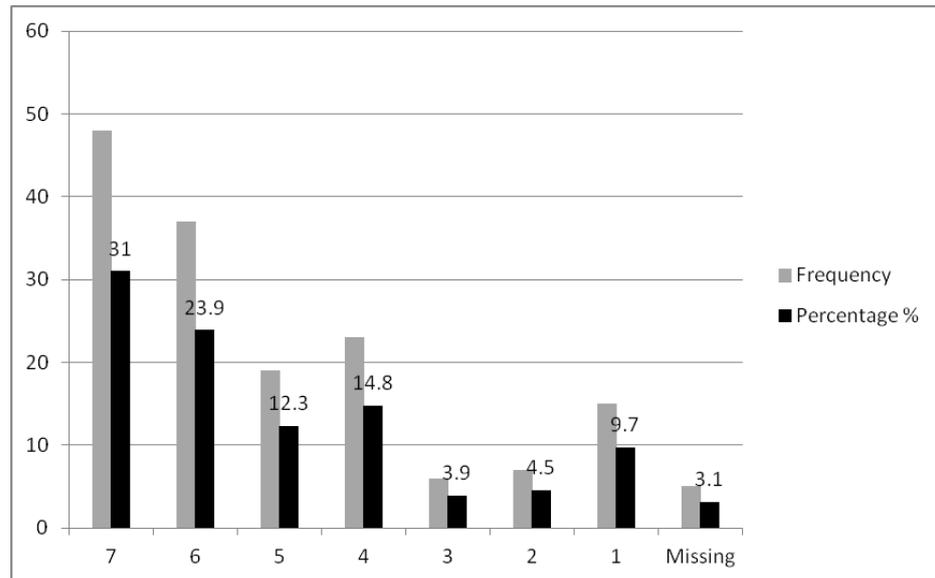
that: “our CC already has a declared and implemented strategic plan but I, personally, evaluate its effectiveness at 60% only due to lack of resources, financial dependency on the university and lack of qualified FM ” and finally the TM in Skaka clarified that they only apply “the usual plan at the start of every academic year.” In other words, there aren’t any plans of a strategic perspective. Instead, that CC adopts simple traditional plans that are largely similar to customary work agendas.

Notably, an interviewed TM in Makkah CC evaluated his CC’s plan as “above-average despite the fact that a long time elapsed since the initial start of planning some relevant issues”. In other words, he thinks exerted efforts in planning are inadequate following a long period of employing planning as a mechanism at his own college.

From another perspective, the Dean of Turaif CC stated his college has, in principle, sound and integrated planning. However, he feels it doesn’t actually contribute to accomplishing noticeable progress stating “we shouldn’t suppose that our college and its programmes are the only part to blame, but also external factors sometimes cause shortcomings.”

Furthermore, interviewed FM expressed similar opinions. For example, an academic staff frankly stated “we are still at the initial phases for bringing drawn development plans into existence”. Riyadh CC is an exception here, as its interviewed FM stated that their application of planning processes is excellent, relying on their CC achievement by having the American COE and the Saudi NCAAA accreditations, which made them –from his point of view- the best CC in Saudi Arabia.

5.2.2.3 My CC enjoys a very organized institutional context



Mean: 5.11 Std. Deviation: 1.936

Figure 17: The organization of CCs institutional context

From the above figure approximately 67% of total surveyed respondents stated that their CCs enjoy very organized institutional contexts. However, 18% of total sample provided opposite viewpoints and 15% were neutral.

Notably, interviewed TM emphasized their CCs already have organized institutional contexts whose quality evaluation level exceed 80% stating that the main obstacle hindering perfection is “dominant regulations and parties.”

A case in point here is that an interviewed TM said that the rationale for such high-quality evaluation stems from “administrative staff’s adequacy and sufficiency in addition to close monitoring of both graduates and students.”

In a similar vein, another TM in Onaiza CC stated that his college’s atmosphere is, in fact, attractive due to “incoming students belonging to other cities and regions, or even overseas students from other countries enrolled into some departments (e.g. the prestigious Medical Labs Department, highly-accredited from relevant official institutions, where students receive education in English)”.



In addition, another interviewed TM in Jazan CC stated that “the major reasons are mutual collaboration and team spirit.”

Noteworthy, another participant TM in Makkah CC reduced the quality estimated percentage to 65% only due to FM’s lack of collaboration and his college-affiliated deanship’s inability to provide them with suitable motivating incentives and rewards.

On the contrary, Turaif CC Dean assured the percentage is 100% as “everyone does his best completely carry out his assigned responsibilities in a comfortable healthy environment void of any administrative gaps or shortcomings.”

In a similar vein, interviewed FMs agreed that there is an organized institutional context in their CCs. For example, a participant FM from Tabouk CC evaluated quality level in his CC at 80% because of accomplishing “brilliant” successes recently rewarded by obtaining academic accreditation from the American-based Council on Occupational Education (COE) international body.

Besides, another FM indicated that the main rationale for obtaining such high percentage is the results concluded by female FM’ and employees’ annual surveys. Riyadh CC representative interviewee gave his CC 90% clarifying that it is impossible to reach 100% otherwise he would gave it to his CC due to its achievement.

5.2.2.4 Second Standard Results Summary:

The standard-related items basically focus on CCs’ Governance and Administration. As a result, they are closely related to the second standard of NCAAA’s eleven Standards.

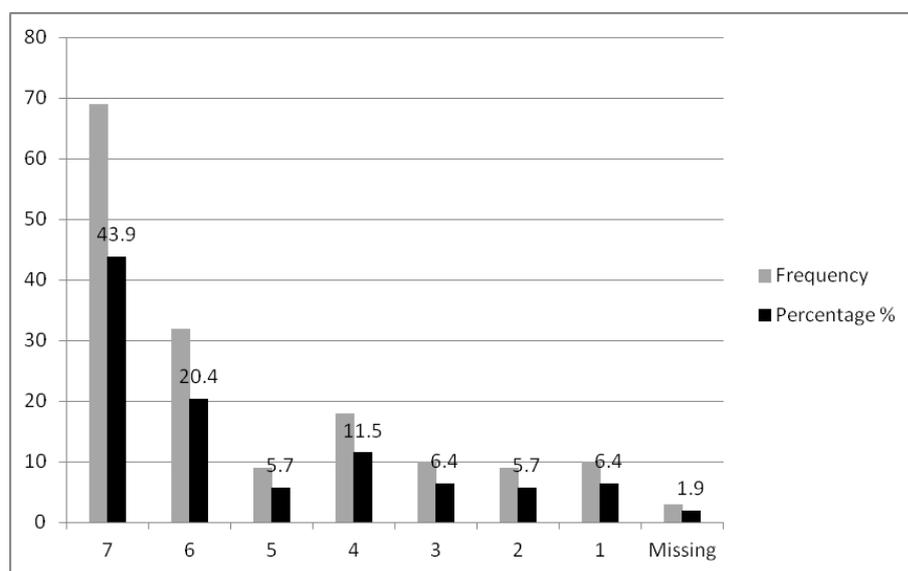
Saudi CCs already have active leadership preparing suitable strategic plans. However, there is semi-consensus that at the same time, they encounter obstacles in implementing these strategic plans actually as well as obtaining the desired results due to several causes: internal, external or both. An interviewed TM considered such causes external in nature stating “there’s a strong trend towards promoting the application

of strategic and operational planning processes in an excellent manner, however, there're a plethora of obstacles for human and financial resources". It can be said that they from another side are not logically connected to their context.

5.2.3 Standard 3: Quality Assurance and Improvement

This standard is composed of five sub-questions as follows:

5.2.3.1 My CC does not use documented quality assurance procedures for all key educational processes.



Mean: 5.41 Std. Deviation: 1.928

Figure 18: CCs use of documented quality assurance procedures

In the FM questionnaires responds shown above, approximately 70% of total surveyed respondents stated that their CCs use documented quality assurance procedures for all key educational processes. However, 18% of total sample provided opposite viewpoints and 12% were neutral.

Besides, interviewed TM provided insights about their high-level knowledge of quality standards and goals estimated at 75% in addition to their precise knowledge of relevant COE's international quality standards; however, they attributed the delay in standards provision for their CCs to their late provision since a month only despite the fact that they were formulated two years ago.



A case in point here is that an interviewed TM in Jazan CC stated that they don't precisely know the adopted standards or the exact number. Also, Madinah CC Dean indicated that they weren't informed about NCAAA's standards.

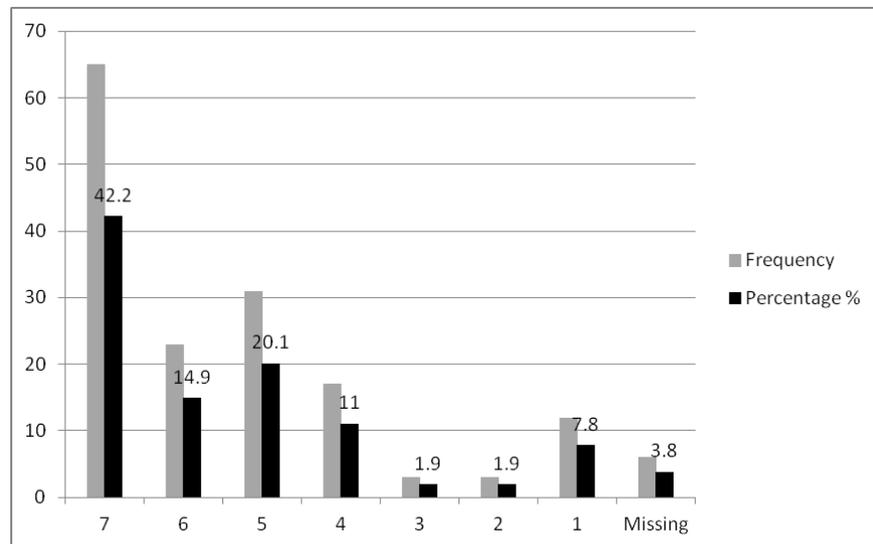
However, another college Dean of Skaka CC stated they have a Consultative Council for Quality and another unit for quality management.

In a similar vein, an interviewed TM from Makkah CC said his college has embarked into applying quality systems and achieved remarkable progress enabling it to apply for accreditation but for some simple obstacles they did not yet apply for it.

In addition, Turaif CC Dean indicated that he and his colleague the Deputy Dean had attended the First Conference for Quality, hold at Riyadh-based Al Yamamah University under the sponsorship of King Abdullah Bin Abdul-Aziz, and that they are currently making every possible effort to fulfill required quality standards according to their college's potentials and Dean's assigned authorities.

Furthermore, interviewed FMs showed their knowledge of required quality standards that are currently applied at their CCs on a wide scale. A case in point here is that a FM in Huraimila CC mentioned that his college has already obtained the COE international accreditation certificate. They mentioned that their CCs have a specialized unit or body for quality assurance.

5.2.3.2 My CC always uses documented indicators and/or benchmarks for internal quality evaluation of educational performance (e.g. pass rates, course assessment stats).



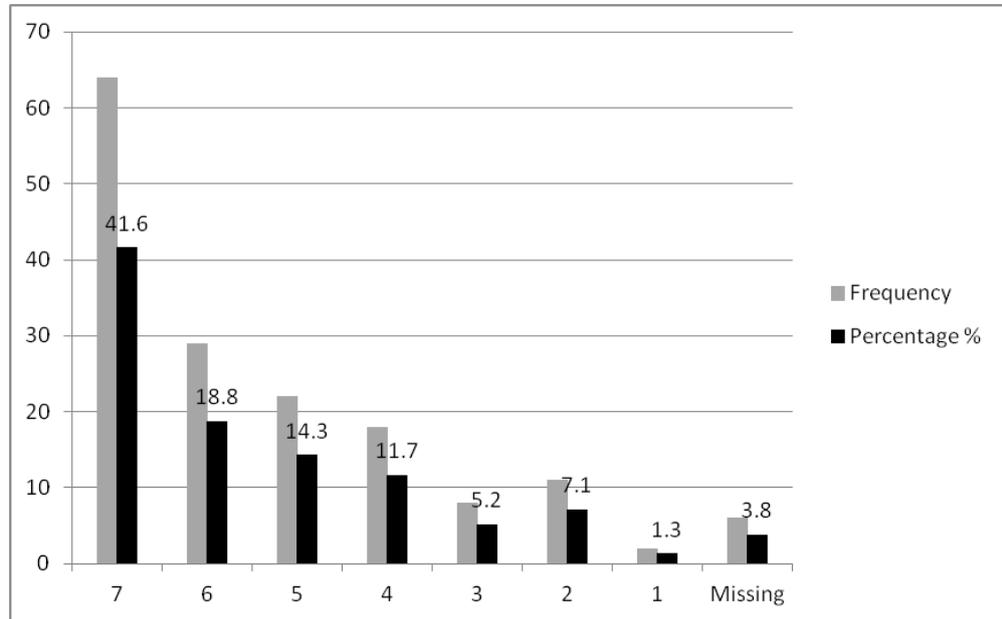
Mean: 5.47 Std. Deviation: 1.801

Figure 19: CCs internal quality evaluation of educational performance

It's concluded from the above figure that approximately 77% of total surveyed FM respondents stated that their CCs always uses documented indicators and/or benchmarks for internal quality evaluation of educational performance.

However, approximately 12% of total sample provided opposite viewpoints and 11% were neutral (Note: answer details supported by interview excerpts would be mentioned at the current standard next fourth sub-question).

5.2.3.3 My CC regularly uses a formal process for identifying and solving quality problems in its educational provision (e.g. annual course review).



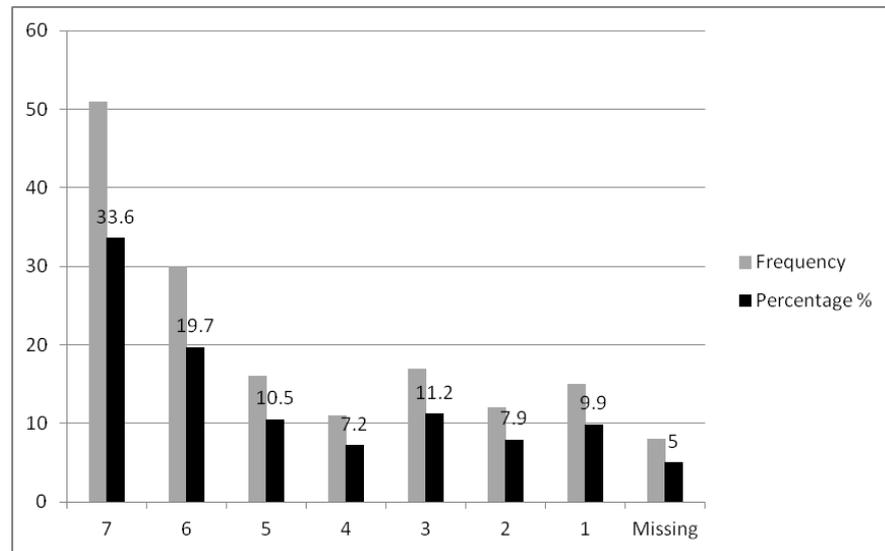
Mean: 5.53 Std. Deviation: 1.661

Figure 20: CCs use of formal process for identifying and solving quality problems in its educational provision

It's concluded from the above figure that approximately 74.6% of total surveyed respondents stated that their CCs regularly use formal processes for identifying and solving quality problems in their educational services provision (e.g. annual course review).

However, approximately 13.6% of total sample provided opposite perspectives and another approximately 11.7% were neutral (Note: answer details supported by interview excerpts would be mentioned at the current standard next fourth sub-question).

5.2.3.4 My CC never evaluates its key educational performance measures against external benchmarks.



Mean: 4.94 Std. Deviation: 2.091

Figure 21: CCs evaluation of key educational performance measures against external benchmarks

From the above figure it is concluded that approximately 64% of total surveyed FM respondents stated that their CCs evaluate key educational performance measures against external benchmarks. However, 29% of total sample provided opposite perspectives and another 7% were neutral.

For all the above-mentioned three questions and relevant interviews conducted with participant TM; Madinah CC Dean showed that adopted performance measures are still in their initial stages of implementation that are largely hindered by other basic problems such as lack of study halls, premises, infrastructure, supplies, etc. As a result, such existing conditions negatively affect quality proper conceptualization and relevant standards application. Notably, despite all such obstacles, the college has recently embarked into intensive communications with COE officials to obtain required academic accreditation for their adopted standards at the same time we notice weak communication and coordination between NCAAA and their affiliated CCs.



On the other side, remaining interviewed TM emphasized there's remarkable progress in quality. A case in point here is that a participant TM in Onaiza CC highlighted that "we had fixed a schedule with COE officials to visit us for obtaining the required academic accreditation status. Also, our university-affiliated Quality and Accreditation Agency would visit the college for the same reason". Notably, the same conditions for COE accreditation also apply for Jazan CC.

In a similar vein, the Dean of Skaka CC stated that they enjoy a "very good" level for quality implementation and performance. However, Turaif CC Dean surpassed such level emphasizing that

"our college has a very advanced level comparable with other counterpart CCs in both United States and Canada in our academic accomplishments, programmes, performance, quality and fulfillment of teaching requirements. As a result, we have an advanced system for quality implementation. However, we are negatively affected by an unsuitable overall format for external stakeholders and unfair requirement burdens for compelling reasons. For example, our college occupies rented premises. In addition, we can't control our financial resources and budget".

Also, interviewed TM concluded that each examined CC has an electronic database monitored by relevant Quality and Academic Accreditation Units except for Abha CC that recently started its ongoing record and data audit efforts by its Statistics Unit at the same time the college showed an interest in constructing an integrated database.

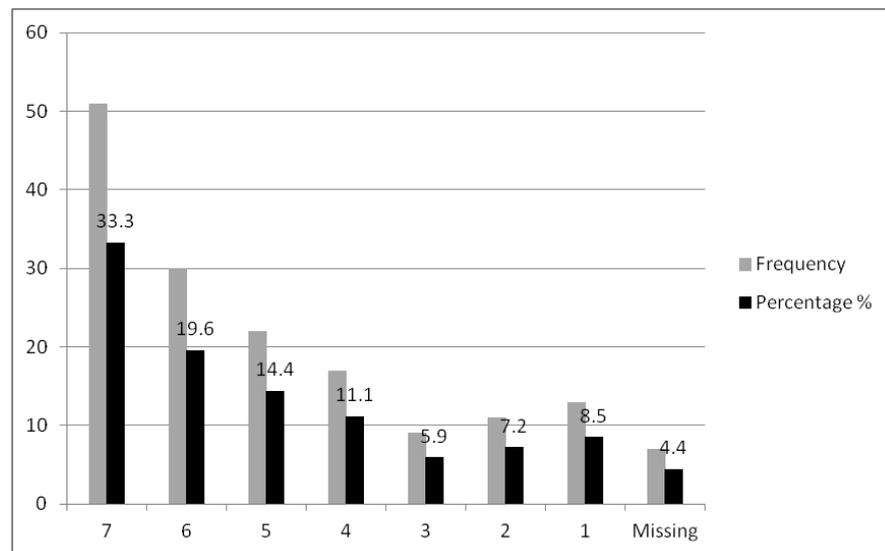
Moreover, the Dean of Turaif CC indicated that traditional data archiving and tabulation operations, which they carry out in an efficient manner, are still adopted at present due to lack of an independent database separate from the university.

For interviewed FMs , results showed that they agree with their colleague TMs that their CCs are currently applying required quality standards. A case in point here is that a participant FM in Tabouk CC stated that his college has already obtained the COE-based international

accreditation status; meanwhile they seek applying for the local NCAAA accreditation (taking into account the fact that both are external benchmarks for CCs' performance evaluation).

In addition, interviewed FM also assured their CCs apply advanced data archiving and tabulation operations. A case in point here is that a FM in Tabouk CC indicated that his college adopts a precise clear mechanism for records archiving via specialized committees, e.g. Academic Affairs, Development and Quality as well as Student Affairs Committees. Also, another FM from Abha CC showed that hers FM - affiliated Quality Unit pays a due care to constructing an integrated database for the entire college. The case in Riyadh CC is better as they have an accredited quality unit that has all the data and reports that is needed in the development and improvement processes.

5.2.3.5 My CC is committed to managing its projects according to quality standards.



Mean: 5.08 Std. Deviation: 1.975

Figure 22: Responses on managing projects according to quality standards

It's concluded from the above figure that 67% of total surveyed FM respondents stated that their CCs are committed to managing their projects according to quality standards. However, approximately 22% of total sample provided opposite perspectives and another 11% were neutral.



In a similar vein, an interviewed TM in Abha CC showed that there's no actual project management committed to the scientific meaning of the term. Instead, the Governance and Administration is assigned project management tasks that are usually well-accomplished but without adherence to relevant standardized scientific principles.

However, the Dean of Madinah CC stated that project management is practiced at university, not college level. He went on to say that "we often inform our university administration of our needs so that officials can examine the status quo and take required measures for implementation".

In addition, interviewed FM also expressed similar opinions. For example, a participant FM from Tabouk CC stated that there's always a continuous monitoring for programmes implementation and evaluation by the college-affiliated Consultative Committee "represented by industry and business employers in addition to administering other evaluative survey questionnaires on FM, administrators and students". The same could be said about Riyadh CC according to its participating FM who mentioned that they in addition have a specialized department headed by a Dean's deputy in their CC for that concern.

Notably, the two cases are the most distinguished experiments for implementing quality standards at examined CCs according to study results.

5.2.3.6 Third Standard Results Summary:

The standard-related items basically focus on CCs' Quality Assurance and Improvement. As a result, they are closely related to the third standard of NCAAA: Quality Assurance and Improvement.

Saudi CCs largely adopt quality mechanisms, document quality assurance guidelines for all key educational processes, always use documented indicators and/or benchmarks for internal quality evaluation of educational performance (e.g. pass rates, course assessment stats), regularly use formal processes for identifying and

solving quality problems in their educational provision (e.g. annual course review), evaluate their key educational performance measures against external benchmarks, committed to managing their academic projects according to quality standards and are, finally, managing their projects well but not in the scientific meaning of the word. Overall, results indicated a very good level of commitment to quality standards in the formulation and preparation and lower than that in practical implementation. For example, the TM in Abha CC stated that the “adherence level to quality in theory reaches a maximum 90% as the college provides training and outreach for all FM, at the same time 50% of the Deputy Dean’s efforts are dedicated only to quality. However, final implementation on the ground doesn’t, at best, exceed 60% because of negative cultural barriers”.

Besides, another Deputy Dean in Onaiza CC showed his CC’s interest and correspondence with COE officials to obtain its accreditation following standards application. Noteworthy, such current interest in practical implementation and quality standards started few years ago, even since the last year only at some colleges.

However, despite such ongoing endeavor seeking both local and international accreditation, some CCs adopt traditional techniques for quality management as the case in Jazan CC. This result may be attributed to lack of effective mechanisms for decision making and autonomy, as highlighted by an interviewed Makkah CC TM.

Sometimes, quality application may reach a high level as indicated by the Dean of Turaif CC who stated “Turaif CC is considered more advanced than its affiliated university in quality standards implementation” or even a pioneering level at national Saudi level as indicated by an interviewed FM from Riyadh CC and Tabouk CC who emphasized that the implementation efforts at their CCs have already reached “the highest possible level making them the most pioneering CCs in the kingdom”, the same opinion repeated by interviewed FM at

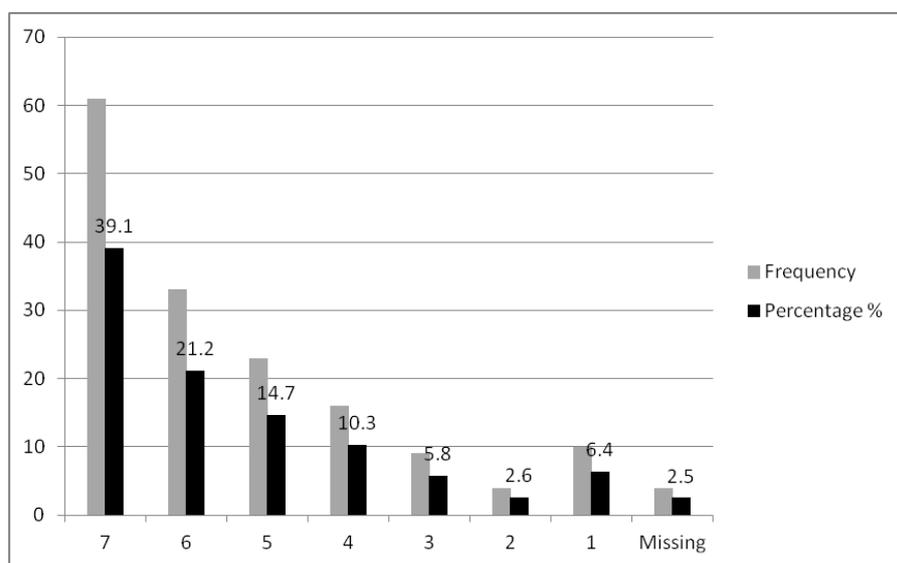
Huraimila CC that has recently obtained the COE accreditation certificate and applied for national accreditation for quality.

Section II: Quality of Learning and Teaching

5.2.4 Standard 4: Learning and Teaching

This standard is composed of three sub-questions as follows:

5.2.4.1 My CC is applying institutional monitoring and development of learning processes.



Mean: 5.44 Std. Deviation: 1.786

Figure 23: CCs application of institutional monitoring and development of learning processes

75% of total surveyed FM respondents stated that their CCs are applying institutional monitoring and development of learning processes. However, approximately 15% of total sample provided opposite perspectives and another 10% were neutral.

Overall, interviewed TM from Abha CC revealed there's a continuous monitoring and development for various learning processes, including "FM, students and curriculum" despite some hindering obstacles. Also, they indicated that "FM are efficient and enjoy good quality. However, curriculum are officially set by the university but (we) benefit from Blackboard support". In addition, interviewed TM also think that education development can be accomplished via promoting FM

capacities using such tools as training and professional development before assigning required tasks (e.g. Abha CC) or on service training by universities and their affiliated CCs.

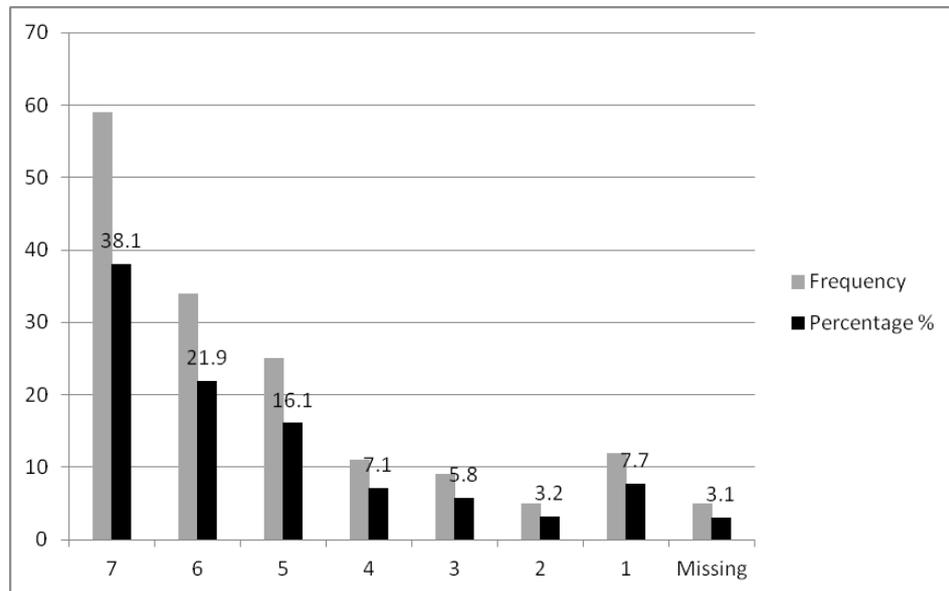
Notably, some CCs showed weak levels of institutional monitoring and development of learning processes, as illustrated by Jazan CC TM stating “unfortunately, there’s no adequate professional development at present”. Also, they illustrated that monitoring is procedurally carried out via monitoring achievement results and obtaining students’ feedback.

Makkah CC TM stated that his affiliated university’s centralization in academic programmes and syllabuses selection weakens institutional development efforts made by the CC.

Also, there seems a complete consensus among participant TM on the pivotal significance of such role as highlighted, for example, by the Dean of Turaif CC who indicated “it’s our major essential business”. In addition, the Dean of Madinah CC mentioned that his CC conducts a comprehensive evaluation for the educational system depending on students’ feedback.

Regarding the learning process, interviewed TM indicated there’s an interest in both traditional and e-learning. A case in point here is that the TM in Abha CC stated “there is an ongoing focus on learning, especially e-learning (i.e. Blackboard), pressures by the college’s administration towards that direction, internal and external training, consultations as well as good implementation levels”. They illustrated also that there is a Vice-Dean dedicated for educational and academic affairs at each CC in KSA. At the same time some colleges pay a due care to encouraging students to promote required learning and mastery skills like what happening in Turaif CC. The interviewed FM shared the same opinions with their TM counterparts. In addition, the FM from Riyadh CC mentioned that they use a learning system called LMS which was provided from King Saud University to all its affiliated colleges.

5.2.4.2 My CC is adequately monitoring and evaluating students' learning outcomes



Mean: 5.39 Std. Deviation: 1.856

Figure 24: CCs monitoring and evaluation of students' learning outcomes

From the above figure 76% of total surveyed FM clarified that their CCs are adequately monitoring and evaluating students' learning outcomes. However, approximately 17% of total sample provided opposite perspectives and another 7% were neutral.

However, interviewed TM expressed an overall different perspective as the majority emphasized their CCs suffers from weak performance, unsatisfactory limited efforts in this regard as CCs' role usually ends with students' graduation so they rarely follow their employment in the labor market and measure the employers satisfaction.

Notably, the reason behind that may be attributed to what has been mentioned by Makkah CC TM who indicated that his CC's outcomes have recently shown a crisis due to employment stakeholders' unclear vision".

However, there was an exception for such rule expressed by the Dean of Madinah CC who emphasized "we have an alumni unit communicating with graduates and their employers." In addition to what

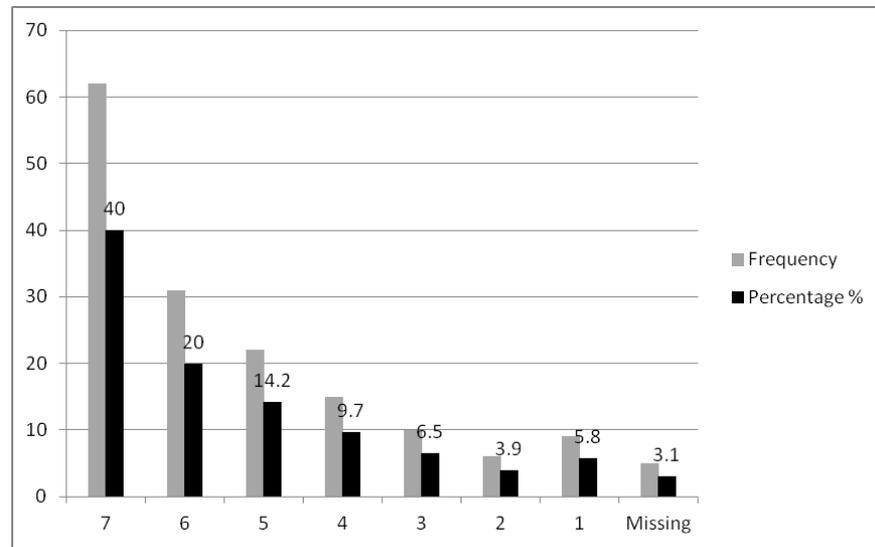
Onaiza CC TM said that their students enjoy good reputation at the university level, compared to other counterpart colleges.

During the interviews, a FM from Tabouk CC highlighted the detailed admirable business carried out by his CC saying “we monitor continuous statistics for students’ academic achievement at various courses separately and at their academic progress in each level cumulatively. Then, we administer survey questionnaires to students to evaluate different teaching methods, educational technology tools, internal environment and courses evaluation. In addition, other questionnaires are directed to employers to evaluate various academic programmes, syllabuses and outcomes in tandem with the requirements of the labor market”. Nearly the same was mentioned by Riyadh CC FM.

The Abha CC FM member clarified that they conduct opinion surveys for relevant employers, stakeholders and their female graduates. However, based on the notes made by another counterpart TM at the same CC, we conclude that the practical implementation of such tools in Abha CC is still unsatisfactory.

Overall, it can be concluded that CCs monitor and evaluate students’ learning outcomes both during and after their study period. However, they suffer from a weak level for actual implementation on the ground.

5.2.4.3 My CC is applying ongoing development of its learning and teaching programmes.



Mean: 5.43 Std. Deviation: 1.809

Figure 25: CCs application of ongoing development of their learning and teaching programmes

74% of total surveyed FM respondents clarified that their CCs are applying ongoing development of their learning and teaching programmes. However, 16% of total sample provided opposite perspectives and another approximately 10% were neutral.

Interviewed TM clarified that sometimes CCs receive some support for learning (e.g. Blackboard, Smart Boards as well as academic and counseling support). Also, sometimes students receive training support, as highlighted by the Dean of Turaif CC who stated “each course focuses on training students at relevant required skills, thus, there’s no room at all for theoretical educational issues”. For teaching, FM receive training internally and externally via those training programmes provided by their affiliated CCs and universities.

In the interviews with FM, participants highlighted their agreement with their counterpart TM further adding that their CCs render another related service for students by providing them with textbooks for low prices to enhance their learning.

Finally, another FM in Huraimila CC indicated that they “send some students during the summer vacation to study English Language at



the United States on the CC's expenses as part of its twinning program with a counterpart American CC". Also, interviewed FM supported TM opinions about the development of teaching programmes.

5.2.4.4 Fourth Standard Results Summary:

The standard-related items basically focus on NCAAA' forth standard: Learning and Teaching.

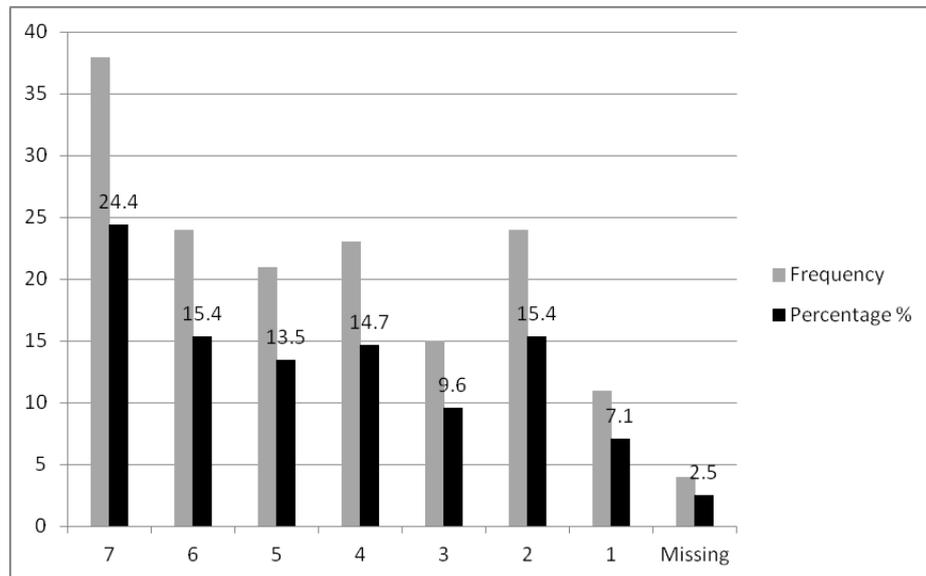
Saudi CCs largely are applying institutional monitoring and development of learning processes (despite some barriers), adequately monitor and evaluate students' learning outcomes using available e-learning tools and apply ongoing development of their learning and teaching programmes (despite some weaknesses in CCs' infrastructure). In addition, it can be concluded that Saudi CCs monitor and evaluate students' learning outcomes both during and after their study period. However, they suffer from a weak level for actual implementation on the ground. For teaching development, results revealed that FM receive internal and external development provided by their affiliated CCs and universities.

Section III: Student Support

5.2.5 Standard 5: Student Administration and Support Services

This standard is composed of two sub-questions as follows:

5.2.5.1 My CC is applying medical and social services effectively.



Mean: 4.56 Std. Deviation: 2.001

Figure 26: CCs application of medical and social services

In applying medical and social services 53% of surveyed FM stated that they are applied in their CCs effectively, while 32% of total sample provided opposite perspectives and another approximately 15% were neutral.

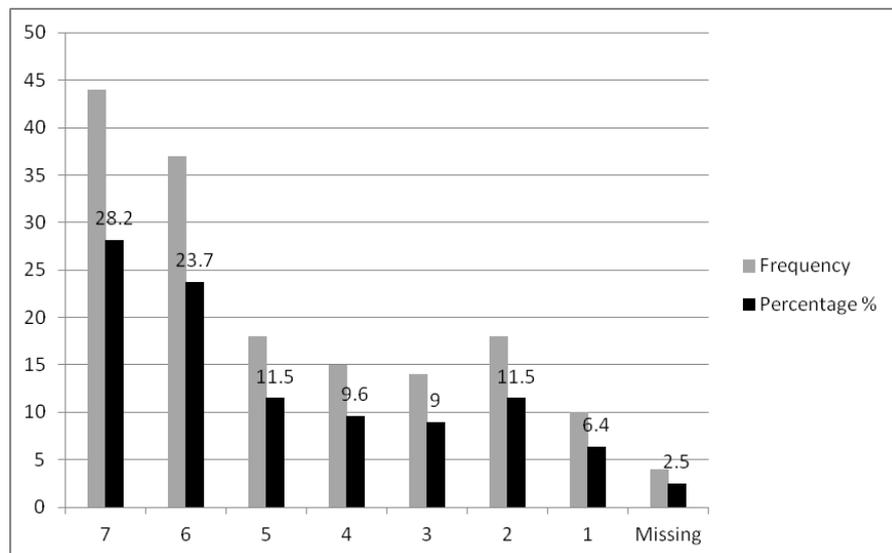
Notably, interviewed TM stated that their CCs don't provide adequate medical services. Instead, they usually adopt the referrals mechanism allowing students to receive required medical treatment at university hospitals, if any, or at any public hospital at various nearby towns or cities. However, two exception for such rule were in Abha CC and Riyadh CC which have first aid clinics for students and faculty. In a similar vein, we can consider Turaif CC's experiment the most significant in this regard, as expressed by its Dean who said "we refer those cases needing specialized medical care to Turaif Public Hospital. Noteworthy, our CC has an internal unit for pregnancy and diabetics care".

In comparison, social services enjoy a better status as some CCs have social services or counseling units providing students with required assistance and support as well as continuous communication.

Notably, Madinah CC has a unique initiative in providing its students with high-quality social services reaching the 90% level, as indicated by its Dean who stated that the main reasons are that “we have specialized units for student affairs, adequate supplies and high-level of students’ participation”. The same perspective repeatedly mentioned by interviewed FM.

Finally, results also concluded that student affairs administrations are present at all CCs and enjoy high-level practical roles.

5.2.5.2 My CC is not applying student extracurricular activities effectively.



Mean: 4.92 Std. Deviation: 1.976

Figure 27: CCs application of student extracurricular activities

63.5% of total surveyed FM respondents see that their CCs are applying student extracurricular activities effectively. However, 27% of total sample provided opposite perspectives and another approximately 9.5% were neutral.

Notably, interviewed TM generally clarified that CCs’ student extracurricular activities are conducted either by CCs themselves using their own programmes or by the university and its central students activity programmes.

Overall, participants emphasized that student extracurricular activities are carried out in adequate manner. A case in point here is that

there is a student club for practicing student extracurricular activities at Jazan CC. In addition, Onaiza CC itself monitors student extracurricular activities at the same time they receive effective support from their university.

As noted earlier, Madinah CC already provides students with high-quality social services reaching the 90% level, as indicated by its Dean who stated that the main reasons are that “we have specialized units for student affairs, adequate supplies and high-level students’ participation”.

The same opinion is also expressed by interviewed FM. However, there’s only one exception at Huraimila CC whose FM showed that “there were student extracurricular activities in the past, but not now” stating that the main reason is that the majority of students come from outside Huraimila City. Following the end of their lectures, they immediately return to their neighboring towns and villages so they find it difficult either to stay until activities start or to return again at the same time to participate in those activities. As a result, since the recent decrease in Huraimila City native students’ number, student extracurricular activities became extremely limited.

5.2.5.3 Fifth Standard Results Summary:

The standard-related items basically focus on CCs’ Student Administration and Support Services (i.e. student affairs and support, medical and social services as well as student extracurricular activities).

Saudi CCs mostly don’t provide medical services. Instead, they usually adopt the referrals mechanism allowing students to receive required medical treatment at university hospitals, if any, or at any public hospital at various nearby towns or cities, with the only exception of Abha CC that has a first aid clinic and Turaif CC’s which has an internal unit for pregnancy and diabetics care.

However, results showed that social services are provided by Saudi CCs in an adequate manner. In addition, approximately two-third

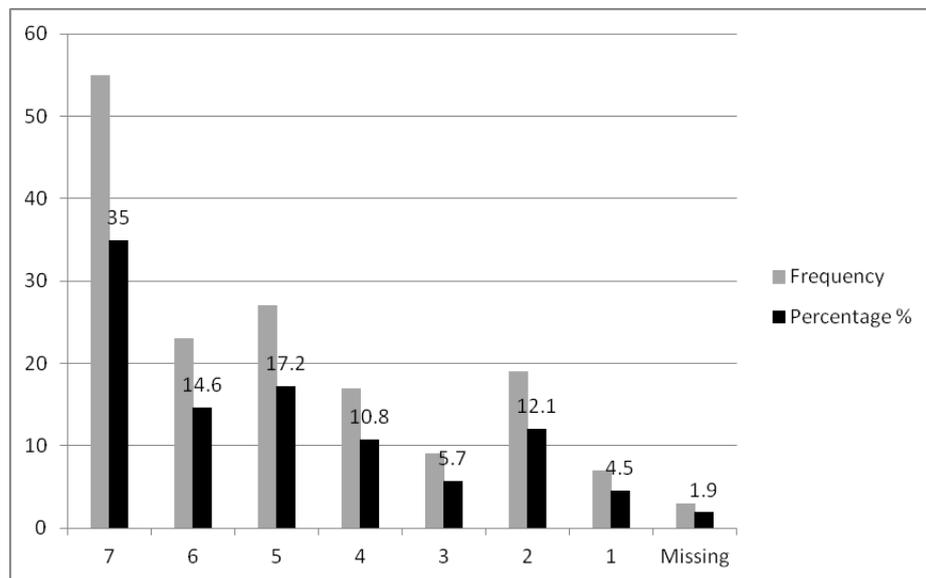
respondents stated that student services are effectively applied, either those provided at the university's central level or internally by their affiliated CCs.

Noteworthy, it's important here to mention that majority participants only indicated the mere presence of such student extracurricular activities without identifying the actual number of practicing students. As a result, a certain activity may be in effect at a CC without mentioning its actual participants that may be very limited (this was noticed from the researcher's personal experiences and observations of Saudi CCs and other counterpart educational institutions).

5.2.6 Standard 6: Learning Resources

This standard is composed of two sub-questions as follows:

5.2.6.1 My CC is providing effective learning resources for its students and faculty.



Mean: 5.08 Std. Deviation: 1.925

Figure 28: CCs provision of effective learning resources for its students and faculty

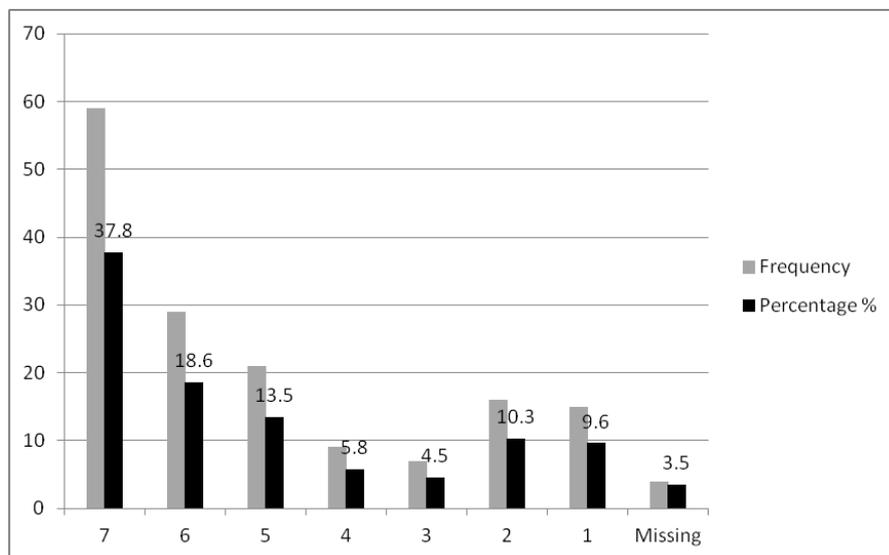
From the above figure 67% of total surveyed respondents stated that their CCs are providing effective learning resources for their students and FM. However, 22% of total sample provided opposite perspectives and another 11% were neutral.

In a similar vein, interviewed TM emphasized the adoption of e-learning with its various forms and tools (Blackboard use in Abha CC for example). Also, the majority of participants agreed that there're libraries equipped with necessary references, despite some shortcomings in scholarly and recently published references provision.

In addition, there was also another consensus that majority CCs' students and FM alike have accessible Internet-based international databases, computerized learning systems (LMS for example in Riyadh CC), printing press houses and libraries. Also, computers, Data Show projectors and required software are already available at all study halls at the same time most CCs provide all their FM with computers and its other accessories.

The interviewed FM agrees with their TM in all those above-mentioned perspectives.

5.2.6.2 When developing its learning resources, my CC does not consult its students or faculty members .



Mean: 5.10 Std. Deviation: 2.101

Figure 29: CCs consultation of their students and faculty when developing their learning resources

70% of total surveyed FM respondents stated that their CCs consult students or FM when developing their learning resources.

However, 24% of total sample provided opposite perspectives and 6% were neutral according to the table above.

Besides, interviewed TM highlighted the pivotal significance of learning resources for Student and FM alike from one hand and consulting them on their selection, particularly the FM, on the other hand stressing their actual implementation of such principles at their CCs.

For example, the Dean of Turaif CC assured the importance of these notions stating “of course, (they are) the basic foundation of our system. But for them, our business couldn’t go as pre-stipulated in our drawn plan”.

In a similar vein, interviewed FM expressed similar opinions. For example, a participant FM from Tabouk CC spoke about their adopted mechanism for developing learning resources in consultation with Students saying that they are often developed based on the survey questionnaires targeting both Students and FM with the aim of evaluating current learning resources as well as the necessity to update or provide other new resources. Also, he stated that his CC conducts biannual evaluations whose results are communicated to the administration at the end of every academic year.

From another perspective, the interviewed FM from Huraimila CC provided an opposing opinion stressing the fact that his CC lacks consultation with Students and FM in this concern.

In addition, another FM from Abha CC emphasized the pivotal significance of administration’s wide-scale support for both Students and FM enabling them to make the utmost use of available learning tools and techniques. The same could be said regarding Jazan CC and Riyadh CC as mentioned by their representative FMs.

5.2.6.3 Sixth Standard Results Summary:

The standard-related items basically focus on CCs’ Learning Resources. Overall, majority survey responses indicated Saudi CCs mostly stress the pivotal significance of providing effective learning

resources and consultation with FM and Students about the best mechanisms for updating or providing other new required resources.

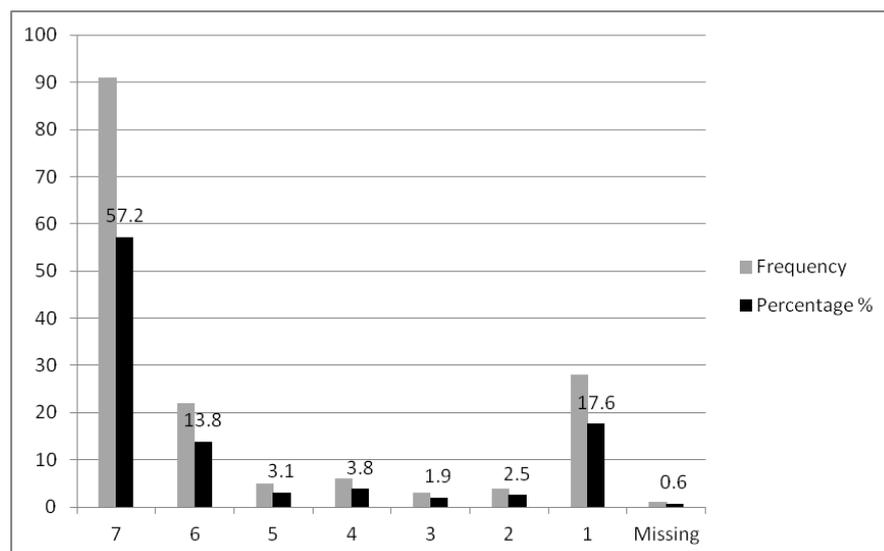
Saudi CCs enjoy effective learning resources as well as provide Students and FM with accessible Internet-based international databases, printing press houses and libraries at a high level exceeding 70%. Furthermore, results revealed all CCs already have academic libraries suffering from some shortcomings in recently published references and scientific references provision.

Section IV: Supporting Infrastructure

5.2.7 Standard 7: Housing Facilities

Such standard includes only one question, namely:

5.2.7.1 My CC does not have suitable student housing facilities.



Mean: 5.43 Std. Deviation: 2.332

Figure 30: Suitability of CCs housing facilities

5.2.7.2 Seventh Standard Results Summary:

The standard-related items basically focus on CCs' Facilities and Equipment (Housing). Overall, majority survey responses (i.e. 74%) indicated Saudi CCs mostly do not have suitable student housing facilities. However, 22% of total sample provided opposite perspectives and 4% were neutral.

Saudi CCs mostly do not have suitable student housing facilities although some other counterpart colleges in the KSA are affiliated to universities that already provide students with required housing services. A case in point here is that the Dean of Madinah CC regretted that his CC and the entire university don't provide housing services "although they are necessary, especially for those students coming from other areas". It should be noted that some other counterpart colleges in the KSA are affiliated to universities that already provide students with required housing services. The case of Riyadh CC, according to its FM, is much better as they have housing facility in the university and dedicated transportation between the housing facility and their CC.

For premises and infrastructure supplies, interviewed FM and TM expressed positive opinions showing that CCs' premises generally enjoy good conditions and are well-equipped with all or most required supplies. However, they also showed that CCs' premises are mostly rented, old and lack educational design aspects.

A case in point here is Tabouk CC that already has a very excellent infrastructure level, as highlighted by its COE-based accreditation in premises, suppliers and safety quality dimensions. In a similar vein, Skaka CC also underwent a similar unique position as highlighted by its Dean who stated "we have high-quality labs, study halls and supporting services".

For safety and security issues, an interviewed TM from Onaiza CC showed that his CC's adopted safety procedures are monitored by the Saudi General Directorate of Civil Defense.

Besides, a participant FM (i.e. Abha CC) stated that "we have a safety and security unit at our CC whose employees have been trained on relevant safety rules, guidelines and procedures".

On the other side, another TM (i.e. Makkah CC) indicated his CC has low-level safety due to sharp shortage in several supplies in a way negatively affecting its safety level, the same opinion shared with the

interviewed FM from Huraimila CC attributing the cause to the fact that their CC occupies rented premises.

5.2.8 Standard 8: Financial Planning and Management

Such standard includes only one sub-question, namely:

5.2.8.1 My CC plans and manages its financial resources well

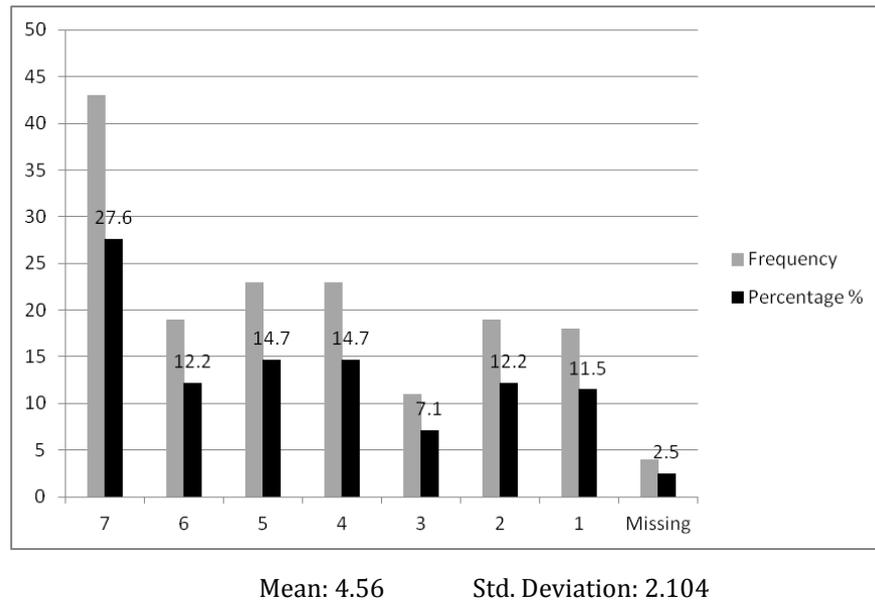


Figure 31: CCs planning and management of their financial resources

5.2.8.2 Eighth Standard Results Summary:

The standard-related items basically focus on CCs' Financial Planning and Management. As a result, they are closely related to the eighth standard of NCAAA's eleven Standards.

54.5% of surveyed FM indicated Saudi CCs mostly plan and manage their financial resources well. However, 31% of total sample provided opposite perspectives and approximately 15% were neutral.

Besides, interviewed TM stated that their CCs' budgets and financial resources are currently audited by their affiliated-university systems without any autonomy to the CC. As clearly stated by Madinah CC Dean, "financial resources allocation is always the responsibility of the university's deputy, and CCs have nothing to do with them".

However, Onaiza CC was an exception to such a rule as its participant TM said "our CC receives financial support following the

formulation of its strategic plan and quality standards. As a result, we have adequate financial resources that are successfully managed”. The Riyadh CC FM said: “Our CC has no problem in managing its financial resources very well. Our CC is in an excellent position”.

Overall, Saudi CCs’ available financial resources are considered sufficient to a good extent. However, CCs don’t have the potential for allocation as deemed suitable for the fulfillment of their various needs.

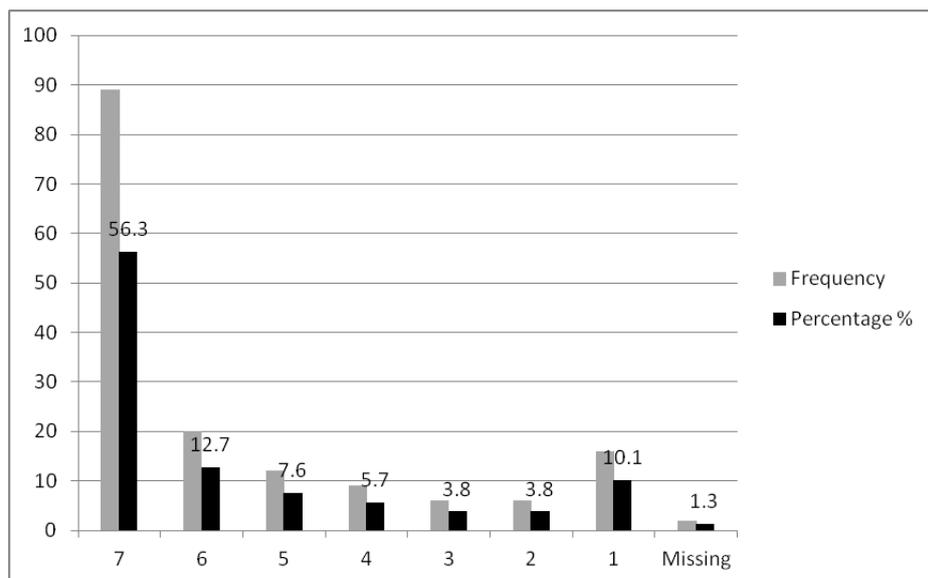
As highlighted by Makkah CC TM, “our CC doesn’t have the authority to develop its own resources, despite the availability of adequate financial resources, due to the university’s imposed constraints”.

However, the strongest criticism in such regard was expressed by another FM from Tabouk CC who indicated his CC lacks adequate financial resources for supporting its needs fulfillment, non-curricular activities and active participation into local community service.

5.2.9 Standard 9: Employment Processes

This standard is composed of four sub-questions as follows:

5.2.9.1 My CC does not evaluate its FM annually



Mean: 5.60 Std. Deviation: 2.053

Figure 32: CCs annual evaluation of their faculty members

76.6% of total surveyed FM stated that their CCs Faculty performance is evaluated annually by their CCs TM. However, 17.7% of total sample provided opposite perspectives and another 5.7% were neutral.

In a similar vein, interviewed TM emphasized the fact that their CCs conduct their annual evaluations on their own in a serious neutral manner by Academic Department Heads, Deans and students themselves employing survey questionnaires as a tool at the end of each semester or academic year.

Notably, the Deputy Dean of Jazan CC stated that FM' annual incentives are awarded according to the evaluation results.

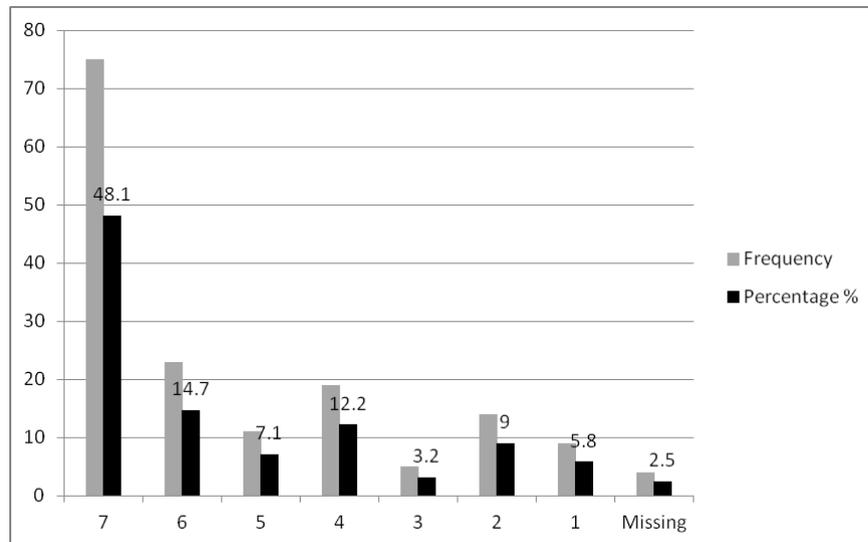
However, the Deputy Dean of Makkah CC illustrated a noteworthy remark stating that contracted FM (either Saudi- or Non-Saudi nationals) are evaluated. However, permanent Saudi FM are exempt from annual performance evaluation and even if applied it has no effects on them. What he said is the real application in all higher education institutions and even all the governmental sector.

Furthermore, participant FM agreed to their counterpart TM' comments. Notably, the participant FM of Tabouk CC provided a detailed description of such situation emphasizing that

“Academic Department Heads evaluate our FM and the entire results are ratified by the CC Dean. Afterwards, concluded weaknesses are discussed with concerned FM to promote their future modification or avoidance. In a similar way, Academic Department Heads are also evaluated and accountable to the CC's Dean”.

The participant from Riyadh CC provided similar details, however they in addition, get their students to evaluate all FM they dealt with in the course otherwise they will not get their exam results.

5.2.9.2 My CC performs an annual evaluation for its administrative staff.



Mean: 5.42 Std. Deviation: 1.974

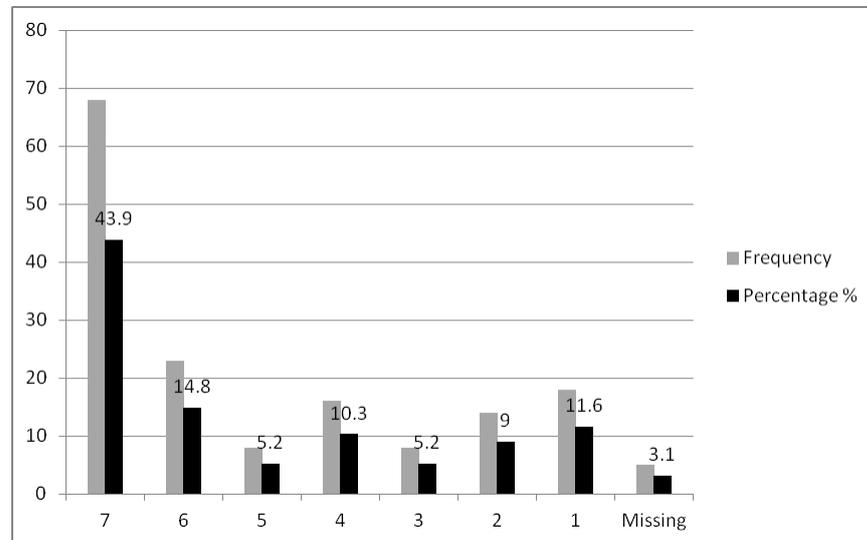
Figure 33: CCs annual evaluation of their administrative staff

From the above figure it is concluded that 70% of surveyed FM stated that their CCs perform annual evaluations for their administrative staff. However, 18% of total sample provided opposite perspectives and another 12% were neutral.

Overall, interviewed TM and FM emphasized the fact that their CCs adopt similar mechanisms and procedures to those use in their FM' annual evaluations.

More precisely, results revealed that CCs' administrative staff members are usually evaluated by their affiliated organizational units, administrations and divisions at the CCs level. Afterwards, such evaluations are ratified by the CC Dean.

5.2.9.3 My CC does not make any efforts to attract highly qualified FM and administrative staff.



Mean: 5.08 Std. Deviation: 2.216

Figure 34: CCs efforts for attracting highly qualified faculty and administration staff

Through questionnaires 64% of total surveyed FM clarified that their CCs make efforts to attract highly qualified FM and administrative staff. However, 26% of total sample provided opposite perspectives and another 10% were neutral.

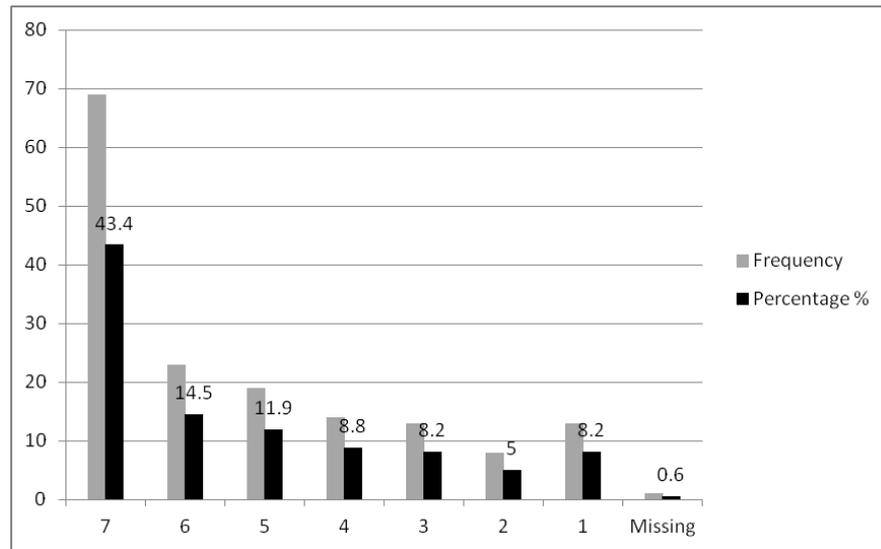
Notably, interviewed TM and FM members showed consensus on the fact that Saudi CCs don't have the necessary authorities to recruit FM and administrative staff. Instead, recruitment is assigned to their universities' recruitment committees. As a result, CCs' Councils merely approve their required FM and administrative staff needs as initially determined by concerned academic department councils.

A case in point here is that the Deputy Dean of Onaiza CC mentioned that the university allows their CC the required authority to select FM and administrative staff against the backdrop of its high employment demand attributed to its unique geographical location in AL-Qasim Province, north of Riyadh, the capital city of the Kingdom of Saudi Arabia.

Following recruitment, CCs make several efforts to retain distinguished FM and administrative staff via financial incentives. On

contrary, the Tabouk CC interviewed FM stated that the most pivotal factors influencing FM and administrative staff retention decisions are “quality of selection, organizational atmosphere quality and professional development programmes”.

5.2.9.4 My CC administrative leaders do not solve problems encountered by its FM or administrative staff.



Mean: 5.28 Std. Deviation: 2.000

Figure 35: CCs administrative leaders efforts in solving problems encountered by its FM or administrative staff

70% of total surveyed FM stated that their CCs administrative leaders adequately seek to solve problems encountered by their FM or administrative staff. However, 21% of total sample provided opposite perspectives and another 9% were neutral.

Notably, interviewed TM and FM indicated that problems rarely occur in practice. Also, they showed that their CCs’ administrations adopt clear guidelines precisely identifying job descriptions for each individual FM or administrative staff; thus reducing the possibility of problems occurrence as a preventive procedure.

Noteworthy, participants stated that in case of encountering any problems, academic departments, administration friendly intervene for their immediate solution. However, if such efforts failed, CCs apply standard procedures for problems investigation and solution in a

systematic disciplinary manner. Sometimes, problems are submitted for the university's administration if found difficult for solution by concerned CCs.

5.2.9.5 Ninth Standard Results Summary:

The standard-related items basically focus on CCs' Employment Processes. As a result, they are closely related to the ninth standard of NCAAA's eleven Standards.

Overall, majority survey responses provided evidences proving that Saudi CCs mostly adopts efficient employment processes based on FM and administrative staff members' annual performance evaluation, recruitment and retention efforts as well as problems prevention and effective solution, if any.

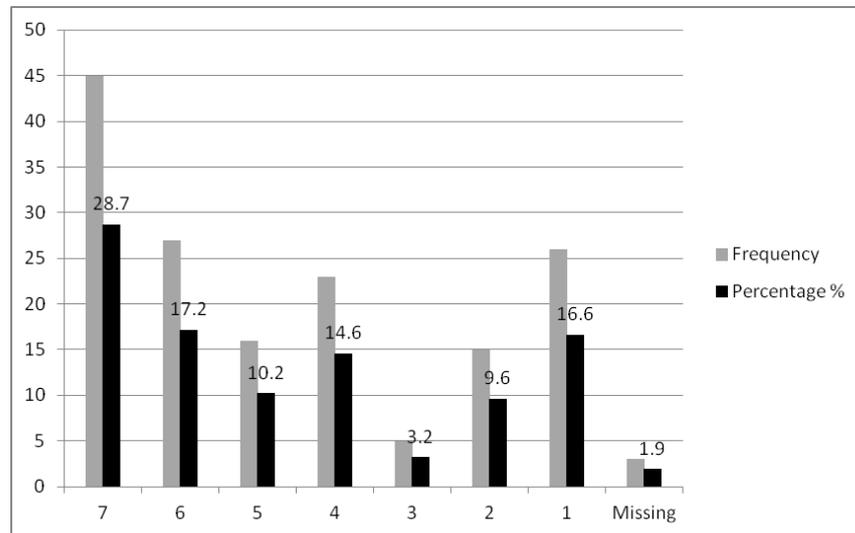
In addition, participants also showed that their CCs carry out such activities in a very adequate manner. However, they suffer from limited recruitment potentials owing to the central-level approved recruitment and employment processes by specialized university committees. As a result, CCs' only role focuses on clarifying needs and required qualifications for either recruited or appointed staff.

Section V: Community Contributions

5.2.10 Standard 10: Research

This standard is composed of three sub-questions as follows:

5.2.10.1 My CC does not have very effective research policies to support researchers.



Mean: 4.59 Std. Deviation: 2.228

Figure 36: Effectiveness of CCs research policies

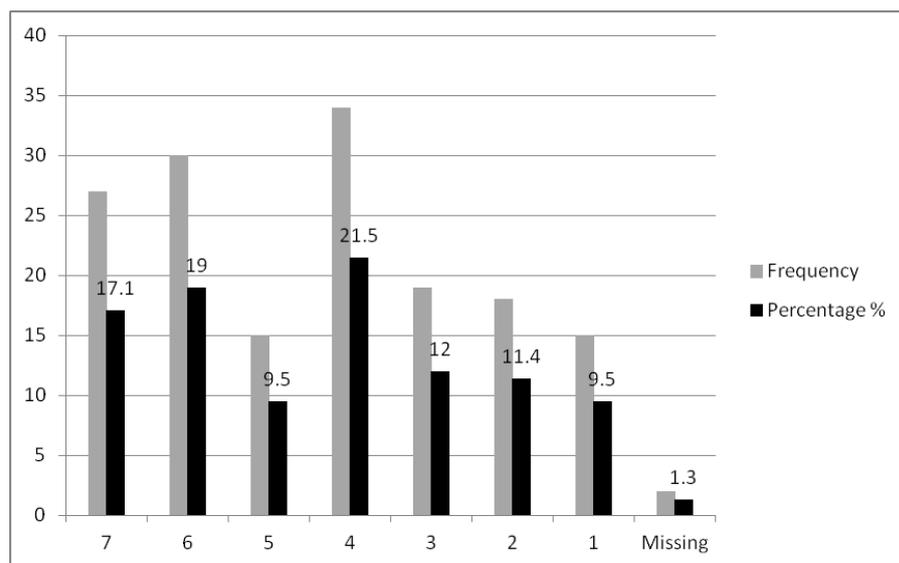
From the above figure, 56% of surveyed FM stated that their CCs have very effective research policies to support researchers. However, 29% of total sample provided opposite perspectives and approximately 15% were neutral.

Notably, interviewed TM and FM reached a consensus that their CCs lack independent research policies at the same time most provided support and research priorities identification is centrally managed by universities via their Scientific Research Deanships that always identify priorities and provide necessary support. Then, researchers belonging to the FM participate in implementing such initiatives. Besides, CCs may sometimes suggest some research priorities, as highlighted by the Dean of Madinah CC.

In a similar vein, some participants downplayed the significance of scientific research for CCs, as stated by the Deputy Dean of Jazan CC who said “CCs don’t usually focus on scientific research”, the same perspective expressed by the participated FM from Abha CC who emphasized that CCs don’t pay scientific research adequate interest because they “merely award a diploma degree”. The participating FM

from Jazan said that “there are quite few members who are quite active and regularly publish their articles”. However, participants stated that CCs already provide their students, of both genders, with research-based study subjects.

5.2.10.2 My CC has a high participation rate in research for its Faculty Members and Students.



Mean: 4.35 Std. Deviation: 1.929

Figure 37: Faculty and students participation rate in research

According to the above figure, 45.6% of surveyed FM stated that their CCs enjoy a high participation rate in research for their FM and students. However, approximately 33% of total sample provided opposite perspectives and approximately 21.5% were neutral.

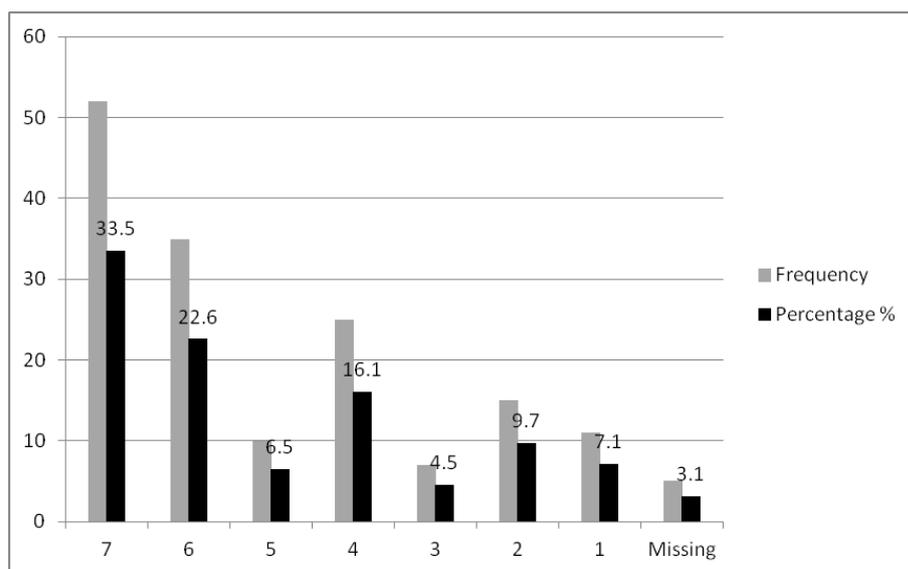
Notably, interviewed TM and FM clarified that CC FM suffer from a very low participation rate in research activities due to the dominant notion stating that scientific research isn't among CCs' major focus areas.

However, overall results show that some CC FM do research, as mentioned by the Deputy Dean of Makkah CC who stated that “FM research participation depend upon their desire and upon their level of activity even though such efforts are limited by nature”.

Furthermore, the participating FM from Abha CC stated that the main reason for declining research capacities is the fact that their CC “lacks an adequate number of PhD holders”.

Noteworthy, a participating FM from Tabouk CC indicated that the role of CCs in research towards it FM is represented by “announcing of their own scientific research opportunities and priorities as well as facilitating FM involvement into relevant research activities, in tandem with their universalities’ research agenda”. The participating FM from Riyadh CC pointed to an important aspect of research that could be of CCs interest which the social researches for the CC local environment. Otherwise research is not in the priority list of CCs.

5.2.10.3 In my CC, researchers lack the needed research requirement.



Mean: 5.07 Std. Deviation: 1.984

Figure 38: CCs provision of research requirement

Approximately 63% of total surveyed FM stated that their CCs researchers receive needed research facilities. However, 21% of total sample provided opposite perspectives and 16% were neutral.

Notably, interviewed TM and FM agreed that their CCs usually adopt the same policies formulated by their university-based Scientific Research Deanship in addition to encouraging researchers to participate

and benefit from such policies. Also, they emphasized that these are, in fact, all possible research facilities provided for CCs. As precisely indicated by the Dean of Skaka CC, “we adopt the same university research policy applied by our university’s Scientific Research Deanship”.

However, participants showed that CCs sometimes carry out some field studies in support of the fulfillment of their desired goals. In addition, they clarified that the main reason for CCs’ lack of independent research policies is the fact that their affiliated universities have a central body, i.e. Scientific Research Deanships, assigned the responsibility for relevant policy formulation and providing researchers with all possible facilities. In a similar vein, the Deputy Dean of Jazan CC clarified that the major rationale for his CC’s lack of research policy is the dominant notion that “CCs don’t usually focus on scientific research” but it rather focus on direct instruction.

Finally, results concluded that the main support policies and research facilities provided by CCs are often restricted to encouraging and supporting researchers to do research as well as make the full use of various facilities and support provided by universities for researchers at all their affiliated colleges. Notably, the Deputy Dean of Abha CC stated that their research support and policies mainly focus on Students, not FM.

5.2.10.4 Tenth Standard Results Summary:

The standard-related items basically focus on CCs’ Research from an integrated perspective focusing on the provision of research policies to support researchers, participation rate in research for FM and finally the facilities provided to researchers.

Overall, majority survey responses and interviews highlighted the fact that Saudi CCs mostly lack independent research policies at the same time most provided support and research priorities identification is centrally managed by universities via their Scientific Research Deanships

that always identify priorities and provide necessary support. Then, researchers participate in implementing such initiatives.

Besides, results showed that the major research role played by CCs is to encourage and support researchers to do research as well as make the full use of various facilities and support provided by universities for researchers at all their affiliated colleges. Finally, participant subjects expressed a strong consensus to the notion that scientific research isn't, in general, on CCs' top priorities agenda.

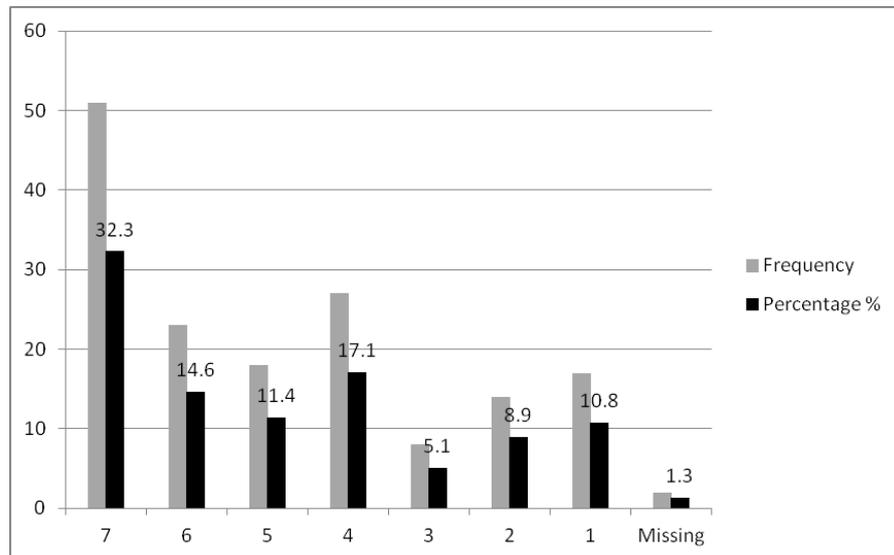
This was supported by the literature as it was mentioned that CCs in USA are being teaching-oriented, rather than research-oriented which in turn made their tuition fees lower than other HEI (Cohen & Brawer, 1987; Hilmer, 1998; Mykerezi *et al.*, 2009; Marcotte, 2010; Teranishi *et al.*, 2011).

Noteworthy, the recently formulated (Draft) “*Standards for Quality Assurance and Accreditation of Community Colleges Established by Universities*” (NCAAA, 2012) and its associated “*Self Evaluation Scales for Community Colleges Established by Universities*” (NCAAA, forthcoming) excluded the Research standard considering it not applicable to CCs.

5.2.11 Standard 11: Institutional Relationships with Community

This standard is composed of two sub-questions as follows:

5.2.11.1 My CC has a very clear policy for its relationships with local community.



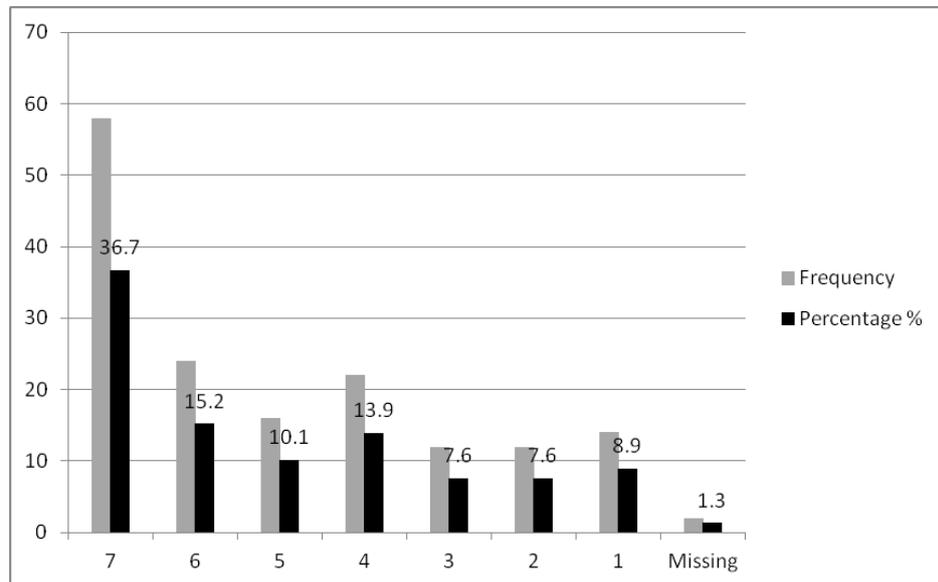
Mean: 4.82 Std. Deviation: 2.080

Figure 39: CCs policies for relationship with local community

58% of total surveyed FM stated that their CCs have very clear policies for their relationships with local community. However, 25% of total sample provided opposite perspectives and 17% were neutral.

In the interviews TM and FM agreed that their CCs oftentimes lack relationships with local community. If any, they aren't formally written policies or statements although they are clear and known. In addition, results revealed that sometimes such policies are already formulated but aren't actually applied in effect; as the case in Abha CC. For Riyadh CC, it, according to its participating FM, has these policies in its plan which is applied by the Committee of Students and Social Activities in the CC.

5.2.11.2 My CC does not have strong relationships and communications with its local community.



Mean: 5.01 Std. Deviation: 2.047

Figure 40: CCs relationships and communication with local community

It's concluded from the above figure that 62% of surveyed FM stated that their CCs have strong relationships and communications with their local community. However, 24% of total sample provided opposite perspectives and 14% were neutral.

The interviewed TM and FM indicated that there's always string effective communication between both sides via adopting multiple strategies such as: the training programmes provided by their CCs to local community members as well as active participation into various public events (Onaiza CC), communication and coordination by the Graduates' Follow-Up Unit (Madinah CC), local community-based meetings, research studies and survey questionnaires (Skaka CC) and meetings with employers at local labor market (Tabouk CC).

Notably, while the Dean of Turaif CC highlighted such strong relationship saying "of course, we belong to a small town where we all people know each other so both formal and civil society organizations collaborate at local level", the Deputy Dean of Abha CC stated that their CC "lacks strong communication channels with local community". The



participating FM from Jazan CC clarified that they “invite local businessmen and listen to their concerns regarding the quality of education we provide”.

5.2.11.3 Eleventh Standard Results Summary:

The standard-related items basically focus on CCs’ Institutional Relationships with Community. Saudi CCs mostly enjoy strong relationships, communication and collaboration with local community. However, results concluded that there’re no written policies or statements; thus providing an indication on the actual presence of such relations even though they aren’t institutional by nature. A case in point here is what has been mentioned by Abha CC (female CC) TM that their CC “lacks strong communication channels with local community”.

5.2.12 Overall descriptive statistics of survey questions on QASs

QAS	Descriptive Statistics				Mean of Means	Best Application
		N	Mean	Std. Deviation		
Mission, Goals & Objectives	Q23	158	6.33	1.234	5.47	1
	Q24	158	4.97	2.367		
	Q25	156	5.56	1.867		
	Q26	157	5.05	2.215		
Governance & Administration	Q27	157	5.41	1.942	5.15	6
	Q28	153	4.93	2.131		
	Q29	155	5.11	1.936		
Quality Assurance & Improvement	Q30	157	5.41	1.928	5.29	5
	Q31	154	5.47	1.801		
	Q32	154	5.53	1.661		
	Q33	152	4.94	2.091		
	Q34	153	5.08	1.975		
Learning & Teaching	Q35	156	5.44	1.786	5.42	3
	Q36	155	5.39	1.856		
	Q37	155	5.43	1.809		
Student Administration & Support Services	Q38	156	4.56	2.001	4.74	9
	Q39	156	4.92	1.976		
Learning Resources	Q40	157	5.08	1.925	5.09	7
	Q41	156	5.10	2.101		
Facilities & Equipment	Q42	159	5.43	2.332	5.43	2
Financial Planning & Management	Q43	156	4.56	2.104	4.56	11
Employment Processes	Q44	158	5.60	2.053	5.34	4
	Q45	156	5.42	1.974		
	Q46	155	5.08	2.216		
	Q47	159	5.28	2.000		
Research	Q48	157	4.59	2.228	4.67	10
	Q49	158	4.35	1.929		
	Q50	155	5.07	1.984		
Institutional Relationships with Community	Q51	158	4.82	2.080	4.915	8
	Q52	158	5.01	2.047		

Table 19: Overall descriptive statistics of the questions 23-52

In conclusion, it can be concluded from the above table that most survey respondents FM indicated that the overall score for Saudi CCs'



implementation of NCAAA's standards is **5.09** of a total of 7.00 (i.e. **73%**). Notably, the Mission, Goals and Objectives standard came first at the standards top list in practical implementation, followed by both Facilities and Equipment (Housing) and Learning and Teaching which came second and third respectively with a 4.56-5.47 average range of the total 7.00 (i.e. in the 65-78% statistical scores range). These figures will be used to establish the relationship between QAS and service quality.

5.3 Factor Analysis of Quality Assurance Standards of the Saudi NCAAA

This section explores the relationship between QASs and SERVQUAL performance. The factor analysis is used in this research to reduce the number of QAS and to group them into smaller number of factors according to their concepts and according to their influence on the dimensions of service quality.

The factor analysis was applied on the 11 QAS from only the Faculty questionnaires. As they are responsible for applying them according to the NCAAA. The Students are not able to provide any answer and the Top Managers general responses were obtained via interviews.

The concept of a Factor refers to a cluster of variables, which show strong correlations with each other, and appear to go together (Bryman & Cramer, 2009). Factor analysis is a statistical technique for identifying such factors based on the analysis of the correlation matrix. It helps to assess the extent to which items under study are having the same concept (Bryman & Cramer, 2009), it also helps to reduce the large number of items to a small set of items or to a smaller number of factors if there are many, which can reduce the level of complexity of behavior in social studies (Bryman & Cramer, 2009).

As the results are not determined to fit a certain model, the exploratory factor analysis was chosen. It was used to determine the

relationships underlying the variables under study (i.e. the QAS) (Bryman & Cramer, 2009; Norris & Lecavalier, 2009).

For that reason factor analysis was used in this research to reduce the number of QAS and to group them into smaller number of factors according to their concepts. This has resulted into three factors that will be shown in table (26) in this chapter.

First, the following table show the number of faculty members from each CC in the sample group who responded to the questions (23-52) in the Faculty questionnaires. Those questions have covered the eleven Quality Assurance Standards (QAS) of the Saudi NCAAA:

		Value Label	N
CCs	1	Onaiza CC	12
	2	Abha Female CC	22
	3	Skaka CC	3
	4	Turaif CC	15
	5	Huraimila CC	6
	6	Tabouk CC	17
	7	Riyadh CC	12
	8	Makkah CC	11
	9	Madinah CC	27
	10	Jazan CC	4
		total	129

Table 20: No. of respondents of faculty members in each of the ten CCs

The eleven QAS are analyzed according to the 30 questions covering them, which are shown in the following table:

Quality Assurance Standards (QAS)	Related Questions
(1) Mission, Goals and Objectives;	b23, b24, b25 and b26
(2) Governance and Administration;	27, 28 and 29
(3) Management of Quality Assurance;	30, 31, 32, 33 and 34
(4) Learning and Teaching;	35, 36 and 37
(5) Student Administration and Support Services;	38 and 39
(6) Learning Resources;	40 and 41
(7) Facilities and Equipment (Housing);	42
(8) Financial Planning and Management;	43
(9) Employment Processes;	44, 45, 46, and 47
(10) Research;	48, 49 and 50
(11) Relationships with the Community.	51 and 52

Table 21: QAS and its related questionnaire questions.

The distribution of these questions was built upon the points raised by NCAAA in each of the QAS. Each point was covered by a question.

5.3.1 The effects of CCs on QAS

MANOVA test for multi variations was used in order to measure the groups' differences (Novak, 1995). It is used for analyzing at least two or more dependent variables integrated together (Bryman & Cramer, 2009). MANOVA test was used to determine the effects of independent variables (CCs) on dependant variables (QAS). Four tests under MANOVA were used Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root. First, Pillai's Trace, which was used to see if the sample came from "populations with the same mean vector"(Manly, 2004, p.49) or not. Pillai's Trace is a test for multivariate analysis to see if the means of the "groups differ significantly on a discriminant function or characteristic root" (Bryman & Cramer, 2009, p.360). Second, Wilks' Lambda which is used to test whether there are "differences between the means of identified classes of subjects on a



combination of dependent variables” (Wang *et al.*, 2011, p.3004). Third, Hotelling's Trace which is used to measure two variables or more for two samples (Manly, 2004). And Fourth, Roy's Largest Root, which is similar to Pillai's Trace (Bryman & Cramer, 2009) which was used also for correlation significance testing (Nadler & Johnstone, 2011). The results revealed highly significant statistical effects for CCs on QAS.

The QAS Means and Standard Deviations are shown in table (20) in page 163.

The following table show the ten CCs and their cumulative means of the eleven QAS

	CCs	Their Cumulative means of the 11 QAS
1	Onaiza CC	4.91
2	Abha Female CC	5.22
3	Skaka CC	4.98
4	Turaif CC	5.46
5	Huraimila CC	4.66
6	Tabouk CC	5.38
7	Riyadh CC	5.64
8	Makkah CC	3.17
9	Madinah CC	5.91
10	Jazan CC	4.70
	Total	5.16

Table 22: CCs and their cumulative means of the eleven QAS

It can be seen from the above table that the ten CCs excluding Makkah CC are to some extent applying successfully all QAS as they achieved, in general, higher than 3.50 which is the average score (as the score used is 1-7). They achieved between 4.66 (in Huraimila CC) to 5.91(in Madinah CC).

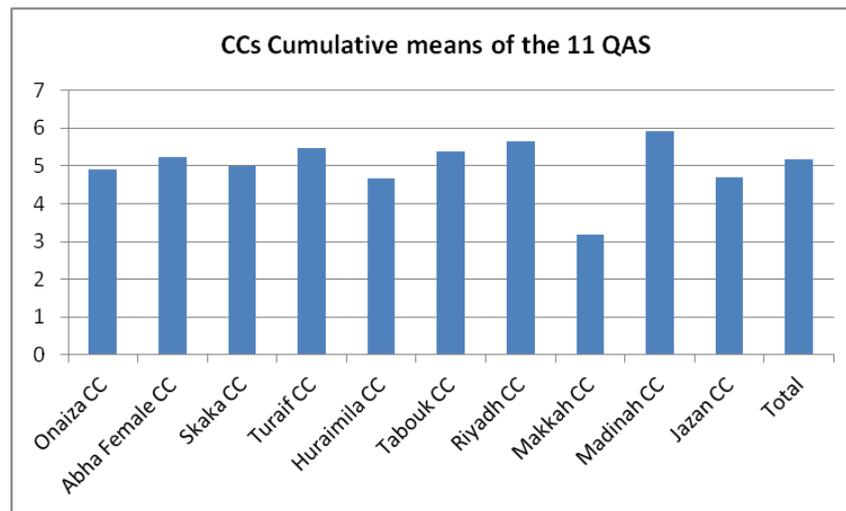


Figure 41: CCs and their cumulative means of the eleven QAS.

5.3.2 Factor Analysis

According to what has been clarified above about factor analysis and the role it plays, an initial factor analysis and a rotated factor analysis were made. The results obtained show that QAS converged on three common factors interpreting (69.92%) of total variances. This can be seen in the following table:

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.401	49.096	49.096	5.401	49.096	49.096	4.171	37.920	37.920
2	1.232	11.197	60.292	1.232	11.197	60.292	2.401	21.826	59.746
3	1.060	9.634	69.926	1.060	9.634	69.926	1.120	10.180	69.926
4	.746	6.781	76.707						
5	.561	5.103	81.810						
6	.494	4.494	86.303						
7	.415	3.777	90.080						
8	.358	3.256	93.336						
9	.322	2.929	96.265						
10	.233	2.122	98.387						
11	.177	1.613	100.000						

Extraction Method: Principal Component Analysis.

Table 23: The exploratory factor analysis of QAS



Rotated Component Matrixa			
QAS	Component		
	1	2	3
1-Mission, Goals and Objectives	.779	.205	-.134-
2- Governance and Administration	.857	.122	-.003-
3- Management of Quality Assurance	.820	.201	-.071-
4- Learning and Teaching	.856	.237	-.009-
5- Student Administration and Support Services	.355	.647	.237
6- Learning Resources	.787	.339	.104
7- Facilities and Equipment (Housing)	-.083-	-.037-	.945
8- Financial Planning and Management	.201	.668	.083
9- Employment Processes	.658	.424	-.062-
10- Research	-.063-	-.775-	.333
11- Relationships with the Community	.443	.697	-.127-

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 4 iterations.

Table 24: Rotated Component Matrixa

After rotation, each of those three factors include some of the QAS which can be seen in the following:

Factor 1: (Standards: 1,2,3,4,6 and 9).

Factor 2: (Standards: 5,8,10 and 11).

Factor 3: (Standard: 7).

Factors	QAS
1	(1) Mission, Goals and Objectives; (mis)
	(2) Governance and Administration; (govern)
	(3) Management of Quality Assurance; (mang)
	(4) Learning and Teaching; (learning)
	(6) Learning Resources; (learningr)
	(9) Employment Processes; (employ)
2	(5) Student Administration and Support Services; (student)
	(8) Financial Planning and Management; (finan)
	(10) Research; (research)
	(11) Relationships with the Community.(relation)
3	(7) Facilities and Equipment (Housing); (facil)

Table 25: QAS after factor analysis



5.4 The correlation between Quality Assurance Standards and the Five Dimensions of SERVQUAL

The Research Question 2B is about enhancing QM and service quality in CCs in KSA to a standard comparable with international best practice. Whilst HEI including CCs in KSA are applying QAS in order to enhance QM in the local level, it is not clear as to the effectiveness of this approach in raising service quality as perceived by the CCs' customers (Students). SERVQUAL represents an international tool for measuring service quality, so that both service quality and QAS can be measured in this research to investigate to what extent QAS influences service quality. The main questions to be answered are: Do QASs correlate to SERVQUAL? Can applying QAS successfully influence service quality as expressed by SERVQUAL dimensions?

It has been hypothesized that QAS have a positive influence on service quality i.e. applying QAS successfully will lead to a good service quality, and vice versa, failing to apply QAS well will lead to quality gaps. Service quality is represented by its five dimensions (Tangibility, Reliability, Responsiveness, Assurance and Empathy).

QAS	SERVQUAL dimensions				
	Tangibility	Reliability	Responsiveness	Assurance	Empathy
(1) Mission, Goals and Objectives;	0.508**	0.363**	0.420**	0.579**	0.633**
(2) Governance and Administration	0.511**	0.499**	0.409**	0.598**	0.564**
(3) Management of Quality Assurance;	0.446**	0.374**	0.381**	0.534**	0.518**
(4) Learning and Teaching;	0.525**	0.510**	0.373**	0.621**	0.574**
(5) Student Administration and Support Services;	0.303**	0.268**	0.364**	0.504**	0.380**
(6) Learning Resources;	0.523**	0.543**	0.457**	0.682**	0.568**
(7) Facilities and Equipment (Housing);	-0.115	0.061	-0.153	-0.069	-0.006
(8) Financial Planning and Management;	0.378**	0.217**	0.249**	0.303**	0.278**
(9) Employment Processes;	0.462**	0.483**	0.477**	0.658**	0.563**
(10) Research; (research)	-0.172*	-0.125	-0.241**	-0.334**	-0.204*
(11) Relationships with the Community (relation)	0.393**	0.395**	0.374**	0.515**	0.482**

*Significance at (0.05). **Significance at (0.01).

Table 26: The correlation between QAS and SERVQUAL

One of the most common correlation measures is Pearson (Bryman & Cramer, 2009), which has been applied to measure the correlation between QAS and SERVQUAL dimensions.

It can be seen in the above table that all correlations are positively significant except standards (7) Facilities and Equipment (Housing); (facil), which was very week and has no statistical significance, on the one hand, and (10) Research; (research), which was negative and varied in its significance, on the other hand.

According to the strength and direction that measure the relationship between pairs of variables (Bryman & Cramer, 2009), Nine out of Eleven QAS are significantly correlated to SERVQUAL dimensions. This means that whenever those nine QAS increased, SERVQUAL dimensions tend to increase.

The SERVQUAL dimensions are affected strongly by QAS. Assurance came first and then Empathy, Tangibility, Reliability, and Responsiveness respectively. Assurance being the first influenced by QAS is logically accepted also as the QAS are directly pointed towards Quality Assurance.

The following chart depicts the SERVQUAL dimensions and their influence rate by QAS:

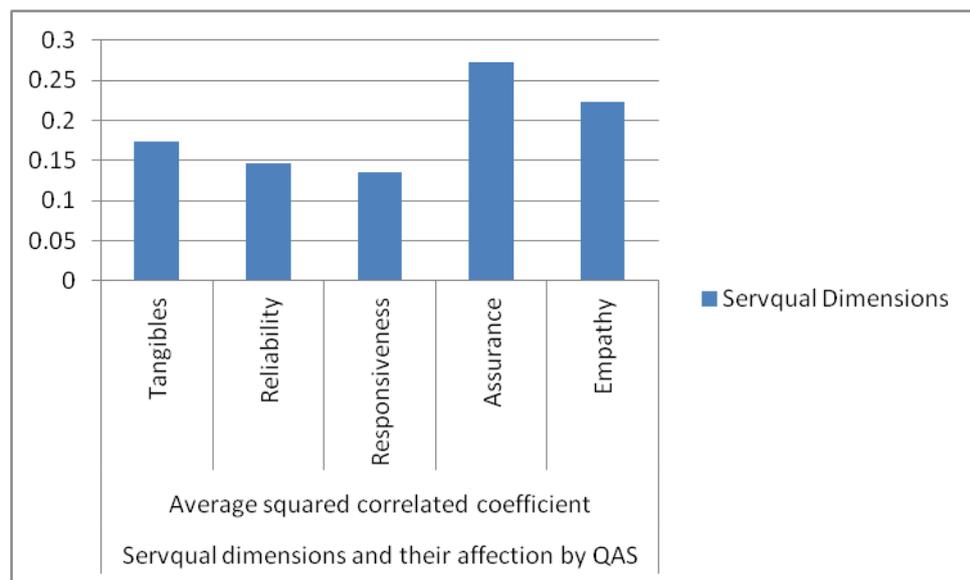


Figure 42: Influence of QAS on SERVQUAL.

For QAS, the standards mostly affecting SERVQUAL were (6) Learning Resources, (9) Employment Processes and (4) Learning and Teaching, followed by (2) Governance and Administration, (1) Mission, Goals and Objectives, (3) Management of Quality Assurance, (11) Relationships with the Community, (5) Student Administration and Support Services, (8) Financial Planning and Management, (10) Research and (7) Facilities and Equipment (Housing) respectively. As can be seen in the following table:

#	Ranking QAS according to their influence on SERVQUAL	Average squared correlated coefficient
1	(6) Learning Resources;	0.313
2	(9) Employment Processes;	0.285
3	(4) Learning and Teaching;	0.278
4	(2) Governance and Administration;	0.271
5	(1) Mission, Goals and Objectives;	0.260
6	(3) Management of Quality Assurance;	0.207
7	(11) Relationships with the Community.	0.190
8	(5) Student Administration and Support Services;	0.139
9	(8) Financial Planning and Management;	0.084
10	(10) Research;	0.051
11	(7) Facilities and Equipment (Housing);	0.009

Table 27: Ranking QAS according to their influence on SERVQUAL

The highest effect between QAS and SERVQUAL was the effect of (6) Learning Resources (from QAS) on Assurance (from SERVQUAL), while the lowest (out of the nine QAS) was between (8) Financial Planning and Management (from QAS) and Reliability (from SERVQUAL).

As a result, it could be said that all the SERVQUAL dimensions are related to QAS. It could be said also generally that applying QAS successfully will lead to applying SERVQUAL dimensions successfully, which in turn will reduce or eliminate quality gaps and guarantee good service. This indicates that there are correlations between Quality Assurance Standards and the five Dimensions of SERVQUAL.

However, it should be born in mind that some dimensions are less affected than others by QAS, which can be seen in the two dimensions having the larger gaps, Tangibility and Reliability as they were the third and the fourth of the five dimensions affected by QAS as shown in figure (42). This will be clarified later.

The results in the above came in line with the results on Table (26) as the first six standards form the first of the three factors resulted

after factor analysis. The results validate the factor analysis output and show that the first factor (after factor analysis) include all the standards highly influencing SERVQUAL.

More accurately, it could be said that Standard (6) Learning Resources has the highest influence on SERVQUAL dimensions, which in turn calls for more concentration and focus on that Standard especially. The more this standard is improved the more service quality will improve. Standards (9) Employment Processes, (4) Learning and Teaching, (2) Governance and Administration and (1) Mission, Goals and Objectives, came respectively after standard (6). Standards (3) Management of Quality Assurance and (11) Relationships with the Community came secondly, (5) Student Administration and Support Services, and (8) Financial Planning and Management came third while (7) Facilities and Equipment (Housing) and (10) Research are the least standards influencing SERVQUAL dimensions.

The correlation between the standard Research, (that came in the least QAS influencing SERVQUAL dimensions), and SERVQUAL Dimensions is very weak which is also in line with what has been mentioned in the chapter of Quality Assurance Results on the analysis of questions (48, 49 and 50) where the quantitative and qualitative results revealed that Saudi CCs mostly lack independent research policies and that research is centrally managed by the universities that each CC is affiliated to. In addition, those results revealed also that scientific research isn't, in general, on CCs' top priorities agenda as they are instruction oriented colleges.

Standard (7) Facilities and Equipment (Housing) and its weak correlation to SERVQUAL Dimensions remains unclear.

Finally, it can be concluded that the hypothesis that QAS have a positive influence on service quality was partly proven to be correct.

5.4.1 A comparative analysis between Makkah CC and Madinah CC for understanding reasons for low performance in quality management

The RBV theory, which will be clarified in the next chapter, can provide an explanation of the differences between firms or organizations performance in the same discipline. It is the resources and the capabilities in utilizing them. In this comparative analysis the ten CCs have the same working environment, deal with nearly the same situation and follow the same procedures and regulations. So what did make Madinah CC performs, according to all the instruments used and the results obtained in this research, better than Makkah CC and all the other CCs? And what did make Makkah CC performance worst than the others?

Results clarified in table 23 and figure 41 along with the other results in this research are pointing to high and low performing CCs. It is intended in this section to explore the differences by comparing two of the sample CCs. The high performance represented by Madinah CC and the low performance represented by Makkah CC. All the aspects of their performance from questionnaires and interviews in this thesis have been revisited. The comparison will be on the results they obtained in both service quality and QAS from the Faculty and Students perspectives.

5.4.1.1 Comparing the two CCs from the Service Quality aspect

It is intended to use the perception of both faculty and students in this comparison because having more perceptions make the findings obtained more reliable.

Makkah CC –according to faculty members- has the worst performance out of the ten CCs by having four gaps two of them are large while all the other CCs don't have more than three gaps. Makkah CC has the worst situation of the ten CCs because of the two large gaps it has in Tangibility and Reliability, although it has experiences better than expectations in Responsiveness. From the students point of view Makkah CC situation is even worse as it has gaps in all the five dimensions four of

them are large gaps. It could be said that Makkah CC has got the worst performance of the ten CCs in service quality as it obtained the last ranking in both Faculty and Students perception. From the above, it can be seen that Makkah CC scores in tables (23 and figure 41) was in line with its other results in service quality and QAS result chapters.

On the other side, **Madinah CC** –according to faculty members– has three gaps none of them is a large gap. At the same time, it has experiences better than expectations in two dimensions Assurance and Empathy. From the students’ point of view, Madinah CC performance is lower than from the faculty point of view; however, it has three gaps one of them is a large one (e.g. Reliability). Moreover, it has experiences better than expectations in Empathy. It could be said, according to the result it obtained in comparison to the other ten CCs, that Madinah CC has got the best performance in all the ten CCs in the two perceptions of both faculty and students as it has obtained the second CC in the two rankings.

The following two graphs show the comparisons between Makkah CC and Madinah CC from both Faculty and Students perceptions:

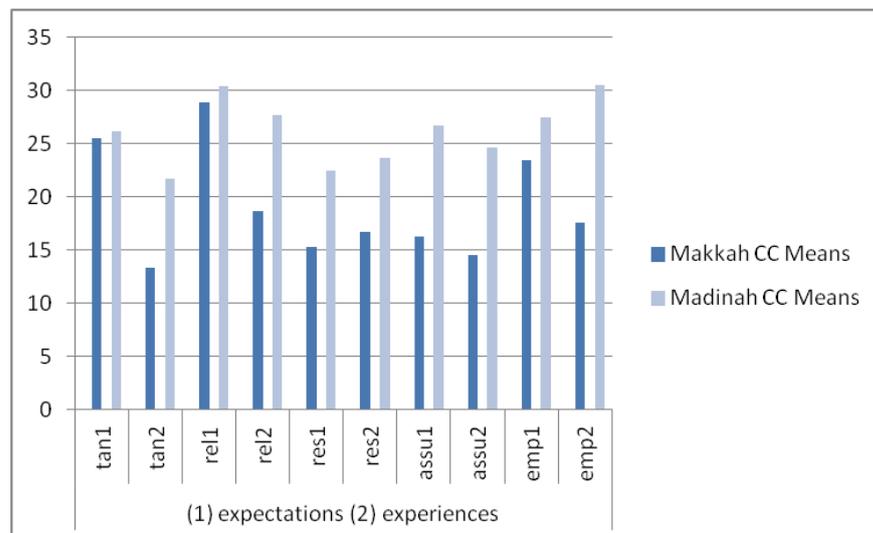


Figure 43: Makkah CC and Madinah CC means on service quality from Faculty perception

It can be seen in The above table that the difference between dimension1 (expectations and dimension 2 (experiences) points to the size of the gap or the achievement between expectations and experiences. For example, the gap in Tangibility (tan1 and tan2) is larger in Makkah CC than the gap of Madinah CC. It can be noticed also that all the expectations of Makkah CC Faculty are lower than those of Madinah CC. This might reflect the level of confidence the Faculty of Makkah CC have in their CC. From the RBV perception, this might also show that there is a difference between the two CCs in the resources they have. i.e. Faculty. Since Makkah CC Faculty are less inspired than those of Madinah CC. It could be said also that Makkah CC Faculty seem to be not expecting their CC, according to what they know about its current status, to achieve what the other well performing CCs achieve, so their expectations came less than the expectations of the faculty of a well performing CC.

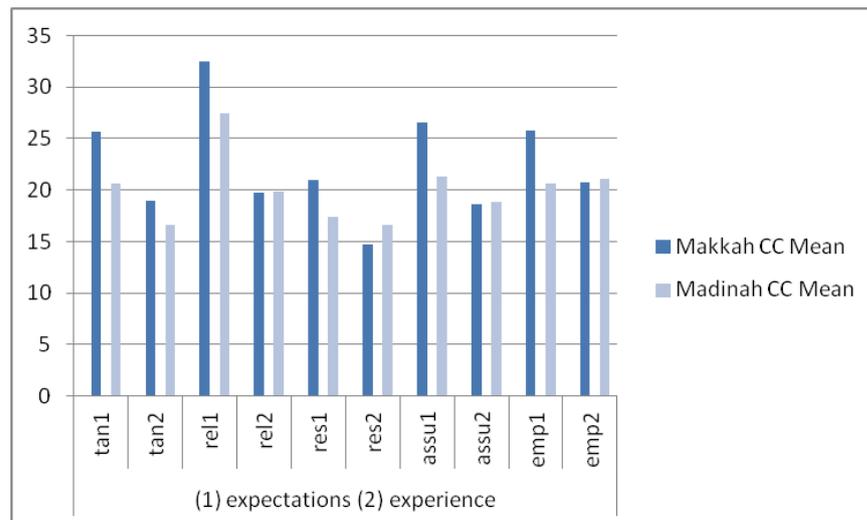


Figure 44: Makkah CC and Madinah CC means on service quality from Students perception

Like the previous figure, Madinah CC performance is higher than Makkah CC in all the five dimensions. The difference here is in the students' aspirations (expectations) as they were higher in Makkah CC than Madinah CC and all the ten CCs. See table (37) in Appendix 3. The reason behind that is not clear; however, it might reflect the dissatisfaction of what students experienced in reality in their CC. Still,

however, students are expecting more from their CC as they might see no excuse for having lower service quality than students of the other CCs and colleges. While the lower expectations in the case of Makkah CC Faculty might be because they are the ones who deliver educational services to students and know the real status of their CC and its ability of achievement .

Looking only at experiences, Makkah CC is performing better than Madinah in Tangibility and nearly the same in the other four dimensions. Although its lower than Madinah CC, however, the difference is not that large. But when comparing expectations to experiences the gaps appear clearly. This is not the case in Faculty perception where the difference in performance between the two CCs was very clear.

* The full details for the ten CCs can be found in the Appendix 2: Tables 28, 37 and Figure 40.

5.4.1.2 Comparing the two CCs from the QAS aspect

It should be noted that all the following ideas regarding Makkah CC and Madinah CC performance are coming from the QAS analysis and interviews data of Faculty only.

From the perception of Faculty regarding QAS application, **Makkah CC** is below the average. It has achieved 3.37 while the average is 3.50 and the cumulative means of all the ten CCs was 5.1. This is not the case in **Madinah CC** as it achieved 5.96 which is above 5.1 the cumulative means of all the ten CCs.

Makkah CC scores ranged between 1.29 to 6.79. It has very crucial problems in the standards (4, 2, 6, 11,1, 9, 8, and 3) respectively. Having 8 out of 11 below the average shows how low is Makkah CC performance in QAS. The interesting thing to be noted here also is the high score of the Standard 7 (Facilities and Equipment (Housing)) that Makkah CC scored, as it has scored the highest score in all the ten CCs by achieving 6.79 out of 7. On the other side, **Madinah CC** scores ranged



between 3.97 to 6.72, and ten out of the eleven are above 5.38 with no standard below the average. This can be seen in detail in Appendix 1: CCs scores on QAS. This show how well Madinah CC is performing and how well it is balancing its focus in all the QAS. This can be seen in the following figure (41).

The following table show **in detail** the cumulative means of the QAS for the whole sample with more details for Makkah and Madinah CCs:

Standards	CCs Cumulative Means	Makkah CC Means	Madinah CC Means
(1) Mission, Goals and Objectives;	5.47	2.89	6.72
(2) Governance and Administration;	5.15	2.00	6.33
(3) Management of Quality Assurance;	5.28	3.38	5.61
(4) Learning and Teaching;	5.42	1.76	6.40
(5) Student Administration and Support Services;	4.74	3.96	6.16
(6) Learning Resources;	5.09	2.53	6.34
(7) Facilities and Equipment (Housing);	5.43	6.79	6.31
(8) Financial Planning and Management;	4.56	3.00	5.38
(9) Employment Processes;	5.34	2.92	6.30
(10) Research;	4.67	5.33	3.97
(11) Relationships with the Community.	4.91	2.55	6.03
	5.10	3.37	5.96

Table 28: Cumulative means of the QAS for the whole sample with more details for Makkah CC

The comparison between the two CCs can be depicted in the following figure that shows the mean values of all the ten CCs as well as those specific to Makkah CC and Madinah CC:

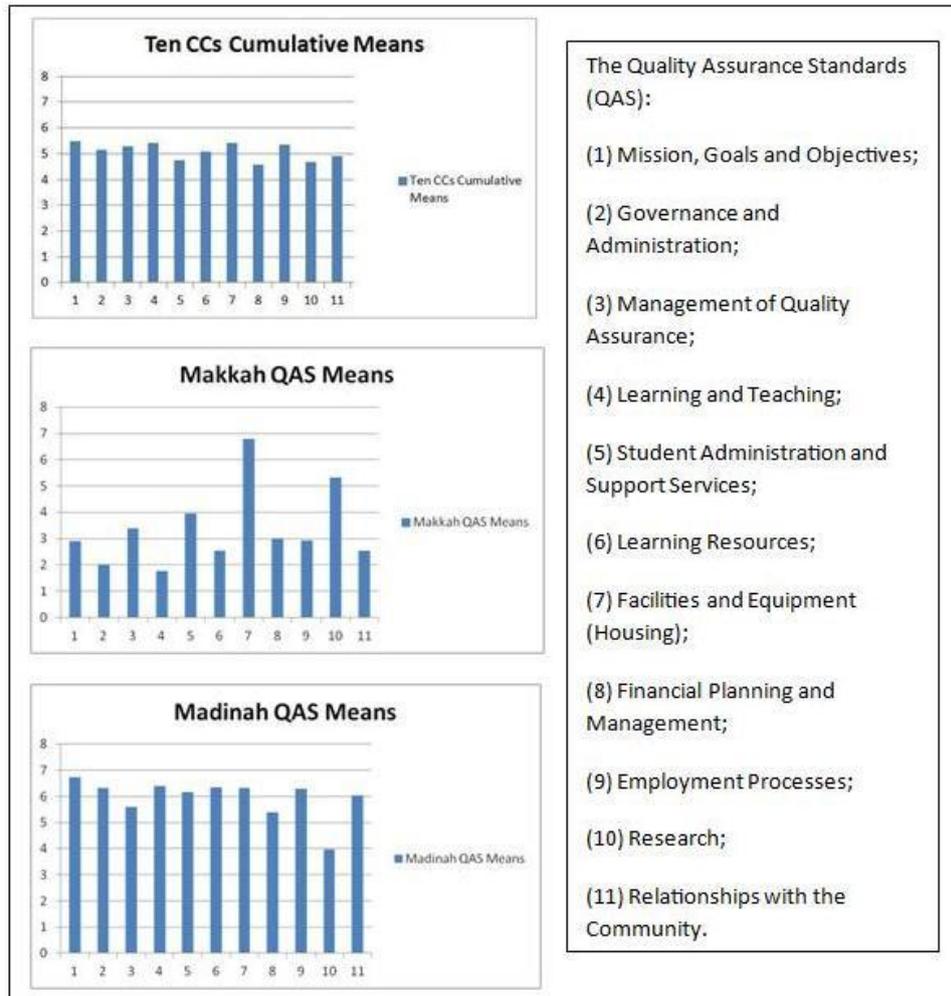


Figure 45: The ten CCs, Makkah CC and Madinah CC means on QAS

The above table shows clearly the difference in performance between the two CCs. **Makkah CC** has three standards above the average (the average is 3.5) 5, 10 and 7.

An explanation of Makkah CC's poor performance can be derived from interviews undertaken with Makkah CC Deputy and faculty member. According to its Deputy, Makkah CC is the only CC of the ten who have only goals without objectives in its plan. Its plan does not

enjoy good relevance with its status quo as it was stated by its Deputy. The mission statement of its plan is so ideal, which makes it difficult to be implemented. Makkah CC governing body also has an average effectiveness. Its exerted efforts in planning are inadequate. This was clarified by its Deputy as he stated “the formulated mission statement is relatively ideal so that it doesn’t enable implementers to accomplish via applied goals and objectives”.

Makkah CC faculty members’ lack collaboration and their college deanship is unable to provide them with suitable motivating incentives and rewards to encourage them to do so. As clarified by Makkah CC interviewed Faculty Member. It has not applied yet to the academic accreditation rewarded by NCAAA although most other CCs have. It lacks effective mechanisms for decision making and autonomy. Its affiliated university’s centralization in academic programmes and syllabuses selection weakened its institutional development efforts. Makkah CC has a low-level of safety in its building either in facilities or regulations, as it lacks safety facilities and lack regulations for using them. Makkah CC doesn’t have the authority to “develop its own resources, despite the availability of adequate financial resources, due to the university’s imposed constraints”; however, this is the case in most of the ten CCs, and therefore is not likely to be a particular cause of the performance deficit.

The three standards Makkah CC performed well are discussed in the following:

Standard 5: Students Administration and Support Services:

As they are in the same city, and like the other university colleges, Makkah CC enjoyed all its affiliated university facilities including medical, social services and student extracurricular activities. This might have helped Makkah CC to perform better than the other 8 standards as this standard has not been left to its own resources and capabilities. The Deputy of Makkah CC in the interview emphasized that they neither have



independent decisions nor an independent budget for students' support services; however, they provide services for their students with the cooperation of their affiliated university. In addition, they present very good student extracurricular activities in their CC; however, as can be seen in the last figure, this standard is hardly above the average.

Standard 7: Facilities and equipment (housing): While most of the sample CCs have no housing facilities few of them including Makkah CC has this service provided by its affiliated university. The Deputy however, clarified that they don't have their own housing; however, the service can still be reached by students via the university's housing service.

It is worth mentioning that Makkah CC has a decent academic building which is not the case in most of CCs in KSA. However, the Dean of Makkah CC emphasized that they don't have enough equipment in their building. The highest score of Makkah CC in QAS was in Facilities and Equipment (Housing), (6.79) which came the second in the best applied QAS in the ten CCs (The Cumulative Mean score for all the ten CCs is 5.1).

Although Makkah CC obtained the highest score in standard 7 Facilities and Equipment (Housing), however, it does not affect positively the students' satisfaction. It has been clarified that housing has little correlation to service quality dimensions. Therefore, despite the highest score it achieved from the faculty perception, Makkah CC has gaps in four dimensions two of them are large ones from the Faculty's perception and gaps in all the five dimensions four of them are large gaps from the Students perception. It might be said that the high score of that standard was due to the housing or building services provided by the Makkah CC's affiliated university, while the other standards were left to Makkah CC resources bearing in mind the lack of Faculty (as the main resources) collaboration Makkah CC is suffering from as explained before.

Standard 10: Research: The Deputy also clarified that Research in the whole university and all of its colleges including Makkah CC is managed centrally by the university. He stated that “faculty members’ research participation depends upon their desire and upon their level of activity even though such efforts are limited by nature”.

However, unfortunately, this standard is not one of the QAS standards influencing service quality as it was discussed in Chapter 6 that the QAS having a positive influence on service quality are the standards 6, 9, 4, 2, 1 and 3.

The conclusion to be drawn from the above three standards is related to RBV. It is resources and capabilities for utilizing them that play the crucial role in Makkah CC performance. As all the three standards that were above the average were the services provided centrally by the university while the other standards provided by Makkah CC and its resources were below the average.

The dissatisfaction raised by Makkah CC Students either by the gaps in all the five dimensions of service quality or by their expectations that were the highest among all the ten CCs students, see table (37) in Appendix 3, which, as mentioned before, might reflect what Students experienced in reality in their CC.

This shows the Makkah CC failure of achieving above the average of QAS when they are under its control and left to its resources, which in turn affected its performance in service quality by having gaps in all dimensions.

Madinah CC enjoyed excellent performance in the first standard (Mission, Goals, and Objectives), it has scored 6.72 out of 7. Although it is still in the initial stages in QAS implementation that are largely hindered by other basic problems such as lack of study halls, premises, infrastructure, supplies, etc. As a result, such existing conditions negatively affect quality and relevant standards application, due to the

weak communication between NCAAA and its affiliated CCs; however, and despite that, Madinah CC has, according to its Dean, embarked into intensive communications with COE (the American-based Council on Occupational Education) officials to obtain required academic accreditation for their adopted standards. In monitoring and evaluating students' learning outcomes, Madinah CC is an exception from the other ten CCs. This was expressed by the Dean of Madinah CC who emphasized "we have an alumni unit communicating with graduates and their employers". In the social services side, Madinah CC is also an exception of the ten CCs. It has a unique initiative in providing its students with high-quality social services reaching the 90% level, as indicated by its Dean who stated that the main reasons are that "we have specialized units for student affairs, adequate supplies and high-level of students' participation". The same perspective repeatedly mentioned by its interviewed FM members. In addition, the Dean of Madinah CC mentioned that his CC conducts a yearly comprehensive evaluation for the educational system depending on students' feedback.

In a similar situation like Makkah CC, Madinah CC does not have independent control of its financial resources as they are "always the responsibility of the university's deputy, and CCs have nothing to do with them". Although Research (standard 10), as mentioned previously, is not on the top priority agenda of CCs, Madinah CC, as highlighted by its Dean, takes care of research and has its own research priorities that get the support for applying them from its affiliated university (as research is managed centrally by the university).

Why do differences between the two CCs exist?

As was previously mentioned in this Chapter, it has been hypothesized that the implementation of QAS has a positive influence on service quality, i.e. applying QAS successfully will lead to a good service quality and vice versa failing to apply QAS well will lead to quality gaps. It was discussed in that Chapter that QAS have a positive influence on

service quality. This applies on the standards 6, 9, 4, 2, 1 and 3 respectively, as not all of the QAS influence SERVQUAL dimensions. More precisely, it was mentioned in that Chapter that Standard (6) Learning Resources (i.e. libraries, access to electronic and other references, IT facilities, etc.) has the highest influence on SERVQUAL dimensions and that Standard (7) Facilities and Equipment (Housing) has a weak correlation to SERVQUAL Dimensions.

In the light of this, together with what has been discussed in this comparative analysis, the following conclusion can be drawn:

Makkah CC's low performance in service quality was affected by its low performance on QAS. All of the standards affecting service quality (6, 9, 4, 2, 1 and 3 respectively) of Makkah CC were below the average. Standard 6, that has the highest influence over service quality, was the third lowest standard of the 11 in Makkah CC. As all the Standards (6, 9, 4, 2, 1 and 3 respectively), that have been proven to influence service quality, were below the average in Makkah CC it is not surprising that four out of the five service quality dimensions there have quality gaps (from Faculty perception). The high performance of Makkah CC on standard 7, has no effect on service quality as it was unfortunately discussed in Chapter 6 to be of weak correlation to service quality. This has resulted in Makkah CC having four gaps, two of which are large, which show that it performed lower than all the other ten CCs.

On the other hand, Madinah CC's performance on service quality was better than that of Makkah CC. Although Madinah CC has three gaps none of them are large, and may be easier to deal with in comparison to Makkah CC and the other CCs sample. Moreover, Madinah CC has experiences better than expectations in two dimensions, Assurance and Empathy. The score it achieved in Standard 6 that has the highest influence over service quality was exactly 5.09 out of 7. It could be said that enhancing the performance of Madinah CC on that standard can help in improving the whole performance, which can eliminate the gaps

Madinah CC is having. This can be applied not only for Madinah CC but for all CCs in KSA.

In conclusion, the final discussion provides other evidence to the correlation between QAS and service quality and the influence that QAS have over service quality dimensions. It has shown how the low performing CCs can be analyzed and how to reduce performance gaps. It provides also a way to look deeply into issues impacting both QAS and service quality.

5.5 Chapter (5) Summary

In this chapter three separate analyses were conducted using SPSS. The first analysis was for measuring service quality and its five dimensions from the perspectives of students, faculty and top managers. A general comparison between the ten CCs on the five dimensions of service quality and other two comparisons between the ten CCs on the five dimensions of service quality from the perspectives of both students and faculty were conducted. This chapter also reviewed the gender disparities in sample responses.

The second analysis was conducted measuring QAS application. As both the QAS 30 questions of Faculty and the interviews of Top Managers and Faculty were about QAS application in CCs in KSA, they were analyzed together. It sort to find an explanation for different levels of QAS achievement in different CCs. Finally, the data from both sets of survey data was analysed to establish the correlation between specific QASs and the Five Dimensions of SERVQUAL.

These two analyses were applied to answer two out of the four research questions RQB1:(What is the current situation of QM and service quality in CCs within the KSA?) and RQB2:(what are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best



practice?). The answer of RQB1 was totally answered in this chapter, while the answer of RQB2 has been partly answered and will be completed by the end of chapters 6 and 7.

The next chapter is the discussion and conclusion of the whole thesis. It will interpret results and findings, relate them to the research aims and research questions, explain implications and make suggestions for future research. It will discuss the RBV theory and its role in clarifying the differences between firms (e.g. CCs) in the same field. It will review the effectiveness of the research approach taken, discuss briefly the current QM in CCs in KSA and the analysis and interpretation of the quantitative and qualitative data obtained by the research instruments. It will summarize the results of factor analysis and explain the correlation between QAS and the five Dimensions of SERVQUAL. Then it will present policy recommendations, limitations, areas for future research and concludes with conclusion.

Chapter 6: Discussion and recommendations:

This chapter presents the interpretation of results and findings, relates them to the research aims and research questions, explains the implications and makes specific recommendations in relation to improving service quality in CCs. It present the role played by RBV in differentiating between the performance of firms from the same industry. i.e. differentiating between CCs performances in this research.

This chapter reviews the effectiveness of the research approach used, revisits the research aims and questions, and provides an interpretation of the quantitative and qualitative data obtained by the research instruments. It summarizes the results of factor analysis and explains the correlation between QAS and the five Dimensions of SERVQUAL. Then it presents policy recommendations, limitations, areas for future research, and draws conclusions.

The original aims of the research were to:

1. Investigate relevant research and requirements for a successful application of service quality in HEI generally, and in CCs specifically.
2. Identify current QM in Community Colleges (CCs) in the Kingdom of Saudi Arabia (KSA) through empirical measurement of service quality.
3. Analyse and compare the situation of CCs in KSA, to the Quality Assurance Standards (QAS) of the Saudi National Commission for Academic Accreditation & Assessment (NCAAA), both nationally and internationally.
4. Understand the relationship between the achievement of QAS and the perception of service quality.
5. Suggest policy recommendations, adapted to the Saudi context, to apply and enhance QM and service quality in CCs in the KSA.

The following research questions sought to address these aims, and were:

A. What are the requirements recommended by the existing literature for:

- 1) measuring service quality
- 2) enhancing QM and service quality

in the HEI and CC sectors? How can they be applied and what are their limitations?

B. What are the most appropriate policy recommendations for enhancing service quality through effective QM in CCs within the KSA according to the QAS of the Saudi NCAAA?

- 1) What is the current situation of QM and service quality in CCs within the KSA?
- 2) What are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?

In answer to the first question and its two sub-questions RQA1 and RQA2, secondary research took place to examine source material already available in the public knowledge base. Drawing from relevant literature it was found that the service quality via its tool SERVQUAL, was the a good approach for measuring the performance of service organizations including HEI after the needed adaptation and when used with other quantitative or qualitative tools. It was found also that the RBV theory can be usefully used for differentiating between the performance of firms from the same industry. i.e. differentiating between CCs performances in this research. A clarification of that theory will be provided in the following.

6.1 Resource-based view RBV

In order to clarify the construct meaning, the meaning of firm resources should be clarified first.

What is meant by resources? As Wernerfelt (1984, p.172) stated that a firm resource is any strengths or weaknesses of a firm. Resources are any “tangible and intangible assets which are tied semi permanently to the firm”, in which a firm will try its best to use in order to make the firm gets the best possible return, which in turn leads the firm “directly or indirectly” (See also: Mahoney & Pandian, 1990; Bryson *et al.*, 2007) to gain competitive advantage against other competitors (Heine & Rindfleisch 2013; Perrigot & Pénard, 2013).

Resource based view (RBV) concentrate its focus on “value and inimitability” (Hoopes *et al.*, 2003, p.890) of resources. According to Barney, (1991, p.206) “firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness”.

According also to Barney (1991) for resources to hold competitive advantages they need to have four features: (1), they should be valuable so the firm can take advantage of opportunities and/or avoid threats in the firm’s context, (2) resources should be rare and not available to other competitors, (3) inimitable, so it is just controlled by the given firm only, and finally, (4) non-substitutable, so none of the firm’s competitors can provide a substitute for that resource (Barney, 1991). See also: (Mahoney & Pandian, 1990; Heine & Rindfleisch, 2013).

Priem & Butler (2001) differentiated between the resources four features suggested by Barney (1991) by stating that if the firm’s feature is rare and valuable then the feature is a resource that can provide the firm a competitive advantage. If the resource that gave the firm a competitive advantage is difficult to imitate and is not able to be substituted, then that resource can afford the firm sustainable competitive advantage (Priem & Butler, 2001). Heine & Rindfleisch, (2013) shared the same point of view of differentiating between the four features of resources suggested by Barney (1991).

According to that, it can be said that a firm is equivalent to a collection or a set of resources that the firm owns (Das & Teng, 2000; Perrigot & Pénard, 2013). By the unique resources the firm have, its competitive position can be determined (Rumelt, 2003).

RBV theory rises a main research question: “Why do firms in the same industry vary systematically in performance over time?” (Hoopes *et al.*, 2003, p.889), (see also: Kraaijenbrink *et al.*, 2010) and the answer is resources and the capabilities for utilizing them (Heine & Rindfleisch, 2013).

RBV plays an important role by providing an explanation of the performance differences between firms or organizations (Mahoney & Pandian, 1990; Hoopes *et al.*, 2003; Espino-Rodríguez & Padrón-Robaina, 2006) and the differences of competitive advantages of firms (Matthews & Shulman, 2005).

Sirmon *et al.*, (2007) emphasized that these resources have to be managed successfully to create capabilities that in turn create and maintain value for both customers and owners. See also: (Matthews & Shulman, 2005; Henard & McFadyen, 2012). For a firm, creating value starts by providing value to consumers. If the firm is providing better value to its customers more than its competitors it gains a competitive advantage, which in the long run will increase the firm owner’s profits (Sirmon *et al.*, 2007; Gronroos, 2007). As a result, it can be said that “value creation occurs when a firm exceeds its competitors’ ability to provide solutions to customers’ needs, while maintaining or improving its profit margins” (Sirmon *et al.*, 2007, p.273). See also: (Kleinschmidt *et al.*, 2007).

6.1.1 Criticism against RBV

Although RBV emphasizes that gaining competitive advantage for a firm is linked to the possession and successful utilization of firm resources (Mahoney & Pandian, 1990; Colbert, 2004; Henard & McFadyen, 2012), it does not provide enough recommendations for

'regaining' competitive advantage or to make a declining firm rise up again (Heine & Rindfleisch, 2013).

Another criticism is that the RBV points to 'what' not 'how'. It rises the most important things that can make a firm possess and sustain competitive advantage by its resources that is valuable, rare, inimitable and non-substitutable and by exploiting capabilities "to take advantage of specific markets' opportunities"(Sirmon *et al.*, 2007, p.273), which is 'what' but at the same time it does not show 'how' that can be achieved (Sirmon *et al.*, 2007; Colbert, 2004).

Cass and Voola (2011) disagree with the RBV perspective that resources are the most important aspect for having a firm's competitive advantage. They rather emphasize that firm's capabilities that give the opportunity to better use resources.

Another criticism came from Mathew (2002). He emphasized that although RBV is providing explanation of sustaining the firm current competitive advantage but it does not clarify how this competitive advantage can be created in the first place. All the theoretical efforts in RBV were to understand how firms can extend their competitive advantage instead of seeking to understand how firms created their competitive advantage in the first place (Mathew, 2002, p.481). He insisted that in reality and according to practice, resources are not totally inimitable, nontransferable or durable. He clarified that if that was the case, there would be no "diffusion of innovations, no high-technology competition". In fact firms are exploiting their resources for their own return, in the beginning of a new market, and then "disseminate them for further profit through licensing to third parties and technology transfer to affiliates"(Mathew, 2002, p.481).

However, and despite the criticism it received, RBV plays an important role by providing an explanation of the performance differences between firms or organizations in a given sector. It is there also to help firms determine their most important resources so it can



improve them to reach a sustainable competitive advantages. All the criticism it received has not eliminate these attributes that gave RBV its importance.

6.1.2 RBV in the public sector

As many theories in management, resource based view was initiated in the private sector in firms and companies. Can it be applied in the public sector?

Public organizations are not profit organizations. Their existence relates to the services they provide for public (Bryson *et al.*, 2007) not the profit they earn. Their existence depends on having the stakeholders in their environments satisfied in accordance to the stakeholders' standards. An important "key to success for public organizations is identifying and building strategic capacities to produce the greatest public value for key stakeholders at a reasonable cost" (Bryson *et al.*, 2007, p.702). Without that, public organizations cannot justify their existence and the public funds they consume (Matthews & Shulman, 2005). The RBV according to Bryson *et al.*, (2007, p.702) is the "dominant approach to strategy research and teaching in North America and Europe — explicitly for the private sector and implicitly for the public sector". This approach presents a great opportunity for evaluating and exploring capabilities in the public organizations (Gurtoo, 2009). Like private sector firms, public organizations should have resources and capabilities (Matthews & Shulman, 2005) and should manage them well in order to achieve their missions successfully. Public organizations also compete with other public organizations (Matthews & Shulman, 2005) in order to get more governmental funds, to satisfy their stakeholders or to justify generally their existence.

As RBV is providing an explanation of the performance differences between firms in the private sector (Mahoney & Pandian, 1990; Hoopes *et al.*, 2003), it can play the same role for organizations in the public sector also (Matthews & Shulman, 2005). It could be said that

“Managers in both public sector and private sector firms focus on sustainable competitive advantage, using the resources and capabilities of their organisation and their coordination and application” (Matthews & Shulman, 2005, p.10).

6.1.3 RBV in Higher Education

Although the RBV was developed in the private sector or profit firms, it can be also applied in the public sector generally and in higher education specifically (Powers and McDougall, 2005). The resources identified in firms in private sector can be found in the higher education institutions (Lynch & Baines, 2004). The higher education environment does also have competition between higher education institutions and their peers (Powers and McDougall, 2005) nationally or internationally. “Universities compete for research funds, star faculty, and for top-quality students, at least among institutions seeking to advance their reputations for excellence” (Powers & McDougall, 2005, p.295). The national and international ranking plays the same role in enhancing competition between higher education institutions in a market alike environment (Powers & McDougall, 2005). The RBV theory can be generalized to any other similar context as Mahoney and Pandian (1990, p.26) clarified, the RBV provides “an illuminating generalizable theory of the growth of the firm”.

This research is using RBV in order to provide an explanation of the differences of performances among organizations in the higher education (e.g. CCs). It was used to understand the differences of between the low performing and the high performing CCs in this study. As long as those organizations are meeting the criteria of RBV as they have resources capabilities and management in a competitive environment. From this aspect all the criticism mentioned above is out of what this research is using the RBV for.

The second question and its two sub-questions (RQB1 and RQB2) were answered by the primary research conducted to establish service quality and QAS through surveys, and analysis on these and in relation to their relationship to each other. The former data was obtained through questionnaires to the main three categories of CCs, Students, Faculty and Top Managers, to measure their perception of service quality, using the service quality instrument SERVQUAL. The latter through questionnaires and interviews of Faculty Staff and Top Managers

Quantitative and qualitative analyses were undertaken to understand the current situation of QM (in relation to QAS) and service quality in CCs within the KSA, and to identify how QAS can influence service quality. The findings from this and the policy recommendations derived from them are discussed and presented in this chapter.

6.2 Reviewing the effectiveness of the research approach taken

This research has obtained its primary data by applying a mixed-methods research approach: both **quantitative** and **qualitative**, to derive the benefits of using both methods to answer the research questions. These two methods were used to provide more valid and reliable results, and to avoid the weaknesses of each method and its tools.

The main quantitative tool used was SERVQUAL designed by Parasuraman *et al.*, (1988). It measures the five dimensions of service quality: Tangibility, Reliability, Assurance, Responsiveness and Empathy. The meaning of these dimensions in HE and according to Parasuraman *et al.*, (1988) is as follows:

Tangibility is about equipment, physical facilities and personal appearance of staff (faculty).

Reliability is about the level of dependency, commitment, problem solving, sympathetic and reassuring approach, and record keeping.

Assurance is about trust between students and staff/faculty, staff/faculty politeness, and staff/faculty's adequate support and ongoing development to enable them to do their job well.

Responsiveness is about accuracy of services' timing, prompt services, willingness to help students and deducting enough time for students' services.

Empathy is about paying students individual attention, knowing students' needs, CCs having their students' best interests at heart and convenient working hours.

Using SERVQUAL made it possible to measure and identify service quality gaps in CCs in KSA, which partly addresses the research question, RQB1: *What is the current situation of QM and service quality in CCs within the KSA?*

SERVQUAL has been criticized for a range of limitations (discussed in the literature review chapter). One important limitation identified in this research was that SERVQUAL on its own cannot provide any precise understanding why service quality gaps exist, or how they might be reduced, which made it difficult to adequately answer RQB2: *What are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?*

In order to address that, interviews were also undertaken to obtain richer qualitative data on the situations of CCs, to obtain data from these surveys on implemented Quality Assurance Standards, to analyse the influence of QASs on service quality. Additional data collection and analysis took place, including the 30-question survey directed at the faculty on QAS application in CCs in KSA, and semi-structured interviews to obtain qualitative data on CCs. This also made it possible to measure the relationship between QAS and perceived service quality in CCs in KSA and to more fully appreciate contexts and policies that might impact on performance.



6.3 Findings about using SERVQUAL

Criticism facing SERVQUAL is that it only measures the purchase intention, it only reflects the service delivery process, or it does not cover all the required aspects of measuring conformation or disconfirmation. Therefore, it is recommended that SERVQUAL should be used together with another qualitative and/or quantitative tool. This conforms also with the findings of Zafiroopoulos & Vrana (2008).

In this research, the results obtained from SERVQUAL, the 30 quantitative questions on QAS, and qualitative interviews aligned with one another. Having what can be considered another quantitative instrument – the additional 30 questions on QAS for Faculty, interviews for Top Managers and Faculty – as well as a qualitative instrument, led to results compatible with the results obtained by SERVQUAL. This shows that SERVQUAL is a good and reliable instrument for measuring the service quality perception of customers and service deliverers in higher education institutions, which conforms with the findings of Zafiroopoulos & Vrana (2008) and Atrek. & Bayraktaroğlu, (2012).

At the same time, according to the results and findings obtained, although SERVQUAL is a very useful instrument providing more precise description about the service quality gaps, which can direct the improvement efforts, it does not provide the full picture. That is, it does not explain why gaps exist and how they can be bridged. It needs to be supported by another qualitative/quantitative tool – or both.

This is the reason for using mixed methods in this research, as explained in Chapter 3.

6.3. Results

6.3.1. Current QM in Community Colleges (CCs) in Kingdom of Saudi Arabia (KSA)

Whilst other studies have targeted students and staff – faculty members – (Zafiroopoulos & Vrana, 2008) to measure the perspective of both the service provider and customer (Czepiel, 1990); in this research, unusually, SERVQUAL was applied to three sample groups: Students,

Faculty and Top Managers, since they represent the main categories in HEI. Students are customers, and Faculty and Top Managers are the service providers. Faculty deliver the service, while Top Managers lead the whole process and represent the decision-making group (Kennie, & Woodfield, 2008).

The following lines show the results obtained by analysis regarding the five dimensions of service quality – Tangibility, Reliability, Assurance, Responsiveness and Empathy – designed by Parasuraman *et al.*, (1988).

The analysis of the results from the three categories above shows that **Students'** experiences do not meet their expectations in four of the five dimensions of service quality: **Tangibility, Reliability, Assurance** and **Empathy**. Whilst only the **Responsiveness** met their expectations, the other four dimensions have quality gaps that should be dealt with, if CCs are to deliver good Service Quality.

Having four gaps out of five shows the degrees of weakness in the quality of educational service provided in CCs in KSA, and indicates the aspects or dimensions to be focused on, in developing the educational service in CCs.

From another perspective, **Faculty** are also not satisfied with the educational service provided in CCs in KSA, because three dimensions out of five were lower than what they expected. These dimensions are: **Tangibility, Reliability** and **Assurance** respectively. These three gaps are the same as those from the Students' perspective – with the addition of **Empathy** in students' results. This provides more evidence that the students' results are reliable, since they have the same results the faculty have. Since **Empathy** is about CCs paying students individual attention, knowing students' needs, having their students' best interests at heart, and convenient working hours, the question might be asked: why did students' responses evidence a quality gap in this dimension, while faculty didn't?

This question is answered in Chapter 4, but can be summarized here by stating that the different perception of Empathy from students and faculty may be due to the different angles take on Empathy. Faculty focus on overall service delivery to the student body, while students focus on customized services to individuals. Faculty look to what provision exists, while students draw attention to what they lack. It appears that Faculty do not appreciate this aspect of the service they deliver, which calls for raising awareness about service quality dimensions and their importance in enhancing the educational services in HEI.

Finally, it is the customer who should be satisfied overall, not the service provider, if an organization wants to know they have good service quality.

No gaps were found in the Top managers' analysis, as evidenced by the fact that the mean results of their expectations and experiences are nearly the same. This might be due to the low expectations they have. On the one hand, Top Managers are perhaps more aware of what is possible for CCs to achieve and what is not, so they may not demand or expect what they cannot get. In addition, they are responsible for managing the delivery of the educational service in CCs to their customers (i.e. students), so they may not want to criticize their performance; however, according to their responses, to some extent they seem to some extent not aware of the real problems Faculty and Students are suffering from, that fact needs be taken into consideration by stakeholders and researchers.

Students in the educational services represent customers who should be satisfied by the service provided. The Faculty of CCs in KSA share the same view as students, demonstrating three gaps out of the four that students raised. In conclusion, CCs have four gaps in the services they provide to their students, which are: Tangibility, Reliability, Assurance and Empathy. In order to enhance their services, to be of good quality, and to satisfy their students, faculty and stakeholders, CCs

should bridge these quality gaps. How this might be achieved will be detailed in the policy recommendations section.

Anderson (1995) mentioned in her findings that Responsiveness and Reliability are the most important dimensions for students. Abili *et al.*, (2012) also found that Responsiveness is the most important dimension, and that it had the largest gap from the students' perception; however, both studies found quality gaps in all five dimensions from the students' perception – a conclusion to which this research's findings mostly conform. Shekarchizadeh *et al.*, (2011) also found that students are not satisfied with the educational services provided to them., Together with Empathy, Tangibility was determined to be the most important dimension of perceived quality in HE, as mentioned by Calvo-Porrá *et al.*, (2013). From faculty perception, Zafiroopoulos & Vrana (2008) found gaps in all quality dimensions. This supports the validity and reliability of this research's findings, since these studies used similar instruments and got similar results, while they were applied in different times and places.

6.3.1.1. A comparison between the ten CCs

A comparison between all CCs from the perspective of Students and Faculty is presented in the following lines.

Student:

It was discovered that all ten CCs have gaps in **Tangibility**: equipment, physical facilities and personal appearance of staff (faculty), and **Reliability**: the level of dependency, commitment, problem solving, sympathetic and reassuring and records keeping.

Of these, **Reliability** has the worst performance of the five dimensions, since it has gaps in all ten CCs, with six particularly large gaps. **Tangibility** comes next, as it has gaps in the ten CCs, with three large gaps.

Responsiveness has the best performance of the five dimensions as five CCs out of ten have no gaps, and three of them have experiences

better than expectations. **Empathy** comes next, since it has four CCs out of ten with no gaps, and three of them have experiences better than expectations.

Assurance is in the middle of the five dimensions, as it has one CC out of ten with no gaps; however, three of the nine gaps are large ones.

Huraimila CC and Madinah CC topped the ranking, while Makkah CC was the last in the students' ranking of CCs in performance.

Faculty:

It can be seen from the data analysis that all the ten CCs have gaps in Tangibility, Reliability and Assurance. **Tangibility** was the worst performance, since it has gaps in all ten CCs, with two CCs having large gaps. **Reliability** comes next, with gaps in all ten CCs, with two CCs having large gaps; however, its gaps are smaller than those of Tangibility. **Assurance** is the third worst dimension, as it has gaps in all ten CCs, without any of them being large gaps.

Responsiveness has the best performance out of the five service quality dimensions. Seven CCs out of ten have no gaps in Responsiveness, and six of them evidence that experiences were better than expectations. **Empathy** comes next, with five CCs out of ten having no gaps, three of them with experiences proving better than expectations.

According to faculty, Huraimila CC and Jazan CC have gaps in all of the five dimensions, with one large gap for each of them. Makkah CC has the worst situation of the ten CCs, because of the two large gaps it has in Tangibility and Reliability, although it has experiences better than expectations in Responsiveness.

6.3.1.2. Comparing Students and Faculty to each other

By comparing the results of the two categories: Students and Faculty, it can be seen that the dimensions **Tangibility, Reliability** and **Assurance** have gaps for both categories. The performance of the other

two dimensions: **Responsiveness** and **Empathy** is better than the other three.

Skaka CC and Madinah CC have the highest performance out of the ten CCs. The biggest variation of results was in Huraimila CC, as it varied from the rank of eighth in the Faculty table, to number one in the Students' table. Makkah CC has the worst performance of the ten CCs, as it obtained the last ranking according to both categories. From the students' point of view, the situation at Makkah CC is even worse, as it has gaps in all five dimensions – and four of them are large gaps. A special, detailed comparative analysis of Makkah CC was presented in the Results Chapter.

The consistency of results and findings across the whole sample of CCs regarding gaps in service quality dimensions show that the instruments used are reliable (Kimberlin, & Winterstein, 2008).

As can be seen in table 27, according to their scores, the QAS that mostly affect Tangibility and Reliability are: Learning Resources; Learning and Teaching; Governance and Administration; Employment Processes and Mission; Goals and Objectives. Since these two dimensions – Tangibility and Reliability – have the largest gaps in all the sample CCs, the consistency of findings in each CC indicate that these standards are applied weakly in CCs in KSA.

The differences in each individual CC's results or ranking can be attributed to the domestic issues of each CC.

6.3.2. A comparison of CCs measured against QAS

The Faculty Member (FM) survey questionnaire, questions 23-52 (30 questions), previously mentioned in detail in Chapter 4 were designed in light of NCAAA's (2011) eleven standards for QAS of HEI, and were administered in addition to conducting qualitative interviews with participant Top Managers (TM) and FM mentioned also in that chapter. Based on the statistical results, the current status of Saudi CCs can be summarized as follows. Overall results show that:

First, Saudi CCs already have mission, goals and objectives that are closely related to each other and appropriate to their current situation in each individual college. In addition, results showed high levels of effectiveness in FM participation in their preparation. For example, one TM interviewed said of their strategic mission, goals and objectives: “We took a long time for their preparation, taking into consideration the experiences of our other counterpart Arab and foreign colleges”.

On the other side, one TM interviewed (Makkah CC) stated: “Although the correlation is evidenced, it may be relative. In other words, the formulated mission statement is relatively ideal, so that it doesn’t enable implementers to accomplish it via applied goals and objectives”. They might be well prepared but are so much idealized that they are almost impracticable.

Second, Saudi CCs already have active leadership teams, preparing suitable strategic plans. However, there is some consensus that they encounter obstacles to implementing these strategic plans in reality, and in obtaining the desired results, due to several causes: internal, external or both.

One interviewed TM considered such causes to be external in nature, stating: “There’s a strong trend towards promoting the application of strategic and operational planning processes in an excellent manner; however, there is a plethora of obstacles for human and financial resources”.

It could be said that they are not logically connected with their context.

Third, Saudi CCs largely adopt quality mechanisms. They document quality assurance guidelines for all key educational processes, and always use documented indicators and/or benchmarks for internal quality evaluation of educational performance (e.g. pass rates, course assessment stats). They regularly use formal processes for identifying

and solving quality problems in their educational provision (e.g. annual course review) and evaluate their key educational performance measures against external benchmarks. They are committed to managing their academic projects according to quality standards and are, finally, managing their projects well – but not in the scientific meaning of the word.

Overall, results indicate a very good level of commitment to quality standards in the formulation and preparation of quality systems and procedures – but has lower levels of achievement in their practical implementation. For example, the TM in Abha CC stated that the “adherence level to quality in theory reaches a maximum 90%, as the college provides training and outreach for all FM. At the same time, 50% of the Deputy Dean’s efforts are dedicated only to quality. However, final implementation on the ground doesn’t exceed 60%, at best, because of negative cultural barriers”.

Fourth, Saudi CCs are largely applying the institutional monitoring and development of learning processes (despite some barriers). They adequately monitor and evaluate students’ learning outcomes using available e-learning tools, and apply ongoing development of their learning and teaching programmes (despite some weaknesses in CCs’ infrastructure).

In addition, it can be concluded that Saudi CCs monitor and evaluate students’ learning outcomes both during and after their study period. However, they suffer from weakness in actual implementation on the ground.

In terms of teaching development, results revealed that FM receive internal and external development provided by their affiliated CCs and universities.

Fifth, Saudi CCs mostly don’t provide medical services. Instead, they usually adopt a referrals mechanism allowing students to receive

required medical treatment at university hospitals, or at any public hospital in various nearby towns or cities.

However, results showed that social services are provided by Saudi CCs to an adequate degree. In addition, approximately two-thirds of respondents stated that student services are effectively applied, either those provided by the university's central provision, or internally in their affiliated CCs.

Notably, it is important here to mention that the majority of participants indicated only the existence of student extracurricular activities, without identifying the actual number of practicing students. As a result, a certain activity may be running at a CC, but its actual participant numbers could be very limited. This was noticed from the researcher's own experience and observations of Saudi CCs and other counterpart educational institutions.

Sixth, Saudi CCs enjoy effective learning resources and provide students and FM with accessible Internet-based international databases, printing-press houses and libraries – at a high level, exceeding 70%. Furthermore, results revealed that all CCs already have academic libraries suffering from some shortcomings, in terms of a lack of recently published reference materials and provision for scientific references.

Seventh, Saudi CCs mostly do not have suitable student housing facilities, although some other counterpart colleges in the KSA are affiliated to universities that provide students with necessary housing services. A case in point here is that the Dean of Madinah CC regretted that his CC and the entire university don't provide housing services: "although they are necessary, especially for those students coming from other areas".

For premises and infrastructure supplies, FM and TM interviewed expressed positive opinions, showing that CCs' premises generally enjoy good conditions and are well-equipped with all or most required



supplies. However, they also revealed that CCs' premises are mostly rented, old and lack educational design aspects.

Eighth, Saudi CCs' available financial resources are considered sufficient, to an extent. However, CCs don't have the potential for budget allocation to the levels deemed suitable for the fulfillment of their various needs. As highlighted by a TM interviewed, "our CC doesn't have the authority to develop its own resources, despite the availability of adequate financial resources, due to the university's imposed constraints".

However, the strongest criticism in such regard was expressed by another FM who indicated that his CC lacks adequate financial resources for supporting the fulfillment of all its needs, non-curricular activities and active participation in local community service.

Ninth, Saudi CCs mostly adopt efficient employment processes. These include FM and administrative staff members' annual performance evaluation, recruitment, retention efforts, a preventative approach to problems, and effective solution, if any problems should occur. In addition, results showed that CCs carry out such activities in a very adequate manner. However, they suffer from limited recruitment potential, owing to the approved centralized recruitment and employment processes which are provided by specialized university committees. As a result, CCs' only role focuses on clarifying needs and qualifications required for either recruited or appointed staff.

Tenth, Saudi CCs generally lack independent research policies. At the same time, most support provided and identification of research priorities is centrally managed by universities, via their Scientific Research Deanships. Besides, results show that the major research role played by CCs is to encourage and support researchers to do their research, and make full use of the various facilities and support provided by universities for researchers at all their affiliated colleges. Finally, participants expressed a strong consensus that scientific research isn't, in general, on CCs' agenda of top priorities. For example, the Deputy

Dean of Jazan CC stated that “CCs don’t usually focus on scientific research”.

This was supported by the literature, in which it was mentioned that CCs in USA are teaching-oriented, rather than research-oriented, which in turn made their tuition fees lower than other HEI (Cohen & Brawer, 1987; Hilmer, 1998; Mykerezzi *et al.*, 2009; Marcotte, 2010; Teranishi *et al.*, 2011).

Notably, the recently formulated (Draft) Standards for Quality Assurance and Accreditation of Community Colleges established by Universities (NCAAA, 2012, forthcoming) excluded the Research standard, considering it not applicable to CCs.

Eleventh, Saudi CCs mostly enjoy strong relationships, communication and collaboration with their local community; however, results concluded that there are no written policies or statements regarding participation with the community; thus providing an indication of the informal status and presence of such relationships, even though they aren’t institutional by nature. A case in point here is something mentioned by an Abha CC (female CC) TM, that their CC “lacks strong communication channels with the local community”.

It can be concluded from the results in Chapter 4, table 31, from the majority of FM survey respondents, the overall score for Saudi CCs’ implementation of NCAAA’s standards (QAS) is **5.09** out of a total of 7.00 (i.e. **73%**) according to the means measured for all 30 questions.

Notably, the Mission, Goals and Objectives standard came first at the top of the standards list in terms of practical implementation, followed by both Facilities and Equipment (Housing) and Learning and Teaching, which came second and third respectively, with a 4.56-5.47 average range of the total 7.00 (i.e. in the 65-78% statistical scores range).



It can be concluded also that although QAS are related to service quality dimensions, as clarified in this chapter, they are not applied efficiently. More development efforts are needed to apply QAS more successfully, and efforts are also needed to enhance the service quality and bridge the quality gaps.

6.3.3. Factor analysis of QAS

Factor analysis was used in this research to reduce the number of QAS (11 standards) and to group them into a smaller number of factors according to their concepts. This has resulted in three factors that were shown in table (26) in Chapter 5, which will be clarified later in this chapter.

The factor analysis was applied on the 11 QAS for the Faculty questionnaires only, since Faculty are responsible for applying them, according to the NCAAA. The students are not able to provide any responses to these issues, and the top managers' general responses were obtained via interviews.

30 questions in the Faculty questionnaire were raised to cover the 11 QAS standards. The distribution of these questions was built upon points raised by NCAAA in each of the QAS. Each point was covered by a question.

The factor analysis was very useful since it reduced the number of QAS by grouping them into 3 factors and showed the most influential QAS affecting service quality dimensions.

6.3.4. Variability in effectiveness of QAS in different CCs:

MANOVA test for multi variations was used in order to measure the groups' differences.

The ten CCs, excluding Makkah CC, are to some extent successfully applying all QAS, as they achieved, in general, higher than 3.50 – which is the average score (since the scoring range used is 1-7). They achieved between 4.66 (in Huraimila CC) to 5.91(in Madinah CC).

Makkah CC is below the average. It achieved 3.17, while the average is 3.50. Its scores ranged between 1.29 and 6.79. Makkah CC has

very crucial problems in standards 4, 2, 6, 11, 1, 9, 8, and 3 respectively. Having 8 out of 11 below the average shows how low is Makkah CC performance in QAS. The interesting thing to be noted here is the high score in Standard 7 – Facilities and Equipment (Housing) – that Makkah CC scored by achieving 6.79 out of 7, since this is the highest score in all ten CCs. Unfortunately, this standard was proven to be of weak influence on CCs overall performance. This has been discussed in detail in section (5.4.2.1).

6.3.5. The correlation between QAS and service quality as measured by SERVQUAL

As mentioned in the literature review, Quality Standards are related to service quality and, when effectively applied, play an important role in obtaining and maintaining good service quality.

Research Question 2B is about enhancing QM and service quality in CCs in KSA to a standard comparable with international best practice. HEI (including CCs) in KSA are applying QAS in order to enhance QM at the local level, whilst SERVQUAL is an international tool for measuring service quality. Both service quality and QAS were measured in this research, in order to investigate to what extent QAS are successfully applied in CCs in KSA, and how good service quality is.

Other questions were generated: Do QAS correlate with SERVQUAL? Can applying QAS successfully influence SERVQUAL?

It was mentioned that there is an assumption that Quality Standards will lead to increased performance of service quality. It has certainly been hypothesized that the implementation of QAS has a positive influence on service quality. That is, applying QAS successfully will lead to a good service quality, and vice versa: failing to apply QAS well will lead to quality gaps. This link and its hypothesis were tested in this research and its results will be clarified as follows.

Service quality is represented by its five dimensions (Tangibility, Reliability, Responsiveness, Assurance and Empathy) called SERVQUAL, as mentioned previously. One of the most common correlation measures

is Pearson (Bryman & Cramer, 2009), which has been applied to measure the correlation between QAS and SERVQUAL dimensions.

The results revealed that SERVQUAL dimensions are influenced by QAS. Assurance came first, and then Empathy, Tangibility, Reliability, and Responsiveness, respectively.

It is logically accepted that Assurance should be the first influenced by QAS, as the QAS are directly pointed towards Quality Assurance.

The following chart depicts the SERVQUAL dimensions and their effect or influence rate by QAS:

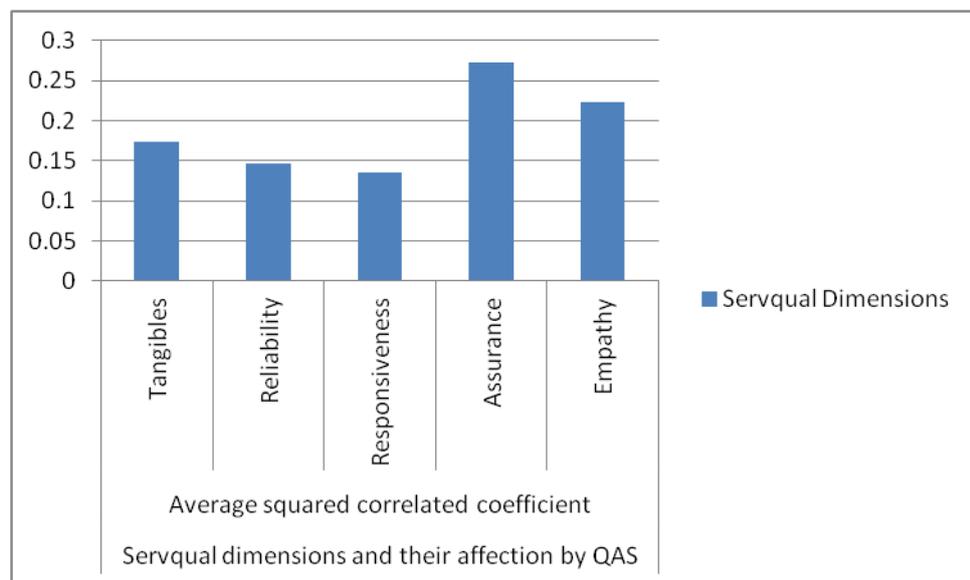


Figure (42): influence of QAS on SERVQUAL

For QAS, the standards that most affect SERVQUAL are ranked as follows: (6) Learning Resources, (9) Employment Processes and (4) Learning and Teaching, followed by (2) Governance and Administration, (1) Mission, Goals and Objectives, (3) Management of Quality Assurance, (11) Relationships with the Community, (5) Student Administration and Support Services, (8) Financial Planning and Management, (10) Research and (7) Facilities and Equipment (Housing) respectively.

The highest effect between QAS and SERVQUAL was the effect of (6) Learning Resources (from QAS) on Assurance (from SERVQUAL),

while the lowest correlation was between (8) Financial Planning and Management (from QAS) and Reliability (from SERVQUAL).

The correlation between QAS and service quality was also proven by the previously presented comparative analysis, conducted to make a comparative analysis between the lowest performance CC – Makkah CC – and the highest performance CC – Madinah CC – to understand reasons for low performance in quality management. The comparative analysis provided evidence of the correlation between the two, and showed the influence that QAS have over service quality dimensions.

As a result, it could be said that all the SERVQUAL dimensions are covered by QAS. Generally, applying QAS successfully will lead to enhanced service quality, which in turn will reduce or eliminate quality gaps and guarantee better service. This indicates that there are correlations between QAS and the five Dimensions of SERVQUAL; however, it should be borne in mind that some dimensions are less affected than others by QAS. This can be seen in the two dimensions with the larger gaps: Tangibility and Reliability, since they were the third and the fourth of the five dimensions affected by QAS, as shown in figure 42. This will be clarified later.

The results of the above came in line with the results (Table 26, in chapter 5) of QAS after factor analysis. The first six standards formed the first of the three factors which resulted after factor analysis. The results validate the factor analysis output and show that the first factor (after factor analysis) has the standards with the highest effects that influence SERVQUAL.

More precisely, Standard (6) Learning Resources (i.e. libraries, access to electronic and other references, IT facilities, etc.) has the highest influence on SERVQUAL dimensions, which calls for more concentration and focus on that Standard, especially. The more this standard is improved, the more service quality will improve. The importance of Learning Resources for students in Higher Education was emphasized by Mai (2005), Douglas *et al.*, (2006) and Coskun (2014).

Standards (9) Employment Processes (attracting and retaining qualified teaching staff (faculty), evaluating teaching and other staff), (4) Learning and Teaching (Specified students learning outcomes, “Teaching staff must be appropriately qualified and experienced for their particular teaching responsibilities”, (NCAAA, 2009a)), (2) Governance and Administration and (1) Mission, Goals and Objectives, came respectively after standard (6).

Standards (3) Management of Quality Assurance and (11) Relationships with the Community came secondly, (5) Student Administration and Support Services, and (8) Financial Planning and Management came third while (7) Facilities and Equipment (Housing) and (10) Research are the least influential standards on SERVQUAL dimensions.

The correlation between the standard Research, (in the least influential QAS on SERVQUAL dimensions), and SERVQUAL Dimensions is very weak, which is also in line with Chapter 5, on the analysis of questions (48, 49 and 50), where the quantitative and qualitative results revealed that Saudi CCs mostly lack independent research policies and that research is centrally managed by the universities to which each CC is affiliated. In addition, those results revealed that scientific research is not, in general, on the agenda of CCs’ top priorities, because CCs are instruction-oriented colleges.

Standard (7) Facilities and Equipment (Housing) and its weak correlation to SERVQUAL Dimensions remains unclear. Douglas *et al.*, (2006) mentions that the physical aspects of facilities are not important from the students’ perception, which can provide an explanation for its weak correlation to SERVQUAL Dimensions. In the comparative analysis presented previously, it was clarified that this standard has no effect on students’ satisfaction. The highest score of that standard was obtained by Makkah CC (6.79 out of 7) the CC evidencing the lowest satisfaction of all the sample CCs. It has gaps in all of the five dimensions of service quality – and four of them are large, from the students’ perspective.

However, it can be concluded that the hypothesis that QAS have a positive influence on service quality was partly proven to be correct. This applies to standards 6, 9, 4, 2, 1 and 3, since not all of the QAS influence SERVQUAL dimensions, as explained.

6.3.6. Identifying how best to address service quality gaps in CCs in KSA

From the Students' points of view, Tangibility (equipment, physical facilities and personal appearance of staff i.e. faculty) and Reliability (the level of dependency, commitment, problem solving, sympathetic and reassuring and records keeping) are the first two gaps out of four gaps in service quality in their CCs. These two dimensions were also found to have quality gaps in all ten CCs (i.e. the whole sample).

From the Faculty points of view, Tangibility and Reliability are also the first two gaps out of three in service quality, in their CCs. These two also were found to have quality gaps in all ten CCs (the whole sample).

Anderson (1995) found in her study that Reliability had the largest gap.

Figure (42), previously presented, shows that unfortunately, Tangibility and Reliability are less affected by QAS – since they were the third and fourth of the five dimensions most affected by QAS.

The following table shows each Dimension and its score in accordance with the influence they derive from QAS:

QAS	SERVQUAL Dimensions				
	Tangibility	Reliability	Responsiveness	Assurance	Empathy
(1) Mission, Goals and Objectives	0.508**	0.363**	0.420**	0.579**	0.633**
(2) Governance and Administration	0.511**	0.499**	0.409**	0.598**	0.564**
(3) Management of Quality	0.446**	0.374**	0.381**	0.534**	0.518**

Assurance					
(4) Learning and Teaching	0.525**	0.510**	0.373**	0.621**	0.574**
(5) Student Administration and Support Services	0.303**	0.268**	0.364**	0.504**	0.380**
(6) Learning Resources	0.523**	0.543**	0.457**	0.682**	0.568**
(7) Facilities and Equipment (Housing)	-0.115	0.061	-0.153	-0.069	-0.006
(8) Financial Planning and Management	0.378**	0.217**	0.249**	0.303**	0.278**
(9) Employment Processes	0.462**	0.483**	0.477**	0.658**	0.563**
(10) Research	-0.172*	-0.125	-0.241**	-0.334**	-0.204*
(11) Relationships with the Community	0.393**	0.395**	0.374**	0.515**	0.482**

*Significance at (0.05). **Significance at (0.01).

Table 27: The correlation between QAS and SERVQUAL, has been shown in page 171.

From all of the above, it can be concluded that the two dimensions – Tangibility and Reliability – are less affected by QAS, and have the largest gaps in service quality in CCs in KSA. Improvement efforts in CCs in KSA should be directed and focused on these two dimensions and the QAS affecting them.

Despite that, table (27) shows that according to their scores, Learning Resources, Learning and Teaching, Governance and Administration, Employment Processes and Mission, Goals and Objectives are the QAS most affecting Tangibility and Reliability. These are the standards CCs should concentrate on to fill the two quality gaps in Tangibility and Reliability.

Interestingly, the factor analysis linked all of these standards together in one factor, which suggests that they are all interrelated.

Since Learning Resources and Learning and Teaching have the highest impact on service quality dimensions, CCs should concentrate on them and give them top priority on their implementation agenda.

This conforms with the findings of Mai (2005), Douglas *et al.*, (2006), Petruzzellis *et al.*, (2006), Gibson (2010) and Coskun (2014).

6.4. Policy Recommendations (PR)

Policy recommendations are built upon the research findings (Emerson, 2005). Before making each policy recommendation, the points forming it should be called and kept in mind (Emerson, 2005). It is intended that stakeholders and researchers in quality management in HE in KSA should be presented with recommendations, built upon evidenced results out of empirical data, on what needs to be done, according to the findings.

Policy recommendations are directed at stakeholders to inform them of the actions necessary to improve quality management and raise quality standards. They are also directed at researchers to describe the main findings that could lead to future research in the field of QM in CCs in KSA specifically, for HEI in KSA generally, or for HEI internationally.

The major findings and the policy recommendations resulting from them are mentioned in conclusion, below.

The following policy recommendations can be stated:

PR1: It is a recommendation to apply mixed methods to measure service quality in CCs and HEI generally. Additional to collecting service provider and customer data, other methods should be employed, such as monitoring, observation and studying previous performance reports to give a clearer picture and better understanding of the status of service quality.

PR2: In order to improve their services to be high quality, and to satisfy their students, faculty and stakeholders; CCs should bridge the four quality gaps from students' points of view, as they are the customer in this service. One approach for helping to achieve that is mentioned in the comparative analysis, in section (5.4.2.1).

PR3: The lack of awareness of Top Managers – judging by the variation of their responses, different from Students and Faculty – needs to be taken into consideration by HEI authorities, since Top Managers

may resist improvement and positive change, or they may not support the efforts effectively.

PR4: There is a need to spread awareness among the three categories (students, faculty and top managers) of service quality dimensions and their importance in improving the educational service in HEI.

PR5: Other CCs may have the same situation as Makkah CC, calling for a thorough check of the service quality status of all the CCs in KSA. What has been discussed and concluded in this research generally, and in section (5.4.2.1) specifically, can help in that concern.

PR6: Gaps should be met in the standards: Learning Resources, Learning and Teaching, Governance and Administration, Employment Processes and Mission, Goals and Objectives. These, according to their scores, are the QAS mostly affecting Tangibility and Reliability. Since these two dimensions have the largest gaps in all the sample CCs, the consistency of findings in each CC indicates that these standards are weakly applied in CCs in KSA. From the points of view of both students and faculty, Tangibility and Reliability were found to have quality gaps in all the sample of CCs. At the same time they are less affected by QAS.

PR7: QAS should be applied to service quality dimensions more efficiently in practice – and not just in theory. The majority of FM survey respondents indicated an overall score for Saudi CCs' implementation of NCAAA's standards (QAS) of **5.09** out of a total of 7.00 (i.e. **73%**).

Assurance is the standard most influenced by QAS – and is logically the QAS directly related to Quality Assurance. However, it is also suffering from a quality gap. SERVQUAL dimensions are covered by QAS but not strongly enough.

PR8: Development is needed to apply QAS more successfully, and more efforts is needed to enhance the service quality and bridge the quality gaps. Tangibility and Reliability and the QAS affecting them should be given top priority on the implementation agenda.

PR9: More concentration and focus on the application of Standard (6) Learning Resources (i.e. libraries, access to electronic and

other references, IT facilities..etc.) is required, since it has the highest influence on SERVQUAL dimensions.

PR10: The correlation between the standard Research and SERVQUAL Dimensions is very weak, as scientific research is not, in general, in CCs' top priorities. CCs are instruction-oriented colleges.

As this standard is not applicable for CCs it is recommended that CCs should be excepted from the application and measurement of that standard, unless there is to be a massive cultural change and prioritization of research within CCs.

PR11: In order to maintain reliable and accurate data for official statistics, CCs' basic data should be gathered professionally and accurately and the official reports or statistics of the MOHE should be built upon accurate, current data.

These Policy Recommendations are built upon the research major findings, which represent an answer of the RQB2:(what are the necessary requirements for enhancing QM and service quality in CCs within the KSA, to a standard comparable with international best practice?). Since PR were built upon results obtained by analysis of an international instrument for measuring service quality i.e. SERVQUAL, quantitatively and by analysis of interviews qualitatively.

Chapter 7: Conclusion

This research enhances understanding of Quality Management in the context of HEI generally and Community Colleges (CCs) specifically. It explores the service quality situation and the application of Quality Assurance Standards (QAS) in CCs in KSA. It demonstrates the correlation between QAS and service quality and the influence that QAS have over service quality.

This research explores the importance of measuring service quality for HEI, including CCs; the effectiveness of using SERVQUAL along with other quantitative and qualitative instruments, and the importance of measuring the perception of both the service provider and the service consumer or customer. The three categories targeted in this research were students, faculty and top managers.

In terms of management, this research presents an overview of the Saudi National Commission for Academic Accreditation and Assessment's (NCAAA's) application of QAS in its CCs, and in relation to SERVQUAL. It specifies the Students', Faculty and Top managers' perceptions of service quality and clarifies the application of QAS in CCs in KSA. It identifies the service quality gaps in a sample of CCs, specifies the most influential QASs, and provides policy recommendations for stakeholders in CCs and HE in KSA.

In the correlation between service quality and QAS, this research shows that the standards of the first factor (after factor analysis) were the most influential standards, of the 11 QAS, on service quality. More precisely, it uncovers that QAS have three levels of influence over service quality: Standard (6) Learning Resources came first, Standards (9) Employment Processes, (4) Learning and Teaching, (2) Governance and Administration and (1) Mission, Goals and Objectives, (3) Management of Quality Assurance and (11) Relationships with the Community came second. Standards (5) Student Administration and Support Services, and (8) Financial Planning and Management came third. Conversely, standards (7) Facilities and Equipment (Housing) and (10) Research are the least influential standards on SERVQUAL dimensions.

In this study, Students' experiences do not meet their expectations in four of the five dimensions of service quality: **Tangibility, Reliability, Assurance** and **Empathy**; while only Responsiveness met their expectations. Having four gaps out of five shows how weak the quality of educational service provided is in CCs in KSA, and points out the aspects or dimensions to be addressed to improve the educational service in CCs.

Faculty are also not satisfied with the educational service provided in CCs in KSA as they have gaps in three dimensions: **Tangibility, Reliability** and **Assurance**. Empathy was the only variable in the perceptions of faculty and students. It was interpreted that Faculty do not appreciate the importance of this aspect of the service they deliver.

No gaps were found in the Top managers' analysis. They seem to be according to their response to some extent not aware of the real problems Faculty and Students are suffering from, which needs be taken into consideration by stakeholders and researchers.

Makkah CC has the worst situation of the ten CCs in the sample, because of its two large gaps in Tangibility and Reliability and two gaps in Assurance and Empathy, although experiences were better than expectations in Responsiveness. Similar results may be evident in other CCs, so there are implications for a more concerted effort in raising awareness, and raising standards across CCs and HEI.

This research uncovered many problems in the basic data and information about CCs. For example, Khamis Mushait Female CC was found to be actually a male CC; Makkah female CC was discovered to be co-educational – with students of both genders; Northern Borders CC was discovered to be three CCs, not just one, and other CCs (such as Badr CC) were not mentioned. There were also differences between MOHE statistics (2012) and reports (2009). All of these discrepancies were discovered incidentally by a researcher whose aim was not to determine the accuracy of official data.

This research also recommends using other methods to measure service quality, apart from service provider and customer perceptions, such as monitoring and observation or previous performance reports, to inform future research.

In terms of methodology, this research determines how to measure the application of quality management and service quality status in the HEI context. It examines the application of SERVQUAL in the HE context and suggests the modifications needed. Then it examines the application of mixed methods, to get the best qualitative and quantitative methodologies and avoid the shortfalls of each. Unusually, SERVQUAL was applied in three categories of this research: Students, Faculty and Top Managers, since they represent the main categories in HEI. Students are customers, and Faculty and Top Managers are the service providers: Faculty delivers the service and Top Managers lead the whole process and represent the decision makers.

In terms of theory, this research investigates the literature on service quality, SERVQUAL, Quality Management, Resource Based View (RBV), CCs internationally, and CCs and HE in KSA. It uses RBV theory to differentiate between the performances of CCs, which can be applied to HEI generally.

It then suggests an approach – in the light of RBV theory – to understand the reasons for low performance of CCs; how to analyze the situation and determine the reasons for low performing CCs and solutions which can be applied to all other HEI.

It clarifies the picture of HEI generally, and CCs specifically, in KSA from the perspective of quality management and service quality application.

It provides clearly evidenced policy recommendations derived from empirical data, and recommendations for stakeholders and researchers for action and further research areas.

This research is very useful for those who are interested in QM, HE, CCs, and service quality in relation to assurance standards, mixed methods and SERVQUAL adapted to higher education.

Through the literature investigated, data gathered, methodology followed and through the results and findings reached, this research makes a useful contribution to knowledge. It provides valuable research for institutions in KSA and similar contexts: Arabic Gulf Countries, Arab States or other countries in the world.

7.1. Research Contribution

The contribution of this research is in its exploration into ways to measure the application of QM and service quality status in the HE context. It examines the application of SERVQUAL and the modifications required in the HE context. It evidences the benefits of applying mixed methods to derive the best from both qualitative and quantitative methodologies, while addressing the shortfalls of each. Uniquely, it demonstrates the importance of measuring the perceptions of the main three categories of internal stakeholders in CCs: Students, Faculty and Top managers. While students represent customers, and Faculty and Top managers represent the service providers and the decision makers in HEI, unusually, this has researched all three perspectives. This research also demonstrates the correlation between QAS and service quality in the HE context in KSA, and the most influential QAS upon service quality. It clarifies the picture of HEI, and CCs specifically, in KSA from the perspective of QM and the application of service quality.

In practice, this research identifies how best to address service quality gaps in CCs in KSA and informs the stakeholders and researcher through 11 Policy Recommendations for the application and improvement of QM in CCs and other HEI in KSA.

7.2. Limitations and areas for future research

Every research study has its own limitations and shortcomings that can be used positively for future research and can light the way for other

researchers (Brutus, *et al.*, 2013). This research is no exception to that norm. In this section, the research limitations will be clarified, to be taken into consideration in reading this research or before commencing further research in the same area.

The measurements in this research were taken from the perception of only three categories: Students, Faculty Members and Top Managers. This research has covered a representative sample of the CCs in KSA. Covering all or most CCs in KSA could provide a more comprehensive view. Applying the same sort of study to other types of HEI in KSA could provide a better understanding of QM status in HE. Top managers, for example, in this research were few, as the sample was only Ten CCs. If the sample was larger, the picture would be clearer. However, this was beyond the time and ability of one researcher.

The sample might have been greater in number or more varied, to include universities, government officials, students' employers, or CC business partners' perceptions. Although questionnaires and interviews were primarily used to obtain information and data, other methods such as observation, focus groups, analyzing previous reports, could provide other angles of vision to illuminate the issues.

The sample size is not as large as was intended, which may affect the generalizability of the results obtained. As discussed in the Methodology Chapter, the number of participating students for each CC was low, therefore caution must be exercised in drawing definitive conclusions at the local level.

However, because the overall sample of 196 is large and is drawn from a representative sample of CCs, generalizations about the CC sector as a whole can be made. It was also mentioned that the total number of respondents in all the research instruments is 382, chosen randomly, and apparently homogeneous either quantitatively or qualitatively, all of which factors can support the validity and reliability of the results

obtained and make generalizability acceptable (Campbell, 1955; Black, 1999; Grafström & Schelin, 2014).

The CCs official data in KSA are badly presented and need to be gathered again totally as they are out of date and are suffering from inaccuracy.

The lack of studies concerning CCs in KSA, and concerning QM in CCs specifically weakened the chance for comparing the findings of this research with others in the same context.

Other groups or ways of measuring the current status of quality management could be taken into consideration in future research. The focus of study, too might be either extended or narrowed to a particular aspect.

The view of Top Managers is very much different from those of Faculty and Students might be an area for future research – especially to discover why they don't see what the others (students, faculty) see regarding gaps in service quality.

The strategies and actions identified by this research, recommended for bridging the quality gaps and addressing the weak application of QAS, could each stimulate future research in the field of QM and service quality in HE.

References

Abili, K., Thani, F., and Afarinandehbin, M (2012) Measuring university service quality by means of SERVQUAL method. **Asian Journal on Quality** 13(3): pp. 204-211.

Academic Ranking of World Universities (ARWU) (2011) **About ARWU (Academic Ranking of World Universities)** [Online]. Available at: <http://www.arwu.org/aboutARWU.jsp> [Accessed 15 May 2011].

Aldamigh, S. (1996) Methodological pluralism: Types and Relevance to Social Sciences. **Journal of Social Sciences** 24 (4): pp. 107-125. Winter 1996. Kuwait. (In Arabic).

Alhabib, A. (2004), The Role of Community Colleges In Having Equitable Education Chances. **The Magazine of King Saud University** vol. 17. Educational Sciences and Islamic Studies. (2). (In Arabic).

Alharbi, M. (2007), **The Adaptation Between The Higher Education Outcomes and the Needs of Labour Market in Saudi Arabia**. Educational Management Department, College of Education, King Saud University. Saudi Arabia. (In Arabic).

Ali, M. and Shastri, R. (2010) Implementation of Total Quality Management in Higher Education. **Asian Journal of Business Management** 2(1): pp. 9-16.

Ali, N., Mahat, F. and Zairi, M. (2010), Testing the criticality of HR-TQM factors in the Malaysian higher education context. **Total Quality Management**. 21 (11): pp. 1177-1188.

Ali, N. and Zairi M. (2005), **Service Quality In Higher Education**. Bradford University School of Management. Bradford, UK.

Al-Khateeb, M. (2007), **Introduction to the application of standards and systems of total quality in educational institutions**. A paper presented to the 14th Annual Meeting for the Saudi Society for Educational and Psychology Sciences (GESTEN) (Quality in School Education), Alqaseem-Saudi Arabia. (In Arabic).

American Association of Community Colleges (AACC) (2008) **Community College Trends and Statistics** [Online]. Available at: <http://www.aacc.nche.edu/AboutCC/Trends/Pages/default.aspx> [Accessed 26 December 2010].

American Society for Quality (ASQ) (2010) **The History of Quality - Overview** [Online]. Available at: <http://www.asq.org/learn-about-quality/history-of-quality/overview/overview.html> [Accessed 26 December 2010].

American Association of Community Colleges AACC, (2011a) **Community College Fast Facts**. [Online]. available at: <http://www.aacc.nche.edu/AboutCC/Documents/FactSheet2011.pdf> [Accessed 16 June 2011].

American Association of Community Colleges AACC, (2011b) **Who We Are**. Online available at: <http://www.aacc.nche.edu/About/Who/Pages/default.aspx> [Accessed 16 June 2011].

American Association of Community Colleges AACC, (2014) **Who We Are**. Online available at: <http://www.aacc.nche.edu/AboutCC/Documents/WhoWeAre.pdf> [Accessed 6 June 2014].

Anderson, J., Rungtusanatham, M., and Schroedei, R. (1994) A Theory of Quality Management Underlying the Deming Management Method. **Academy of Management review**. 19 (3): pp. 472-509.

Anderson, E. (1995) High tech v. high touch: a comparative analysis of TQM implementation in higher education. **Managing Service Quality** 5(2): pp. 48-56.

Andronikidis, A., and Bellou, V. (2010) Verifying alternative measures of the service-quality construct: consistencies and contradictions. **Journal of Marketing Management** 26(5-6): pp. 570-587.

Atrek, B., and Bayraktaroğlu, G. (2012) Is There A Need To Develop a Separate Service Quality Scale For Every Service Sector? Verification Of SERVQUAL In Higher Education. Suleyman Demirel University. **The Journal of Faculty of Economics and Administrative Sciences** 17(1): pp.423-440.

Ayers, D. (2011) Community colleges and the politics of sociospatial scale. **High Education**. 62(3): pp.303-314.

Bailey, T., Calcagno, J., Jenkins, D., Kienzl, G., and Leinbach, T. (2005) **Community College Student Success What Institutional Characteristics Make a Difference?** Community College Research Center Teachers College, Columbia University. New York, USA.

Barney, J. (1991) Firm Resources and Sustained Competitive Advantage. **Advances in Strategic Management** 17(1): pp. 99-120.

Bayraktaroglu, G., & Atrek, B. (2010). Testing the superiority and dimensionality of SERVQUAL vs. SERVPERF in higher education. **The Quality Management Journal** 17(1): pp.47-59.

Becket, N. and Brookes, M. (2008) Quality Management Practice in Higher Education- What Quality Are We Actually Enhancing? **Journal of Hospitality, Leisure, Sports & Tourism Education** 7(1): pp. 40-54.

Bernheim, C. and Chau, M. (2003), **Challenges of the University in the Knowledge Society: Five Years After the World Conference on Higher Education**. UNESCO. Paris, France.

Berry, G. (2001) Telling Stories Making Sense of the Environmental Behaviour of Chemical Firms. **Journal of Management Inquiry** 19(1): pp. 58-73.

Berry, L., Zeithaml, V. and Parasuraman, A. (1985), Quality Counts in Services, Too. **Business Horizon** May-June 1985. pp.44-52.

Benlian, A., Koufaris, M., and Hess, T. (2011). Service Quality in Software-as-a-Service: Developing the SaaS-Qual Measure and Examining Its Role in Usage Continuance. **Journal Of Management Information Systems** 28(3): pp. 85-126.

Bers, T. (1980) Politics, Programs, and Local Governments: The Case of Community Colleges. **The Journal of Politics** 42(1): pp. 150-164.



- Black, T. (1999) **Doing Quantitative Research in the Social Sciences. An Integrated Approach to Research Design, Measurement and Statistics.** SAGE- Publisher. London, UK.
- Bowen, J., and Ford, R. (2002) Managing Service Organizations: Does Having a "Thing" Make a Difference? **Journal of Management** 28(3) pp. 447-469.
- Brint &, S., & Karabel, J. (1989) **The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900-1985.** New York Oxford. Oxford University Press.
- Brown, A. (2010) Qualitative method and compromise in applied social research. **Qualitative Research** 10 (2): pp. 229-248.
- Brown, L., Martinez, M., and Daniel, D. (2002) Community College Leadership Preparation: Needs, perceptions, and Recommendations. **Community College Review** 30(1): pp.45-73.
- Brown, R. (1967). Evaluation of total survey error. **Journal of Marketing Research** 4(2): pp.117-127.
- Brown, T., Churchill, JR. G. and Peter, J. (1993) Research Note: Improving the Measurements of Service Quality. **Journal of Retailing.** 69(1). pp.126-139
- Brutus, S., Aguinis, H., and Wassmer, U. (2013) Self-Reported Limitations and Future Directions in Scholarly Reports: Analysis and Recommendations. **Journal of Management** 39(1): pp.48-75.
- Bryman, A., and Cramer, D. (2009) **Quantitative Data Analysis with SPSS14, 15 & 16. A Guide for Social Scientists.** Routledge, New York, USA.
- Bryson, A., and Curry, A. (2001) Service improvements in public services using SERVQUAL. **Managing Service Quality** 11(6): pp.389-401.
- Bryson, J., Ackermann, F., and Eden, C. (2007) Putting the Resource-Based View of Strategy and Distinctive Competencies to Work in Public Organizations. **Public Administration Review** 67(4): pp.702-717.
- Buranajarukorn, P. (2006), **Human Aspects of Quality Management in Developing Countries: A Comparative analysis and Module Development for Thai Manufacturing SMEs.** PhD Thesis. University of Wollongong. Australia.
- Business Dictionary (2008) **Quality Improvement** [Online]. Available at: <http://www.businessdictionary.com/definition/quality-improvement.html> [Accessed 26 December 2010].
- Cass, A., and Voola, R.(2011) Explications of political market orientation and political brand orientation using the resource-based view of the political party. **Journal of Marketing Management** 27(5-6): pp. 627-645.
- Calvo-Porrá, C., Le´vy-Mangin, J., and Novo-Corti, I. (2013) Perceived quality in higher education: an empirical study. **Marketing Intelligence & Planning** 31(6): pp. 601-619.
- Campbell, D. (1955) The Informant in Quantitative Research. **American Journal of Sociology** 60(4): pp.339-342.



Carrillat, F., Jaramillo, F., Mulki, J. (2007) The validity of the SERVQUAL and SERVPERF scales A meta-analytic view of 17 years of research across five continents. **International Journal of Service Industry Management** 18(5): pp. 472-490.

Centre of Higher Education Statistics, Ministry of Higher Education, Kingdom of Saudi Arabia. (2012). **Students' Total Numbers in the Academic Year 2010-2011** (Excel File). Unpublished.

Chaudron, D. (2008) **Elements of Quality** [Online] Available @: <http://www.organizedchange.com/tqmelem.htm> [Accessed 26 December 2010].

Cloud, J., & Vaughan, G. (1970). Using balanced scales to control acquiescence. **Sociometry** 33(2): pp.193-202.

Cohen, A., & Brawer, F. (1987) **The Collegiate Function of Community Colleges**. San Francisco: Jossey-Boss Inc. USA.

Colbert, B. (2004) The Complex Resource-Based View: Implications for Theory and Practice in Strategic Human Resource Management. **Academy of Management Review** 29(3): pp.341-358.

Coskun, L. (2014) Investigating the Essential Factors on Student Satisfaction: A Case of Albanian Private University. **Journal of Educational and Social Research** MCSER Publishing, Rome-Italy 4(1): pp.489-503.

Crookston, A., and Hooks, G. (2012) Community Colleges, Budget Cuts, and Jobs: The Impact of Community Colleges on Employment Growth in Rural U.S. Counties, 1976-2004. **Sociology of Education** 85(4): pp.350-372.

Cronin & J., & Taylor (1992), Measuring Service Quality: A Reexamination and Extension. **The Journal of Marketing** 56(3): pp.55-68.

Cuthbert, P. (1996). Managing service quality in HE: Is SERVQUAL the answer? Part 1. **Managing Service Quality** 6(2): pp.11-16.

Czepiel, J. (1990) Service encounters and service relationships: Implications for research. **Journal of Business Research** 20(1): pp.13-21.

Das, T., and Teng, B. (2000) A Resource-Based Theory of Strategic Alliances. **Journal of Management** 26(1): pp.31-61.

Dean, J., and Bowen, D. (1994) Managing Theory and Total Quality: Improving Research and Practice Through Theory Development. **Academy of Management Review** 19(3): pp.392-418.

DeGenaro, W. (2001) Class Consciousness and the Junior College Movement: Creating a Docile Workforce. **A Journal of Composition Theory** 21(3): pp.499-520.

Doherty. G. (1993) Towards Total Quality Management in higher education: A comparative analysis of the University of Wolverhampton. **Higher Education** 25(3): pp.321-339.

Doktor, R., Tung, R., and Von Glinow, M. (1991) Future Directions for Management Theory Development. **Academy of Management Review** 16(2): pp.362-365.

Donnelly, M., Wisniewski, M., Dalrymple, J., & Curry, A. (1995). Measuring service quality in local government: The SERVQUAL approach. **International Journal of Public Sector Management** 8(7): pp.15-20.

Dotchin, J., & Oakland, J. (1993). Total Quality Management in services Part 1: Understanding and classifying services. **International Journal of Quality & Reliability Management** 11(3): pp.9-26.

Doyle, W. (2009) The effect of community college enrollment on bachelor's degree completion. **Economics of Education Review** 28(2): pp.199-206.

Dudwick, N., Kuehnast, K., Jones, V. and Woolcock, M. (2006) **ANALYZING SOCIAL CAPITAL IN CONTEXT. A Guide to Using Qualitative Methods and Data**. World Bank Institute Washington, D.C., USA.

Douglas, J., Douglas, A., and Barnes, B. (2006) Measuring student satisfaction at a UK university. **Quality Assurance in Education** 14(3): pp.251-267.

Espino-Rodríguez, T., and Padrón-Robaina, V. (2006) A review of outsourcing from the resource-based view of the firm. **International Journal of Management Reviews** 8(1): pp.49-70.

Emerson, L. (2005) **Writing Guidelines for Social Science Students**. 2nd ed. Cengage Learning Australia.

Feigenbaum, A. (1991) **Total Quality Control**. 40th ed. McGraw-Hill Inc.

Firdaus, A. (2006) Measuring Service Quality in Higher Education: HEDPERF versus SERVPERF. **Marketing Intelligence & Planning** 24(1): pp.31-47.

Fisher, R. (1993). Social desirability bias and the validity of indirect questioning. **Journal of Consumer Research** 20(2): pp.303-315.

Fukui, R., Honda, Y., Inoue, H., Kaneko, N., Miyauchi, I., Soriano, S., and Yagi, Y. (2003), **Handbook for TQM and QCC. Volume I. What are TQM and QCC? A Guide for Managers**. Inter-American Development Bank. Japan.

Galloway, L. (1998). Quality perceptions of internal and external customers: A comparative analysis in educational administration. **The TQM Magazine** 10(1): pp.20-26.

Gargiulo, T. (2005) **The strategic use of stories in organizational communication and learning**. USA: M. E. Sharpe.

Garvin, D. (1984) What does Product Quality Mean? **Sloan Management Review** 26(1): pp.25-43.

Gephart, R. (2004) Qualitative Research and the Academy of Management Journal. **Academy of Management Journal** 47(4): pp.454-462.

Gibson, A. (2010) Measuring business student satisfaction: a review and summary of the major predictors. **Journal of Higher Education Policy and Management** 32(3): pp.251-259.



Goldberg, J. and Cole, B. (2002) Quality management in education: Building excellence and equity in student performance. **The Quality Management Journal** 9(4): pp.8-22.

Grafström, A., and Schelin, L. (2014) How to Select Representative Samples. **Scandinavian Journal of Statistics**. 41(2): pp.277-290.

Grant, R., Shani, R., and Krishnan, R. (1994) TQM's Challenges to Management Theory and Practice. **Sloan Management Review** 35(2): pp.25-35.

Grant, D., Mergen, E. and Widrick, S. (2002) Quality management in US higher education. **Total Quality Management** 13(2): pp.207-215.

Grant, D., Mergen, E., and Widrick, S. (2004) A Comparative Analysis of Quality Management in US and International Universities. **Total Quality Management** 15(4): pp.423-438.

Greene, J. (2008) Is mixed methods social inquiry a distinctive methodology? **Journal of Mixed Methods Research** 2(1): pp.7-22.

Grönroos, C. (1990) **Service Management and Marketing: Managing the Moments of Truth in Service Competition**. USA: Lexington Books.

Gronroos, C. (2007) **Service Management and Marketing: Customer Management in Service Competition**, 3rd Edition. . London: Wiley.

Grubb, W. N. (2002) Learning and earning in the middle, Part I: National studies of pre-baccalaureate education. **Economics of Education Review** 21(4): pp.299-321.

Gurtoo, A. (2009) Adaptation of Indian public sector to market-based economic reforms: A resource-based perspective. **International Journal of Public Sector Management** 22(6): pp.516-531.

Halley, R. (2004). Measures of Central Tendency, Location, and Dispersion in salary survey research. *Compensation and Benefits Review*, 36 (5), 39- 53.

Harvey, L., and Green, D. (1993) Defining quality. **Assessment & Evaluation in Higher Education** 18(1): pp.9-26.

Hathaway, R. (1995) Assumptions Underlying Quantitative and Qualitative Research: Implications for Institutional Research. **Research in Higher Education** 36(5): pp.535-562.

Heine, K., and Rindfleisch, H.(2013). Organizational decline A synthesis of insights from organizational ecology, path dependence and the resource-based view. **Journal of Organizational Change Management** 26(1): pp.8-28.

Henard D., and. McFadyen M.(2012) Resource Dedication and New Product Performance: A Resource-Based View. **Journal of Product Innovation Management** 29(2): pp.193-204.

Hidalgo, E., Villoriaa, J., and Romero-Cerezo, C. (2011) The necessity and challenge of setting up a quality assurance system in the higher education system in Andalusia (Spain). **Procedia Social and Behavioral Sciences** 15(2011): pp.2972-2976.

Hilmer, M. (1997) Does Community College Attendance Provide a Strategic Path to a Higher Quality Education? **Economics of Education Review** 16(1): pp.59-68.

Hilmer, M. (1998) Post-secondary fees and the decision to attend a university or a community college. **Journal of Public Economics** 67(3): pp.329-348.

Homud, KH. (2000) **Total Quality Management**. Dar Almasirah. Amman, Jordan: (In Arabic).

Hoopes, D., Madsen, T., and Walker, J. (2003) Guest editors' introduction to the special issue: why is there a resource-based view? Toward a theory of competitive heterogeneity. **Strategic Management Journal** 24(10): pp.889-902.

Hoyle, D. (2001) **ISO 9000 Quality Systems Handbook**. Completely revised in response to ISO 9000:2000. Fourth Ed. Butterworth-Heinemann, Oxford, UK.

Hsieh, J., Raim A., Petter, S., and Ting, Z. (2012) Impact of User Satisfaction with Mandated CRM Use on Employee Service Quality. **MIS Quarterly** 36(4): pp.1065-1080.

Hunter, L. and Leahey, E. (2008), Collaborative Research in Sociology: Trends and Contributing Factors. **American Sociologist** 39(4): pp.290-306.

International Association for the Evaluation of Educational Achievement (2010) **Trends in mathematics and science study (TIMSS)**. Boston College. USA [Online]. Available at: <http://timssandpirls.bc.edu/TIMSS2007/about.html> [Accessed 17 May 2011].

Investor words (2008) **Quality Control** [Online]. Available at: http://www.investorwords.com/3996/quality_control.html [Accessed 26 December 2010].

ISO. **International Organization for Standardization** (2011). [Online]. Available at: <http://www.iso.org/iso/home/about.htm> [Accessed 13 July 2011].

ISO. **International Organization for Standardization** (2013). [Online]. Available at: <http://www.iso.org/iso/home/about.htm> [Accessed 3 May 2013].

Jashim Uddin Ahmed (2008) **Quality and TQM at Higher Education Institutions in the UK: Lessons from the University of East London and the Aston University**. AIUB Bus Econ Working Paper Series, No 2008-12. Available @: <http://orp.aiub.edu/WorkingPaper/WorkingPaper.aspx?year=2008>.

Jingjun (David), X., Benbasat, I., and Cenfetelli, R. (2013). Integrating Service Quality with System and Information Quality: An Empirical Test in the E-Service Context. **MIS Quarterly** 37(3): pp.777-794.

Johnson, F., Buehring, A., Cassell, C. and Symon, G. (2006) Evaluating qualitative management research: Towards a contingent criteriology. **International Journal of Management Reviews** 8(3): pp.131-156.

Juran, J.M. (1974). **Quality Control Handbook**. (3rd ed.). New York, NY: McGraw-Hill.

Juran, J. (1995) **A History of Managing for Quality: The Evolution, Trends, and Future Directions of Managing for Quality**. Wisconsin: ASQC Quality Press.



Juran, J. and Godfrey, A. (1998) **Juran's Quality Handbook**. Fifth Ed. McGraw-Hill, United States of America.

Kang, G. and James, J. (2004) Service quality dimensions: an examination of Grönroos's service quality model. **Managing Service Quality** 14(4): pp.266-277.

Kasper, H. (2002) The changing role of community college. **Occupational Outlook Quarterly** 46(4): pp.14-21

Kennie, T., and Woodfield, S. (2008) **The Composition, Challenges and Changes in the Top Team Structures of UK Higher Education Institutions**. Development Report. Leadership Foundation for Higher Education, London, UK.

Kimberlin, C., and Winterstein, A. (2008) Validity and reliability of measurement instruments used in research. **American Journal of Health-System Pharmacy** 65(23): pp.2276-2284.

Kleinschmidt, E., Brentani, U., Salomo, S. (2007) Performance of Global New Product Development Programs: A Resource-Based View. **Journal of Product Innovation Management** 24(5): pp.419-441.

Kraaijenbrink, J., Spender, J., and Groen, A. (2010) The Resource-Based View: A Review and Assessment of Its Critiques. **Journal of Management January** 36(1): pp.349-372.

Lämsisalmi, H., Peiro, J. and Kivimäki, M. (2004) Grounded theory in organizational research. In: Cassell, G. and Symon, G., (eds.) **Essential Guide to Qualitative Methods in Organizational Research**. Sage Publications Ltd: London, UK, pp.242-255.

Launer, J. (1999) Narrative based medicine: A Narrative Approach to Mental Health in General Practice. **British Medical Journal** 318(7176): pp.117-119.

Ledden, L., Kalafatis, S., and Mathioudakis, A. (2011) The idiosyncratic behaviour of service quality, value, satisfaction, and intention to recommend in higher education: An empirical examination. **Journal of Marketing Management** 27(11-12): pp.1232-1260.

Levin, J. (2001) Public policy, community colleges, and the path to globalization. **Higher Education** 42(2): pp.237-262.

Linderman, K., Schroeder, R., Zaheer, S., Liedtke, C., and Choo, A. (2004) Integrating quality management practices with knowledge creation processes. **Journal of Operations Management** 22(6): pp.589-607.

Lovelock, C., & Young, R. (1979). Look to customers to increase productivity. **Harvard Business Review** 50(3): pp.168-179.

Lupo, T. (2013) A fuzzy ServQual based method for reliable measurements of education quality in Italian higher education area. **Expert Systems with Applications** 40(17): pp.7096-7110.

Lynch, R., and Baines, P. (2004) Strategy Development in UK Higher Education: Towards resource-based competitive advantages. **Journal of Higher Education Policy and Management** 26(2): pp.171-187.



Mahoney, J., and Pandian, J. (1990) The Resource-Based View Within the Conversation of Strategic Management. **Strategic Management Journal** 13:(5): pp.363-380.

Mai, L. (2005) A Comparative Study Between UK and US: The Student Satisfaction in Higher Education and its Influential Factors. **Journal of Marketing Management** 21(7-8): pp.859-878.

Malik, A., Shinha, A., and Blumenfeld, S. (2012). Role of quality management capabilities in developing market-based organisational learning capabilities: Comparative analysis evidence from four Indian business process outsourcing firms. **Industrial Marketing Management** 41(4): pp.639-648.

Mamudo, F., (2007) **The Influence of Brand Awareness on the Relationship between Service Quality and Customer Satisfaction in Mobile Telecommunications**. Unpublished Thesis. Meiho Institute of Technology. Pingtung Taiwan, R.O.C.

Manly, B. (2004) *Multivariate Statistical Methods: A Primer*, Third Edition. Chapman and Hall/CRC. USA.

Marcotte D. (2010) The Earnings Effect Of Education At Community Colleges. **Contemporary Economic Policy** 28(1): pp.36-51.

Marinković, V., Senić, V., Kocić, M., and Šapić, S. (2013) Investigating the Impact of SERVQUAL Dimensions on Customer Satisfaction: The Lessons Learnt from Serbian Travel Agencies. **International Journal of Tourism Research** 15(2): pp.184–196.

Marshall, M. (1996) Sampling for qualitative research. **Family Practice** 13(6): pp.522-525.

Marshall, G. (1998) Qualitative versus quantitative debate. **A Dictionary of Sociology** [online]. Available at: <http://www.encyclopedia.com/doc/1088-qualitativeversssqntttvdbt.html> [Accessed 26 February 2011].

Marshall, B., Cardon, P., Poddar, A. Fontenot, R. (2013) Does Sample Size Matter in Qualitative Research?: A Review of Qualitative Interviews in Is Research **Journal Of Computer Information Systems** 54(1): pp.11-22.

Martínez-Costa, M., Choi, T., Martí'nez, J. and Martí'nez-Lorente, A. (2009), ISO 9000/1994, ISO 9001/2000 and TQM: The performance debate revisited. **Journal of Operations Management** 27(6): pp.495–511.

Martinez, J., and Martinez, L. (2010) Some insights on conceptualizing and measuring service quality. **Journal of Retailing and Consumer Services** 17(1): pp.29–42.

Mathews, J. (2002) Competitive Advantages of the Latecomer Firm: A Resource-Based Account of Industrial Catch-Up Strategies. **Asia Pacific Journal of Management** 19(4): pp.467–488.

Matthews, J., and Shulman, A. (2005) Competitive advantage in Public sector organizations: Explaining the public good/sustainable competitive advantage paradox, **Journal of Business Research** 58(2): pp.232-240.

Matveev, A. (2002), The advantages of employing quantitative and qualitative methods in intercultural research: practical implications from the study of the perceptions of intercultural

communication competence by American and Russian managers. in Collected research articles. **Bulletin of Russian Communication Association Theory of communication and applied communication** 1(168): pp. 59-67.

Meisenberg, G., & Williams, A. (2008). Are acquiescent and extreme response styles related to low intelligence and education? **Personality and Individual Differences** 44(7): pp.1539-1550.

Mergen, E., Grant, D., and Widrick S. (2000) Quality management applied to higher education. **Total Quality Management** 11(3): pp.345-352

Michael, R., Sower, V., and Motwani, J. (1997) A comprehensive model for implementing total quality management in higher education. **Benchmarking for Quality Management & Technology** 4(2): pp.104-120.

Miles, M. and Huberman, A. (1994) **An expanded sourcebook Analysis Qualitative Data**. 2nd ed. SAGE publications inc. USA.

Miles, R. (1964) Attitudes Toward Management Theory as a Factor in Managers' Relationships With Their Superiors. **Academy of Management** 7(4): pp.308-314.

Ministry of Economy and Planning (MEP), (2010) **Ninth Development Plan**. [online]. Available at: <http://www.mep.gov.sa/index.jsp;jsessionid=E72969A1EF694C071B480CC21CC36A2D.beta?event=ArticleView&Article.ObjectID=79> [Accessed 14 July 2011].

Ministry of Foreign Affairs, Kingdom of Saudi Arabia. **About Kingdom**.(2006). Administrative Divisions of the Kingdom of Saudi Arabia. [Online]. Available at: <http://www.mofa.gov.sa/sites/mofaen/aboutKingDom/SaudiGovernment/Pages/AdministrativeDivision46464.aspx> [Accessed on 7th Jan. 2012].

Ministry Of Foreign Affairs, Kingdom of Saudi Arabia. (2012). **The Kingdom: Site and Geographical Position**. [Online]. Available at: <http://www.mofa.gov.sa/sites/mofaen/aboutKingDom/Pages/KingdomGeography46466.aspx>. [Accessed on 11st Feb. 2012].

Ministry of Higher Education (MOEH), (2009a), **The National Report for Higher Education in Saudi Arabia**. MOEH, Saudi Arabia. (In Arabic).

Ministry of Higher Education (MOEH), (2009b), **Saudi Universities. Official Guide**. MOEH, Saudi Arabia. (In Arabic).

Ministry of Higher Education, MOHE, (2010) **Higher Education in the Kingdom of Saudi Arabia. Indicators and International Comparisons**. MOHE, Riyadh, Saudi Arabia. (In Arabic).

Ministry of Higher Education, MOHE, (2011) **Statement of Total Numbers of Students in Community Colleges in Governmental Higher Education Institutions in Saudi Arabia for the academic year 1431-1432h**. MOHE, Riyadh, Saudi Arabia. (In Arabic).

Ministry of Higher Education, MOHE, (2012) **Higher Education Institutions in the Kingdom of Saudi Arabia. Governmental and private universities and colleges**. MOHE, Riyadh, Saudi Arabia. (In Arabic).



Ministry of Higher Education, MOHE, (2013) **Saudi Women in Higher Education in Saudi Arabia**. MOHE, Riyadh, Saudi Arabia. (In Arabic).

Ministry of Higher Education, MOHE, (2014) **Governmental Universities**. Online available at: <http://www.mohe.gov.sa/ar/studyinside/Government-Universities/Pages/default.aspx> [Accessed 8 June 2014].

Modi, S. and Mishra, S. (2011) What drives financial performance–resource efficiency or resource slack? Evidence from U.S. Based Manufacturing Firms from 1991 to 2006. **Journal of Operations Management** 29(3): pp.254-273.

Ministry Of Foreign Affairs in Saudi Arabia (MOFA), (2011) **About Kingdom**. [online]. Available at: <http://www.mofa.gov.sa/sites/mofaen/aboutKingDom/Pages/KingdomGeography46466.aspx> [Accessed 14 July 2011].

Morgan, G. and Smircich, L. (1980) The case for qualitative research. *Academy of Management*. **The Academy of Management Review** 5(4): pp.491-500.

Mulkern-Kolosey, S. (2006) **A study for reinterpreting conditions for enhancing the quality of community college adult learner satisfaction**. Ed.D. dissertation, University of San Francisco, California, United States.

Munoz, M. (1999) **Total Quality Management in Higher Education: Lessons Learned From an Information Technology Office**. University of Louisville, Educational Foundations Department-USA.

Myers, M., (2000) Qualitative research and the generalizability question: Standing firm with Proteus. [30 paragraphs]. **The Qualitative Report**, 4(1/2): [Online]. Available at: <http://www.nova.edu/ssss/QR/QR4-1/myers.html>. [Accessed 25 February 2011].

Myers, M., (2009) **Qualitative Research in Business & Management** London: Sage Publications Ltd.

Mykerezi, E., Kostandini, G., and Mills, B. (2009) Do Rural Community Colleges Supply Unique Educational Benefits? **Journal of Agricultural and Applied Economics** 41(2): pp.411-417.

Nadler, B., and Johnstone, I. (2011) **On the Distribution of Roy's Largest Root Test in MANOVA and in Signal Detection in Noise**. Technical Report No. 2011-04 May 2011. Department of Statistics Stanford University, Stanford, California, USA.

Narang, R. (2012). How do management students perceive the quality of education in public institutions? **Quality Assurance in Education** 20(4): pp.357-371.

National Commission for Academic Accreditation & Assessment (NCAAA), (2009a) **Standards for Quality Assurance and Accreditation of Higher Education Institutions**. Saudi Arabia: MOEH. (In Arabic).



National Commission for Academic Accreditation & Assessment (NCAAA), (2009b) **Standards for Quality Assurance and Accreditation of Higher Education Programs**. Saudi Arabia: MOEH. (In Arabic).

National Commission for Academic Accreditation and Assurance (NCAAA). (2011). **Standards for accreditation and quality assurance**. Available @: <http://www.ncaaa.org.sa/english/astandardfront.aspx>. [Accessed 10 February 2011].

Neill, J. (2007) **Qualitative versus Quantitative Research: Key Points in a Classic Debate** [Online]. Available at: <http://www.wilderdom.com/research/QualitativeVersusQuantitativeResearch.html>. [Accessed 10 February 2011].

NCAAA. **The National Organization for Assessment and Accreditation** (2010). [Online]. Available at: <http://ncaaa.org.sa/english/acmspage.aspx?id=4> [Accessed 3 May 2013].

Norris, M., and Lecavalier, L. (2009). Evaluating the Use of Exploratory Factor Analysis in Developmental Disability Psychological Research". **Journal of Autism and Developmental Disorders** 40(1): pp. 8-20.

Novak, T. (1995) MANOVAMAP: Graphical Representation of MANOVA in Marketing Research. **Journal of Marketing Research** 32(3): p357-374.

Odiorne, G. (1966) The Management Theory Jungle and the Existential Manager. **Academy of Management Journal** 9(2): pp.109-116.

OFSTED. **About us** (2014) [Online]. Available at: <http://www.ofsted.gov.uk/about-us/who-we-are-and-what-we-do/services-we-inspect-or-regulate> [Accessed 3 June 2014].

Oliveira, O. (2009) **Adaptation and application of the SERVQUAL scale in higher education**. São Paulo State University. U.S.A.

Owlia, M., & Aspinwall, E. (1996) Quality in higher education—a survey. **Total Quality Management** 7(2): pp.161-171.

Pantouvakis, A. (2010) The relative importance of service features in explaining customer satisfaction. A comparison of measurement models. **Managing Service Quality** 20(4): pp. 366-387.

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A conceptual model of service quality and its implications for future research. **Journal of Marketing** 49(4): pp.41-50.

Parasuraman, A., Zeithaml, V. and Berry, L. (1988) SERVQUAL: A Multiple-Item Scale For Measuring Consumer Perceptions Of Service Quality, **Journal Of Retailing** 64(1): pp.12-40.

Payne A., and Holt, S. (2001) Diagnosing Customer Value: Integrating the Value Process and Relationship Marketing. **British Journal of Management** 12(2): pp.159–182.

Peak, M. (1993) MAQUILADORAS: Where Quality Is a Way of Life, **Management Review** 82(3): pp.19-23.

Perrigot, R., and Pénard, T. (2013) Determinants of E-Commerce Strategy in Franchising: A Resource-Based View. **International Journal of Electronic Commerce** 17(3): pp.109–130.

Petruzzellis, L., D’Uggento A., and Romanazzi, S. (2006) Student satisfaction and quality of service in Italian universities. **Managing Service Quality** 16(4): pp.349-364.

Podsakoff, P., Mackenzie, S., Lee, J., & Podsakoff, N. (2003) Common method biases in behavioural research: A critical review of the literature and recommended remedies. **Journal of Applied Psychology** 88(5): pp.879–903.

Powers, J., and McDougall, P. (2005) University start-up formation and technology licensing with firms that go public: a resource-based view of academic entrepreneurship. **Journal of Business Venturing** 20 (3): pp.291–311.

Praxiom Research Group Limited (2008) **ISO 9000 2005 Plain English Dictionary** [Online]. Available at: <http://www.praxiom.com/iso-definition.htm#Quality%20improvement> [Accessed 26 December 2010].

Priem, R., and Butler, J. (2001) Is the Resource-Based View a Useful Perspective for Strategic Management Research. **Academy of Management Review** 26(1): pp.22-40.

Psychogios, M. (2007) Understanding total quality management in context: Qualitative research on managers' awareness of TQM aspects in the Greek service industry. **The Qualitative Report** 12(1): pp.40-66.

Quinn, A., Lemay, G., Larsen, P. and Johnson, D. (2009) Service quality in higher education. **Total Quality Management** 20(2): pp.139–152.

The Quality Assurance Agency for Higher Education (QAA). (2012). **About QAA**. [Online]. Available at: <http://www.qaa.ac.uk/Pages/default.aspx> [Accessed 3 May 2013].

Rajasekar, S., Philominathan, P. and Chinnathambi, V. (2008) **Research Methodology** [Online]. Available at: <http://www.scribd.com/doc/6949151/Research-Methodology>. [Accessed 19 February 2011].

Ramseook-Munhurrun, P., Lukea-Bhiwajee, S., & Naidoo, P. (2010). Service quality in the public service. **International Journal of Management and Marketing Research** 3(1): pp.37-50.

Research Assessment Exercise (RAE) (2011) **Background to the RAE 2008**. [Online]. Available at: <http://www.rae.ac.uk/aboutus/background.asp> [Accessed 15 May 2011].

Roca-Puig, V., Escrig-Tena, A., Bou-Llugar, J., and Belrtan-Martin, I. (2006) A Systemic and Contingent View of the Basic Elements of Quality Management. **Total Quality Management** 17(9): pp.1111–1127.

Rumelt, R. (2003). Towards a strategic theory of the firm. In N. Foss, (ed.), **Resources, Firms, and Strategies: A Reader in the Resource-based Perspective**. Oxford University Press: UK, pp. 131–145.

Sachdev, S. and Verma, H. (2004) Relative importance of service quality dimensions: A multisectoral study. **Journal of Services Research** 4(1): pp.93-116.

Sahney, S., Banwet, d. and Karunes, S. (2008) An integrated framework of indices for quality management in education: a faculty perspective. **The TQM Journal** 20(5): pp. 502-519.

Santibáñez, L., Gonzalez. G., Morrison, P, and Carroll, S. (2007) Methods for gauging the target populations that community colleges serve. **Population Research and Policy Review** 26 (1), pp.51-67.

Saudi Online (2001) **Saudi Arabia's progress in higher education** [Online]. Available at: <http://www.saudia-online.com/business146.htm> [Accessed 26 December 2010].

Saville, P., & Willson, E. (1991). The reliability and validity of normative and ipsative approaches in the measurement of personality. **Journal of Occupational Psychology** 64(3): pp.219-238.

Schneider. B. and White, S. (2004) **Service Quality. Research Perspectives. Series: Foundations for Organizational Science.** SAGE Publications, Inc. USA

Sichtmann C, Selasinsky M, and Diamantopoulos A. (2011) Service Quality and Export Performance of Business-to-Business Service Providers: The Role of Service Employee- and Customer-Oriented Quality Control Initiatives. **Journal of International Marketing** 19(1): pp.1-22.

Shahin, A. (2006) **SERVQUAL and Model of Service Quality Gaps: A Framework for Determining and Prioritizing Critical Factors in Delivering Quality Services.** Department of Management, University of Isfahan, Iran.

Shekarchizadeh, A., Rasli, A., and Hon-Tat, H. (2011)SERVQUAL in Malaysian universities: perspectives of international students. **Business Process Management Journal** 17(1): pp.67-81.

Sirmon, D., Hitt, M., & Ireland R. (2007) Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. **Academy of Management Review** 32(1): pp.273–292.

Sousa, R. and Voss, C. (2002) Quality management re-visited: a reflective review and agenda for future research. **Journal of Operations Management** 20(1): pp.91-109.

Stella, A. and Woodhouse, D. (2006) **Ranking of Higher Education Institutions.** Australian Universities Quality Agency (AUQA). Occasional Publications Number 6.

Strauss, A. and Corbin, J. (1998) **Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory.** London: SAGE Publications.

Stutts, N. and R. Barker (1999) The Use of Narrative Paradigm Theory in Assessing Audience Value Conflict in Image Advertising. **Management Communication Quarterly** 13(2): pp.209-244.

Sulek, J. and Hensley, R. (2010) Updating service operations. **Managing Service Quality** 20(5): pp.475-489.



Surprenant, C., & Solomon M. (1987). Predictability and personalization in the service encounter. **The Journal of Marketing** 51(2): pp.86-96.

Tambi, A., Ghazali, M. And Yahya, N. (2008) The ranking of higher education institutions: A deduction or delusion? **Total Quality Management** 19(10): pp.997-1011.

Tan C., Benbasat, I., and Cenfetelli, R. (2013) IT-Mediated Customer Service Content and Delivery in Electronic Governments: An Empirical Investigation of the Antecedents of Service Quality. **MIS Quarterly** 37(1): pp.77-109.

Telford, R., and Masson, R. (2005) The congruence of quality values in higher education. **Quality Assurance in Education** 13(2): pp.107-119.

Teranishi, R., Suárez-Orozco, C., Suárez-Orozco, M. (2011) Immigrants in Community Colleges. **The Future of Children** 21(1): pp.153-169.

Thawesaengskulthai, N. (2007) **Selecting quality management and improvement initiatives: Case studies of industries in Thailand.** PhD Thesis, University of Nottingham.

Thawesaengskulthai, N. and Tannock, J. (2008) Fashion Setting in Quality Management and Continuous Improvement, **International Studies of Management and Organization** 38(2): pp.5-24.

Tribus, M. (1993) Quality management in education. **The Journal for Quality and Participation** 16(1): pp.12-21.

Van Maanen, J. (1998) Different strokes: Qualitative research in the Administrative Science Quarterly from 1956-1996. In John Van Maanen (Ed.) **Qualitative Studies of Organizations.** Newbury Park, CA: Sage Publications, pp.8-33.

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: guidelines for conducting mixed methods research in information systems **MIS Quarterly** 37(1): pp.21-54.

Wang, C., Jiang, B., Chou, Y., and Chu, C. (2011) Multivariate analysis-based image enhancement model for machine vision inspection. **International Journal of Production Research** 49(10): pp.2999-3021.

Webometrics Ranking of World Universities (2011) **About us.** [Online]. Available at: http://www.webometrics.info/en/About_Us [Accessed 28 May 2014].

Weihrich, H., and Koontz, H. (1993) **Management: A Global Perspective.** New York : McGraw-Hill, Inc.

Weinreich, N. (1996) A More Perfect Union: Integrating Quantitative and Qualitative Methods in Social Marketing Research. **Social Marketing Quarterly** 3(1): pp.53-58.

Wernerfelt, B.(1984) Strategic . A Resource-based View of the Firm. **Management Journal** 5(2): pp.171-180.



- Westfall, R., Harper, W., & Campbell, D. (1957). The use of structured techniques in motivation research. **Journal of Marketing** 22(2): pp.134-139.
- Wiengarten, F., and Pagell, M. (2012). The importance of quality management for the success of environmental management initiatives. **International Journal of Production Economics** 140(1): pp.40-415.
- Williams, G. (1993) Total quality management in higher education: Panacea or placebo? **Higher Education** 25(3): pp.229-237.
- Windham, P. (2001) Changes needed in community colleges to improve teaching and learning. **Annual Quality Congress Proceedings** 55(0): pp.756-769.
- Wisniewski, M. (2001) Using SERVQUAL to assess customer satisfaction with public sector services. **Managing Service Quality** 11(6): pp.380-388.
- Woolf, D. (1965) The Management Theory Jungle Revisited. **Advanced Management journal** 30(4): pp.6-15.
- Wolf, F. (2010) Enlightened Eclecticism or Hazardous Hotchpotch? Mixed Methods and Triangulation Strategies in Comparative Public Policy Research. **Journal of Mixed Methods Research** 4(2): pp.104-144.
- Yeo, R. (2008) Brewing service quality in higher education Characteristics of ingredients that make up the recipe. **Quality Assurance in Education** 16(3): pp.266-286.
- Zafiroopoulos, C. And Vrana, V. (2008) Service Quality Assessment in a Greek Higher Education Institute. **Journal of Business Economics and Management** 9(1): pp.33-45.
- Zachariadis, M., Scott, S. and Barrett, M. (2013) Methodological Implications of Critical Realism for Mixed-Methods Research. **MIS Quarterly** 37(3): pp.855-879.
- Zeithaml, V., Berry, L., and Parasuraman, A. (1988) Communication and Control Processes in the Delivery of Service Quality. **Journal of Marketing** 52(2): pp.35-48
- Zerbe, W., & Paulhus, D. (1987). Socially desirable responding in organizational behaviour: A Reconception. **Academy of Management Review** 12(2): pp.250-264.

Appendices:

Appendix 1: CCs scores on QAS

QAS		(1) Mission, Goals and Objectives				(2) College Administration				(3) Management of Quality Assurance				(4) Learning and Teaching			(5) Student Administration and Support Services		(6) Learning Resources		(7) Facilities and Equipment (Housing)	(8) Financial Planning and Management	(9) Employment Processes				(10) Research			(11) Relationships with the Community	
Cc		q23	q24	q25	q26	q27	q28	q29	q30	q31	q32	q33	q34	q35	q36	q37	q38	q39	q40	q41	q42	q43	q44	q45	q46	q47	q48	q49	q50	q51	q52
Onaiza CC	N	16	16	16	16	16	16	16	16	16	15	15	16	16	16	16	16	16	16	16	16	16	16	16	15	16	16	16	15	16	16
	Mean	6.00	6.31	5.31	5.56	4.94	5.19	5.13	5.69	5.06	5.00	5.00	5.07	5.25	4.88	4.69	3.81	4.69	4.63	5.19	4.25	4.50	5.69	3.81	4.93	4.87	3.88	5.13	3.73	4.06	5.19
	Std.Dev.	1.033	.793	1.493	1.788	1.289	1.642	1.204	1.352	1.389	1.095	2.035	.884	1.291	1.408	1.401	1.601	1.887	1.204	1.328	2.769	1.592	1.138	1.601	1.792	1.544	2.419	1.628	2.344	1.769	1.377
Abha Female CC	N	29	28	28	28	28	27	27	28	26	28	26	26	28	28	28	28	27	28	28	28	28	28	28	28	28	27	28	27	28	28
	Mean	6.48	5.36	6.04	5.14	6.11	5.04	5.44	5.79	6.12	5.93	3.38	5.58	5.86	5.61	5.64	4.11	4.04	5.14	5.61	5.21	4.11	6.07	5.79	4.96	5.43	5.33	4.64	5.04	3.50	4.36
	Std.Dev.	1.153	2.077	1.347	2.399	1.423	1.990	1.553	1.893	1.033	1.386	2.090	1.677	1.484	1.685	1.615	1.931	2.192	1.900	1.892	2.658	2.529	1.884	1.833	2.099	2.063	2.094	1.768	1.951	2.046	2.215
Skaka CC	N	8	8	8	8	7	6	7	7	7	6	7	7	7	7	6	7	7	6	8	7	8	6	5	8	7	7	6	7	7	
	Mean	5.63	3.50	5.75	3.88	5.57	4.67	5.14	5.43	6.00	5.57	4.17	5.29	5.57	5.43	5.14	4.67	3.86	5.43	3.33	4.38	3.86	6.00	5.67	4.40	4.25	5.00	6.29	5.67	5.14	5.00
	Std.Dev.	2.326	2.726	1.581	2.642	2.149	2.875	2.116	1.512	1.826	1.902	2.563	1.604	1.813	1.902	2.116	2.422	2.340	2.440	2.338	2.973	2.734	2.138	1.966	2.793	2.765	2.380	.951	1.966	2.193	2.380
Turaif CC	N	17	17	17	16	17	16	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
	Mean	6.41	3.18	6.12	5.50	5.71	4.75	6.12	5.76	6.00	6.06	5.18	5.65	6.35	6.41	6.24	4.35	4.82	5.82	4.71	4.94	5.59	6.59	5.24	5.76	5.88	3.47	4.35	5.65	6.24	5.00
	Std.Dev.	.870	2.378	1.536	1.713	1.312	2.295	1.166	1.786	1.061	1.345	2.069	1.730	.702	.712	.970	2.090	2.270	1.776	2.392	2.436	1.326	.795	2.195	2.107	1.654	2.125	1.935	1.115	1.091	1.500
Huraimila CC	N	8	8	7	8	8	8	8	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	Mean	5.63	4.50	5.00	5.25	4.62	4.00	4.50	5.25	5.13	4.43	4.25	5.00	4.75	5.00	4.75	4.50	4.13	4.38	3.13	5.88	4.13	3.88	5.00	5.00	4.38	4.75	4.25	5.38	4.38	4.75
	Std.Dev.	1.685	2.449	1.826	1.581	1.685	1.690	1.309	1.488	1.246	1.902	2.121	1.069	1.389	.926	1.389	1.773	2.100	1.768	2.167	1.727	1.458	1.959	1.069	1.604	1.768	1.909	1.581	1.506	1.847	1.581
Tabouk CC	N	18	18	18	18	18	18	17	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
	Mean	6.56	6.11	5.89	5.50	5.00	4.78	4.82	5.11	5.44	5.78	5.94	5.17	5.50	5.33	5.83	4.72	5.06	5.33	5.22	6.00	4.89	6.50	5.56	5.72	5.67	3.83	4.72	3.89	5.56	6.00
	Std.Dev.	.616	1.410	1.451	2.007	2.096	2.184	1.976	2.324	1.790	1.801	1.349	1.917	1.689	1.495	1.581	2.218	1.955	1.645	1.927	1.910	1.875	.985	1.977	1.809	1.414	1.917	1.364	2.166	1.199	1.237
Riyadh CC	N	16	16	15	16	16	15	16	16	16	16	16	16	16	15	15	16	16	16	16	16	15	16	16	16	16	16	16	16	16	
	Mean	6.69	6.56	6.13	5.38	6.00	5.60	5.50	5.81	6.19	6.19	6.31	6.19	5.87	5.87	6.40	4.69	5.81	5.13	5.94	4.00	4.53	5.63	6.38	5.81	4.56	5.06	4.31	5.50	5.37	5.81
	Std.Dev.	.793	1.504	1.642	2.446	1.506	1.502	1.549	2.401	1.721	1.223	1.621	1.377	1.455	1.885	.828	1.815	1.471	1.821	.854	2.852	2.167	2.500	1.544	1.870	2.607	2.489	1.957	1.862	2.217	1.870
Makkah CC	N	14	14	14	14	14	14	14	14	13	14	14	14	14	14	14	14	14	14	14	14	13	14	13	14	14	14	14	14	14	
	Mean	5.43	2.57	1.50	2.07	1.50	3.07	1.43	4.86	1.79	2.54	6.43	1.29	1.71	1.71	1.86	2.21	5.71	1.71	3.36	6.79	3.00	2.21	3.54	1.36	4.57	5.36	4.00	6.64	2.71	2.29
	Std.Dev.	2.027	2.027	.855	.475	.855	2.336	.852	1.748	1.311	.877	1.016	.611	1.204	1.204	1.167	.579	.726	.469	2.706	4.26	1.633	1.626	2.259	.633	1.785	.929	1.961	.633	1.978	1.899
Madinah CC	N	28	28	28	28	28	28	28	27	27	27	27	27	27	27	27	28	28	28	28	29	29	29	29	29	29	29	29	29	29	
	Mean	6.96	5.43	6.61	6.11	6.75	6.11	6.14	5.04	6.37	6.37	4.70	5.59	6.48	6.41	6.33	6.54	5.79	6.50	6.18	6.31	5.38	6.14	6.38	6.31	6.38	4.24	2.90	4.79	5.93	6.14
	Std.Dev.	.189	2.456	.685	1.729	.645	1.873	1.627	1.972	.967	.884	2.035	1.845	.753	1.047	1.074	.838	1.729	.745	1.588	1.391	2.194	1.726	1.545	1.442	1.568	2.516	1.896	2.111	1.731	1.767
Jazan CC	N	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	
	Mean	5.25	2.80	5.00	2.80	6.20	3.00	5.00	5.00	4.80	5.00	3.20	4.40	4.80	6.40	6.00	4.60	3.20	4.80	4.40	6.60	3.60	4.25	5.40	3.40	3.40	6.80	6.00	6.20	5.20	3.60
	Std.Dev.	1.258	1.095	.707	1.095	1.095	1.225	1.225	2.828	.837	1.225	.837	1.817	.837	.894	1.000	.548	.837	.837	2.408	.894	1.517	1.893	1.140	2.302	2.302	.447	2.236	1.304	1.304	1.140
Total	N	158	158	156	157	157	153	155	157	154	154	152	153	156	155	155	156	156	157	156	159	156	158	156	155	159	157	158	155	158	158
	Mean	6.33	4.97	5.56	5.05	5.41	4.93	5.11	5.41	5.47	5.53	4.94	5.08	5.44	5.39	5.43	4.56	4.92	5.08	5.10	5.43	4.56	5.60	5.42	5.08	5.28	4.59	4.35	5.07	4.82	5.01
	Std.Dev.	1.234	2.367	1.867	2.215	1.942	2.131	1.936	1.928	1.801	1.661	2.091	1.975	1.786	1.856	1.809	2.001	1.976	1.925	2.101	2.332	2.104	2.053	1.974	2.216	2.000	2.228	1.929	1.984	2.080	2.047

Table 29: CCs scores on QAS

As the scale used in the questionnaires is a seven points scale the highest point is 7 and the lowest is 1. If the standard –in any CC- scored between 3.5 and 7, then it has been applied to some extent successfully, if it was below 3.5, it has not been applied successfully.

Appendix 2: A comparison between the ten CCs on the five dimensions of service quality from the Faculty members point of view

The (#) symbol means a gap, the (##) means large gap, the (*) means no gap and the (**) means experiences better than expectations.

Faculty Members		expectations					experiences				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
Onaiza CC	N	15	16	14	15	15	14	14	15	14	15
	Means	22.5333	27.1250	21.2857	24.4667	25.6667	#21.0000	#24.9286	#19.7333	#19.0714	*25.4667
	Median	25.0000	28.0000	21.0000	27.0000	25.0000	21.5000	25.0000	19.0000	18.0000	25.0000
	Std. Dev.	5.09715	5.57225	3.75046	5.30319	4.46681	4.11377	4.74689	4.78788	3.81221	4.27395
Abha Female CC	N	29	26	26	28	27	28	26	25	25	25
	Means	26.0345	29.3077	20.7308	26.4643	28.5926	#17.7857	#24.7308	**21.2400	#21.1600	*27.8800
	Median	27.0000	30.5000	21.5000	28.0000	29.0000	18.0000	25.0000	22.0000	22.0000	28.0000
	Std. Dev.	2.90913	5.02609	4.91982	2.79526	5.59023	5.45254	4.77960	5.22239	4.67868	5.57763
Skaka CC	N	8	5	6	8	6	8	8	7	8	8
	Means	24.8750	32.8000	19.0000	24.6250	25.5000	#19.2500	#26.2500	**20.7143	#21.7500	**30.2500
	Median	26.0000	35.0000	20.5000	27.5000	25.0000	20.0000	25.5000	22.0000	22.0000	30.0000
	Std. Dev.	3.31393	4.91935	4.81664	4.40576	9.33274	7.68579	4.80327	7.80415	3.32738	4.65219
Turaif CC	N	15	16	15	13	14	17	17	15	16	15
	Mean	26.0667	29.1875	19.4667	26.8462	33.5714	#21.7059	#27.4118	*22.9333	#21.3125	#27.6667
	Median	27.0000	31.0000	19.0000	28.0000	31.5000	22.0000	29.0000	24.0000	22.0000	28.0000
	Std. Dev.	2.12020	5.64764	4.95504	1.77229	17.30591	4.68728	5.16065	4.06143	4.26956	5.40723
Huraimila CC	N	8	5	7	7	6	8	6	6	4	6
	Mean	23.7500	30.0000	21.4286	24.8571	27.6667	#16.7500	##21.5000	#18.5000	#18.2500	#25.0000
	Median	25.0000	32.0000	22.0000	26.0000	28.0000	15.5000	20.0000	18.5000	18.0000	25.5000
	Std. Dev.	3.32738	6.32456	5.12696	2.85357	3.26599	5.41822	3.56371	3.27109	3.68556	4.81664
Tabouk CC	N	17	15	16	17	17	18	15	15	17	18
	Mean	23.5882	30.1333	21.0625	24.3529	25.1765	#22.0000	#24.9333	**21.3333	#21.4118	**26.7222
	Median	26.0000	31.0000	22.0000	26.0000	24.0000	22.0000	26.0000	22.0000	20.0000	26.0000
	Std. Dev.	5.51202	4.08598	5.27218	4.64948	5.39948	4.14445	4.14844	5.20531	4.40254	4.86047

Faculty Members		expectations					experiences				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
Riyadh	N	16	14	16	16	16	15	14	14	13	15
CC	Mean	26.4375	30.5714	21.1250	26.6250	29.0625	#23.0667	#27.1429	**22.4286	#23.6154	#26.8667
	Median	27.5000	30.5000	21.5000	28.0000	29.0000	24.0000	29.0000	21.5000	25.0000	26.0000
	Std. Dev.	1.82460	2.73761	6.05392	2.57876	4.97284	4.84719	5.50325	4.10842	3.73136	5.78010
Makkah	N	13	13	13	13	12	14	10	14	13	13
CC	Mean	25.5385	28.8462	15.2308	16.3077	23.4167	##13.3571	##18.7000	**16.6429	#14.5385	#17.5385
	Median	27.0000	28.0000	16.0000	18.0000	23.0000	11.0000	16.0000	17.0000	15.0000	19.0000
	Std. Dev.	2.25889	2.76424	2.04751	7.92028	4.07784	7.56111	5.33437	3.52152	1.19829	3.30695
Madina	N	29	26	25	28	28	27	27	26	29	28
h CC	Mean	26.1724	30.4231	22.4800	26.6429	27.4286	#21.7407	#27.6296	**23.6154	#24.6552	**30.4643
	Median	27.0000	30.0000	22.0000	28.0000	28.0000	22.0000	29.0000	28.0000	26.0000	31.0000
	Std. Dev.	2.77835	4.63183	4.84871	4.00198	5.09487	4.43407	4.56701	7.46767	3.60828	4.70210
Jazan	N	5	4	5	4	5	5	4	5	5	5
CC	Mean	25.4000	25.2500	17.0000	24.0000	20.2000	##16.2000	#22.5000	#12.2000	#18.6000	#18.4000
	Median	25.0000	26.0000	16.0000	26.0000	20.0000	16.0000	21.5000	13.0000	18.0000	21.0000
	Std. Dev.	2.88097	1.50000	4.79583	5.65685	3.27109	.44721	3.31662	2.04939	2.19089	6.30872

Table 30: A comparison between the ten CCs on the five dimensions of service quality from the Faculty members perception

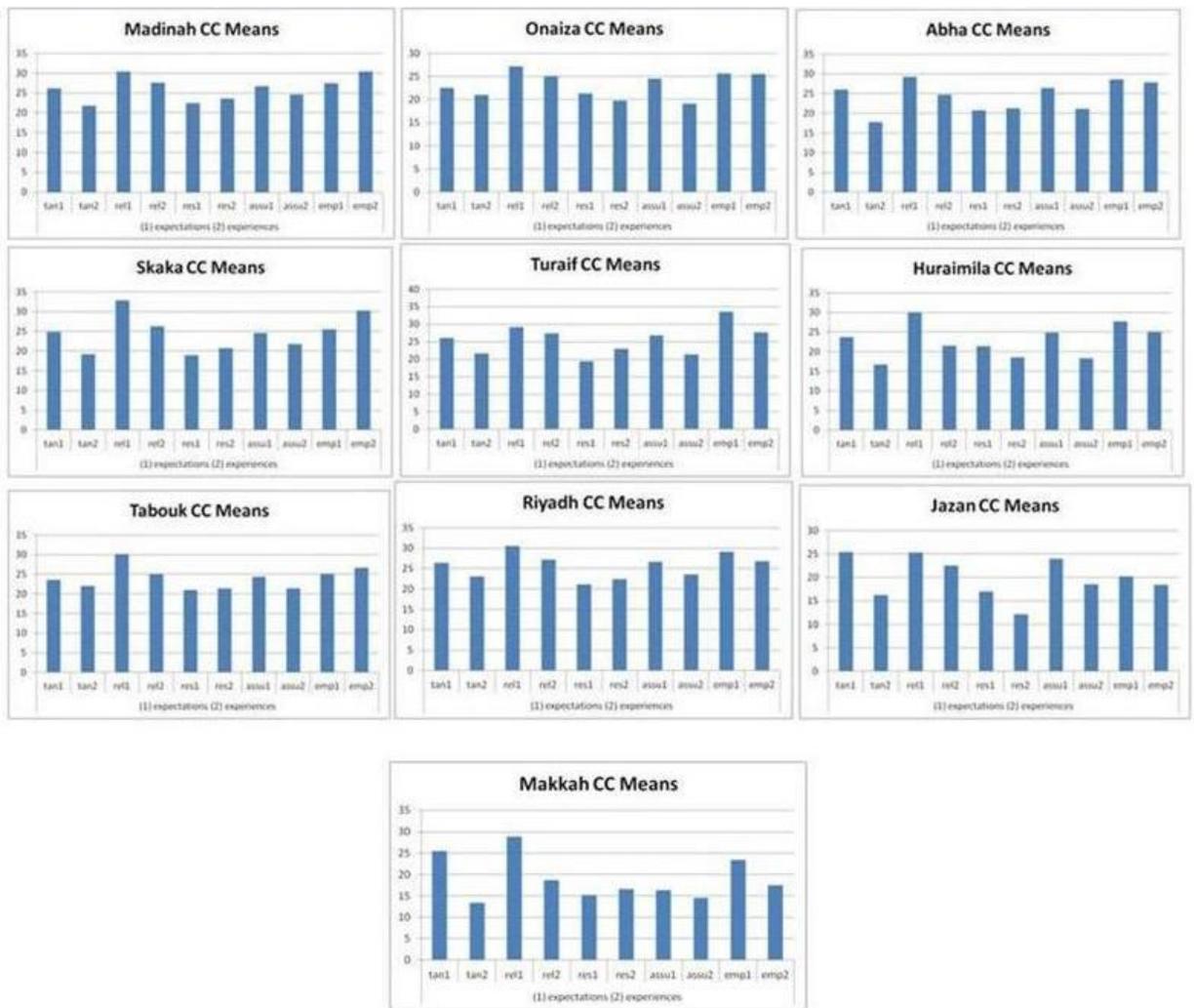


Figure 46: The Ten CCs Means on Service Quality Dimensions from Faculty Perception

The difference between dimension1 (expectations and dimension 2 (experiences) points to the size of the gap or the achievement between expectations and experiences.

Appendix 3: A comparison between the ten CCs on the five dimensions of service quality from the Students point of view

The (#) symbol means a gap, the (##) means large gap, the (*) means no gap and the (**) means experiences better than expectations.

Student		expectations					experiences				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
Onaiza CC	N	18	19	17	18	16	17	16	14	15	14
	Mean	21.2778	26.2632	18.2353	20.2778	21.8125	#18.1765	#21.5625	#15.8571	#16.3333	#19.4286
	Median	23.0000	26.0000	18.0000	22.0000	19.0000	19.0000	21.5000	16.0000	17.0000	21.0000
	Std. Dev.	6.35060	6.09956	5.99510	6.92655	6.35839	4.33352	3.81171	4.95917	7.55614	3.87724
Abha Female CC	N	30	24	25	28	24	28	26	25	26	26
	Mean	24.6333	29.7917	20.6800	25.3571	21.1250	#20.2857	##22.4615	#17.4000	#19.8462	#20.2692
	Median	24.0000	29.0000	21.0000	28.0000	21.0000	22.0000	23.5000	16.0000	21.5000	21.0000
	Std. Dev.	2.59287	3.78761	6.79902	3.69398	4.01424	4.31069	5.12430	3.76386	5.99128	3.69386
Skaka CC	N	14	11	12	13	11	13	13	13	11	11
	Mean	23.0714	29.5455	17.6667	21.3846	22.3636	#19.6154	##20.6923	*17.5385	#19.2727	*22.0909
	Median	25.0000	30.0000	18.5000	22.0000	22.0000	20.0000	21.0000	18.0000	20.0000	22.0000
	Std. Dev.	3.79198	3.95888	5.33144	4.46353	4.67488	5.29998	3.79440	4.75422	4.64954	4.13412
Turaif CC	N	10	8	9	10	10	8	7	9	10	10
	Mean	24.6000	30.2500	20.3333	26.1000	24.4000	##17.1250	##24.5714	#16.5556	#21.9000	#21.7000
	Median	24.0000	30.0000	22.0000	27.0000	24.0000	16.5000	23.0000	15.0000	22.0000	20.5000
	Std. Dev.	2.71621	3.61544	3.93700	2.23358	7.80598	5.51459	6.13344	5.00278	4.35762	4.78539
Huraimila CC	N	13	12	12	10	10	11	10	11	9	11
	Mean	24.0769	27.5833	18.5000	21.4000	21.7000	#17.3636	#21.9000	#16.4545	*21.1111	**21.8182
	Median	25.0000	29.0000	18.5000	24.0000	20.0000	17.0000	21.0000	16.0000	23.0000	20.0000
	Std. Dev.	3.94676	5.88462	5.23103	7.53068	6.05622	5.40875	4.58136	2.80584	5.34894	4.28528
Tabouk CC	N	13	13	12	12	12	11	11	9	10	10
	Mean	23.0769	26.9231	16.6667	22.8333	20.0000	#17.8182	#21.1818	**16.7778	#18.6000	#18.4000
	Median	24.0000	28.0000	16.0000	24.0000	20.0000	18.0000	21.0000	16.0000	20.0000	18.5000
	Std. Dev.	3.98877	4.88981	5.54868	4.64823	5.62462	4.85424	4.46807	3.70060	7.72010	2.06559
Riyadh CC	N	13	12	13	15	14	15	12	15	14	15
	Mean	23.6154	29.2500	16.4615	24.8667	17.2857	#17.6000	##20.0000	**16.6667	#16.8571	**20.8667
	Median	24.0000	29.5000	17.0000	27.0000	16.5000	18.0000	20.0000	16.0000	17.0000	20.0000
	Std. Dev.	3.66375	4.49495	4.33235	4.15532	4.10307	3.68006	3.97721	2.87021	3.41619	3.60291
Makkah CC	N	7	6	7	7	6	7	7	7	7	7
	Mean	25.7143	32.5000	21.0000	26.5714	25.8333	##19.0000	##19.7143	##14.7143	##18.5714	#20.7143
	Median	28.0000	33.5000	22.0000	28.0000	29.0000	19.0000	22.0000	16.0000	20.0000	20.0000
	Std. Dev.	2.92770	2.94958	7.93725	2.50713	9.68332	5.80230	4.46148	2.56348	4.85994	3.09377

Student		expectations					experiences				
		tan1	rel1	res1	assu1	emp1	tan2	rel2	res2	assu2	emp2
Madinah CC	N	28	29	27	28	29	29	28	26	27	27
	Mean	20.6429	27.4828	17.4074	21.3571	20.6207	##16.5862	##19.8214	*16.6154	#18.8148	**21.0741
	Median	22.0000	29.0000	17.0000	24.5000	20.0000	16.0000	19.0000	16.5000	19.0000	21.0000
	Std. Dev.	6.80530	6.60422	5.98241	7.86089	6.78977	6.22505	5.61119	4.16727	8.63373	5.57416
Jazan CC	N	16	15	15	15	14	16	15	14	15	16
	Mean	23.3750	25.2000	16.4667	25.1333	20.3571	##15.7500	##21.2000	**20.0714	##17.7333	#18.0625
	Median	23.5000	26.0000	16.0000	28.0000	20.0000	14.0000	22.0000	19.5000	19.0000	19.0000
	Std. Dev.	2.70493	3.94968	5.40987	3.94365	6.38034	4.68330	1.61245	5.26913	5.40458	4.13874

Table 31: A comparison between the ten CCs on the five dimensions of service quality from the Students perceptions

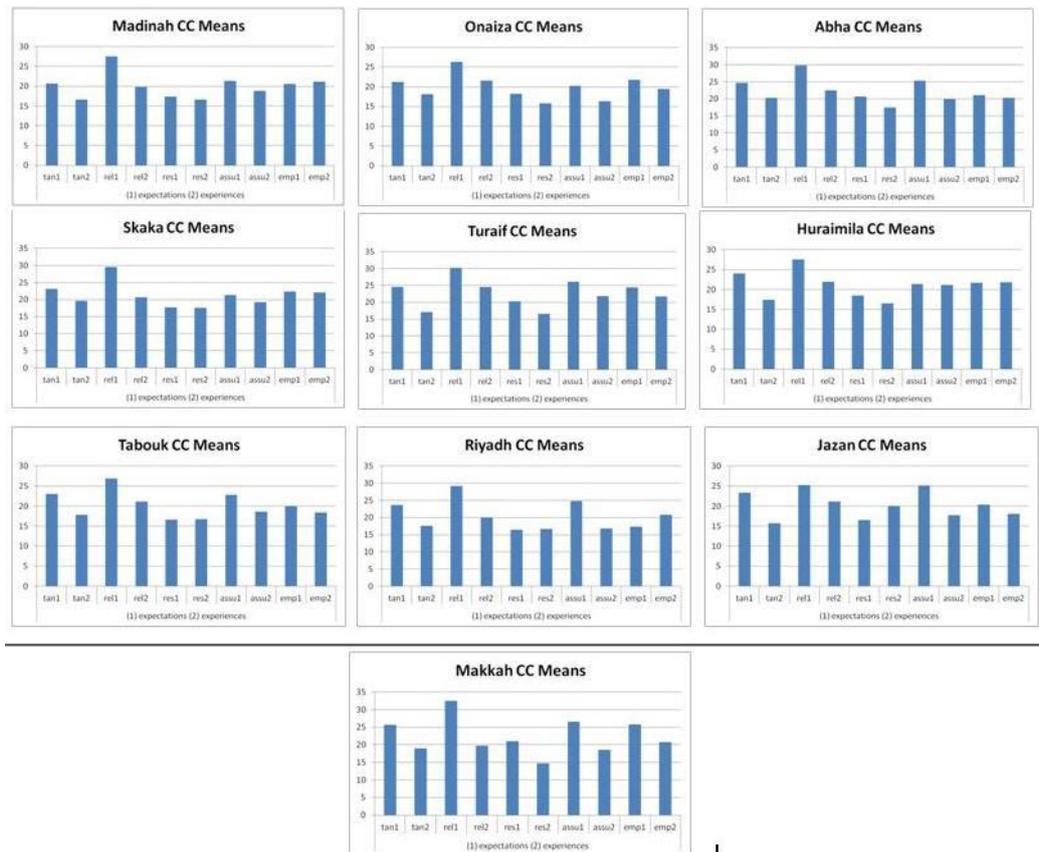


Figure 47: The Ten CCs Means on Service Quality Dimensions from Students Perception

Appendix 4: Samples of the research quantitative instruments

Dear faculty staff member,

This questionnaire is part of a PhD dissertation entitled *"Improving Quality Management in Community Colleges in the Kingdom of Saudi Arabia"* prepared by Mansour Aljanobi and supervised by Dr. James Tannock, Business School-University of Nottingham, UK.

The study aims to give a helpful hand to ongoing efforts to improve quality management at Saudi Community Colleges (CCs) so as to positively and directly enhance the way CCs are presenting their higher education services as well as help them provide their students, faculty and administrative staff with further support. It's against this backdrop that this study aims to achieve such desired objective via:

- 1- Examining relevant previous research and requirements for Quality Management's (QM) successful application in higher education institutions in general with a special focus on Saudi CCs from an international perspective;
- 2- Identifying the current status quo of QM in CCs in the KSA employing service quality empirical measurement tools;
- 3- Analysis and comparison of Saudi CCs both nationally according to the Quality Assurance Standards of the Saudi National Commission for Academic Accreditation & Assessment (NCAAA) and internationally; and
- 4- Suggesting an applicable framework for both applying and enhancing QM in CCs in the KSA adapted to the Saudi context.

As a consequence, the following questionnaire aims to identify the current status quo of QM application in CCs in the KSA from the perspective of CCs faculty at ten CCs located in ten different provinces in the KSA. In addition, other research instruments will be applied for other targeted groups belonging to the selected CCs.

Notably, you are not asked to provide any information about yourself in these questionnaires. As a result, please, feel free when responding to each of the following statements to provide us with your own opinions, experiences and beliefs. Besides, your response will be treated securely and confidentially for research purposes only. We sincerely hope that your responses will help in measuring the quality level of services currently applied in Saudi CCs. As a result, when



..... Community College
 Subject Area
 Years of Experience Subject Area

DIRECTIONS: Dear faculty Staff Member,

The following statements deal with your **expectations** of the higher education services that should be provided by CCs in the KSA. Please, show the extent to which you think it is important for a CC to possess those features described by each statement. You can do this by selecting only one of those seven numbers next to each statement. If you strongly agree with the statement, you should mark your choice with a (√) sign. If you strongly disagree with it, you should mark your choice with a (∇) sign. If your opinions are not strong enough to differentiate between both sides of the spectrum, please mark one of the five numbers in the middle. Notably, there are no right or wrong answers so all we are interested in is a number that best shows your **expectations** about CCs in the KSA and the higher education services they offer.

#	Item	Strongly disagree					Strongly agree						
		1	2	3	4	5	6	7					
1	CCs in the KSA should have up-to-date equipment												
2	CCs' physical facilities should be visually appealing												
3	The personal appearance of CCs' faculty and administrative staff should not matter.												
4	CCs cannot be expected to be entirely dependable.												
5	CCs' physical facilities should be appropriate to the type of services provided.												
6	When CCs promise to do something by a certain time, they should do so.												
7	When students have problems, CCs should be sympathetic and reassuring.												
8	CCs cannot be expected to tell students exactly when services will be performed.												
9	CCs should keep their records and data accurately.												
10	CCs should always provide their services at the time they promise to do so.												
11	CCs cannot be expected to pay students individual attention.												
12	It is not realistic for students to expect prompt service from the administrative staff of their CCs.												
13	CCs' administrative staff should always be willing to help students.												
14	Faculty will often be too busy to respond promptly to students' requests.												
15	It is unrealistic to expect CCs' faculty to know what the needs of their students are.												
16	Students should be able to feel safe in all their transactions with their CCs' administrative staff.												
17	CCs' faculty and administrative staff should always be polite.												
18	Faculty and administrative staff should get adequate support and ongoing development from their CCs to do their jobs well.												
19	It is unrealistic to expect CCs to have their students' best interests at heart.												
20	Students should always be able to trust the faculty and administrative staff of their CCs.												
21	CCs shouldn't be expected to have work hours convenient to all their students.												
22	CCs' faculty should provide all students with personal attention, by making sure that all assessments are properly marked and feedback is provided.												



..... Community College Years of Experience Subject Area

DIRECTIONS: Dear Faculty Staff Member,

The following statements deal with your **experiences** of higher education services currently provided by CCs in the KSA. Please, show the extent to which you think your CC already possesses those features described by each statement. You can do this by selecting only one of those seven numbers next to each statement. If you strongly agree with the statement, you should mark your choice with a (√) sign. If you strongly disagree with it, you should mark your choice with a (√) sign. If your opinions are not strong enough to differentiate between both sides of the spectrum, please mark one of the five numbers in the middle. Notably, there are no right or wrong answers so all we are interested in is a number that best shows your **experiences** about CCs in KSA and the higher education services they offer.

#	Item	Strongly disagree						Strongly agree
		1	2	3	4	5	6	7
1	My CC always has up-to-date equipment to support all teaching and learning processes.							
2	My CC's physical facilities are visually appealing.							
3	My CC's faculty and administrative staff do not have an appropriate appearance.							
4	My CC's Physical facilities appear inappropriate to the HEI.							
5	When my CC promises to do something by a certain time, it does so.							
6	When students have problems, my CC is always sympathetic and reassuring.							
7	My CC is not dependable.							
8	My CC provides its services at the time it promises to do so.							
9	My CC keeps its data and records clear and accurate.							
10	My CC does not tell its students when exactly services will be performed.							
11	Students do not expect prompt service from the administrative staff of my CC.							
12	Faculty and administrative staff of my CC are always willing to help and support students.							
13	Faculty at my CC are too busy to respond to students' requests promptly.							
14	Students always trust the faculty and administrative staff of my CC.							
15	Students of my CC do not feel safe in their transactions with my CC's administrative staff.							
16	Faculty and administrative staff of my CC are polite.							
17	Faculty and administrative staff in my CC do not get adequate support for developing their skills to do their jobs well.							
18	My CC does not pay students individual attention.							
19	Administrative staff and faculty of my CC always pay students personal attention.							
20	Faculty in my CC clearly know the needs of their students.							
21	In fact, my CC does not have its students' best interests at heart.							
22	My CC work hours are convenient to all its students.							



#	Item	Strongly disagree							Strongly agree
		1	2	3	4	5	6	7	
1-Institutional Context									
a-Mission, Goals & Objectives									
23	My CC has its own mission, goals and objectives.								
24	My CC faculty have never been involved in formulating such mission, goals and objectives.								
25	My CC's mission, goals, and objectives are appropriate for its current situation.								
26	My CC's mission, goals, and objectives are not so much related to each other.								
b-Governance & Administration									
27	My CC has a complete governing body that applies real leadership.								
28	Planning processes and policies are inadequately applied at my CC.								
29	My CC enjoys a very organized institutional context.								
c- Quality Assurance & Improvement									
30	My CC does not use documented quality assurance procedures for all key educational processes.								
31	My CC always uses documented indicators and/or benchmarks for internal quality evaluation of educational performance. (e.g. pass rates, course assessment stats)								
32	My CC regularly uses a formal process for identifying and solving quality problems in its educational provision (e.g. annual course review).								
33	My CC never evaluates its key educational performance measures against external benchmarks.								
34	My CC is committed to managing its projects according to quality standards.								
2-Quality of Learning & Teaching									
a-Learning & Teaching									
35	My CC is applying institutional monitoring and development of learning processes.								
36	My CC is adequately monitoring and evaluating students' learning outcomes.								
37	My CC is applying ongoing development of its learning and teaching programmes.								
3-Student Support									
a-Student Administration & Support Services									
38	My CC is applying medical and social services effectively.								
39	My CC is not applying student extracurricular activities effectively.								
b-Learning Resources									
40	My CC is providing effective learning resources for its students and faculty.								
41	When developing its learning resources, my CC doesn't consult its students or faculty.								

#	Item	Strongly disagree						Strongly agree
		1	2	3	4	5	6	7
	4-Supporting Infrastructure							
	a-Facilities & Equipment (housing)							
42	My CC does not have suitable student housing facilities.							
	b-Financial Planning & Management							
43	My CC plans and manages its financial resources well.							
	c-Employment Processes							
44	My CC does not evaluate its faculty annually.							
45	My CC performs an annual evaluation for its administrative staff.							
46	My CC does not make any efforts to attract highly qualified faculty and administrative staff.							
47	My CC administrative leaders do not solve problems encountered by its faculty or administrative staff.							
	5-Community Contributions							
	a-Research							
48	My CC does not have very effective research policies to support researchers.							
49	My CC has a high participation rate in research for its faculty and students.							
50	In my CC, researchers lack the needed research requirement.							
	b-Institutional Relationships with Community							
51	My CC has a very clear policy for its relationships with local community.							
52	My CC does not have strong relationships and communications with its local community.							

Dear Student,

This questionnaire is part of a PhD dissertation entitled "*Improving Quality Management in Community Colleges in the Kingdom of Saudi Arabia*" prepared by Mansour Aljanobi and supervised by Dr. James Tannock, Business School-University of Nottingham, UK.

عزيزي الطالب

تمثل هذه الاستبانة جزءاً من أطروحة دكتوراه عنونها (تحسين إدارة الجودة في كليات المجتمع في المملكة العربية السعودية) والتي أعدها الباحث منصور بن عبدالرحمن الجنوبي لنيل درجة الدكتوراه في إدارة الأعمال. ويشرف على هذه الأطروحة الدكتور جيمس تانوك رئيس قسم إدارة العمليات بكلية إدارة الأعمال بجامعة نوتنغهام، بالمملكة المتحدة.

Notably, the study aims to give a helpful hand to ongoing efforts to improve quality management at Saudi Community Colleges (CCs) so as to positively and directly enhance the way CCs are presenting their higher education services as well as help them provide their students, faculty and administrative staff with further support. It's against this backdrop that this study aims to achieve such desired objective via:

تهدف هذه الدراسة إلى تقديم المساعدة في الجهود القائمة لتحسين الجودة في كليات المجتمع السعودية ولتطوير آليات ووسائل كليات المجتمع في تحسين خدماتهم التعليمية من ناحية، ومساعدتها لتهيئة البيئة الداعمة لطلابها وأعضاء هيئة التدريس والعاملين فيها عموماً. إن هذه الدراسة تهدف تحديداً إلى ما يلي:

- 6- Examining relevant previous research and requirements for Quality Management (QM) successful application in higher education institutions in general with a special focus on Saudi CCs from an international perspective;

1. النظر في الدراسات السابقة حول التطبيقات الناجحة في مجال إدارة الجودة في مؤسسات التعليم العالي. مع تركيز أكبر على كليات المجتمع السعودية من منظور دولي.
- 7- Identifying the current status quo of QM in CCs in the KSA employing service quality empirical measurement tools;
 2. التعرف على الوضع الحالي لإدارة الجودة في كليات المجتمع في السعودية من خلال توظيف أدوات قياس جودة الخدمة.
- 8- Analysis and comparison of Saudi CCs both nationally according to the Quality Assurance Standards of the Saudi National Commission for Academic Accreditation & Assessment (NCAAA) and internationally; and
 3. تحليل ومقارنة كليات المجتمع في السعودية محلياً بالنظر إلى مدى تطبيق معايير توكيد الجودة الصادرة من هيئة الاعتماد الأكاديمي السعودية، وبالمعايير الدولية.
- 9- Suggesting an applicable framework for both applying and enhancing QM in CCs in the KSA adapted to the Saudi context.
 4. اقتراح إطار عمل موافق للبيئة السعودية لتطبيق وتحسين إدارة الجودة في كليات المجتمع بالمملكة العربية السعودية.

As a consequence, the following questionnaires aim to identify the current status quo of QM application in CCs in the KSA from the perspective of CCs faculty at ten CCs located in ten different provinces in the KSA. In addition, other research instruments will be applied for other targeted groups belonging to the selected CCs.

وبناء على ذلك، فإن هذه الاستبانة تهدف إلى دراسة الوضع الحالي لتطبيق إدارة الجودة في كليات المجتمع بالسعودية من وجهة نظر الطلاب في عشر من كليات المجتمع بالسعودية في عشر مناطق إدارية مختلفة. كما أن هناك أدوات أخرى إضافة إلى هذه الاستبانة ستطبق على العينة نفسها.

Notably, you are not asked to provide any information about yourself in these questionnaires. As a result, please, feel free when responding to each of the following statements to provide us with your own opinions, experiences and beliefs. Besides, your response will be treated securely and confidentially for research purposes only. We sincerely hope that your responses will help in measuring the quality level of services currently applied in Saudi CCs. As a result, when compared to other similar quality standards both nationally and internationally, such data can describe the current gap and help in determining what needs to be done in order to successfully apply and improve quality management at all Saudi CCs without exception.

تجدر الإشارة هنا إلى أنك غير مطالب ببيان أي معلومات عن شخصك الكريم في هذه الأدوات جميعها. وأرجو تكون في غير حرج لإبداء استجابتك لأي من تساؤلات هذه الاستبانة فيما يخص آراءك أو تجاربك ووجهات نظرك. وسيتم التعامل مع إجاباتك بسرية ولأغراض البحث العلمي فقط. أرجو أن تكون استجاباتك معينة في قياس مستوى جودة الخدمات الأكاديمية المقدمة حالياً وإدارة الجودة المطبقة حالياً في كليات المجتمع بالسعودية. حيث يمكن أن تفيد هذه المعلومات ووصف الواقع هذا في مقارنة أداء كليات المجتمع السعودية محلياً ودولياً، وتعين في توصيف الفجوة بين المتحقق والمستهدف وتحديد المطلوب لتطبيق وتحسين إدارة الجودة في جميع كليات المجتمع السعودية.



..... Community College كلية المجتمع ب.....						
Student	level	الطالب	مستوى.....	Subject	التخصص	مجال
.....						

DIRECTIONS: Dear student,

The following statements deal with your **expectations** of the higher education services that should be provided by CCs in the KSA. Please, show the extent to which you think it is important for a CC to possess those features described by each statement. You can do this by selecting only one of those seven numbers next to each statement. If you strongly agree with the statement, you should mark your choice with a (√) sign. If you strongly disagree with it, you should mark your choice with a (√) sign. If your opinions are not strong enough to differentiate between both sides of the spectrum, please mark one of the five numbers in the middle. Notably, there are no right or wrong answers so all we are interested in is a number that best shows your **expectations** about CCs in the KSA and the higher education services they offer.

عزيزي الطالب

تدور العبارات التالية حول **توقعاتك** عن خدمة التعليم العالي التي ينبغي أن تقدمها أي كلية مجتمع في المملكة العربية السعودية. أرجو أن توضح ما مدى أهمية أن تحوز أي كلية مجتمع بالسعودية تلك المواصفات المبينة في كل عبارة فيما يلي. بين إجابتك من خلال اختيار واحدة فقط من تحت الرقم (√) تحت الرقم واحد، وإذا كنت لا توافق بشدة فضع علامة (√) الاختيارات السبعة التالية لكل عبارة. إذا كنت توافق بشدة فضع علامة سبعة. وإذا كان رأيك ما بين ذلك فضع العلامة تحت الأرقام من اثنين إلى ستة بما يعبر بشكل أفضل عن رأيك. ويجدر التنبيه أنه ليس هناك إجابات صحيحة أو خاطئة وإنما كل ما تقصده الاستبانة هو اختيار الرقم الذي يعبر أكثر عن **توقعاتك** عن ما ينبغي أن تقوم به كليات المجتمع في السعودية لتقديم خدمة التعليم العالي لطلابها.

#	Item البند	Strongly disagree						Strongly agree
		لا أوافق بشدة	1	2	3	4	5	6
1	CCs in the KSA should have up-to-date equipment. ينبغي أن يكون لكليات المجتمع في المملكة تجهيزات حديثة.							
2	CCs' physical facilities should be visually appealing. ينبغي أن تكون التجهيزات المادية لكليات المجتمع ذات شكل جذاب.							
3	The personal appearance of CCs' faculty and administrative staff should not matter. المظهر الشخصي لأعضاء هيئة التدريس والموظفين في تلك الكليات ليس مهماً.							
4	CCs cannot be expected to be entirely dependable. من غير المتوقع أن تكون تلك الكليات مستقلة تماماً وإنما تعتمد في قراراتها على جهات أخرى.							
5	CCs' physical facilities should be appropriate to the type of services provided. ينبغي أن تكون التجهيزات المادية في كليات المجتمع متناسبة مع الخدمات التي تقدمها.							
6	When CCs promise to do something by a certain time, they should do so. حينما تعد كليات المجتمع أن تقوم بشيء ما في وقت معين فإنها ينبغي أن تلتزم بذلك.							
7	When students have problems, CCs should be sympathetic and reassuring. حينما يكون لدى طلاب كليات المجتمع مشكلات معينة فإن على كليات المجتمع أن تعتني بها وتتأكد من مراعاتها.							
8	CCs cannot be expected to tell students exactly when services will be performed. ليس من المتوقع أن تحدد كليات المجتمع لطلابها أوقاتاً محددة لتقديم خدماتها لهم.							



#	Item البند	Strongly disagree						Strongly agree
		لا أوافق بشدة	1	2	3	4	5	6
9	CCs should keep their records and data accurately. ينبغي أن تحفظ كليات المجتمع سجلاتها وبياناتها صحيحة ودقيقة.							
10	CCs should always provide their services at the time they promise to do so. ينبغي لكليات المجتمع أن تقدم خدماتها حسب التوقيت الذي وعدت به.							
11	CCs cannot be expected to pay students individual attention. من غير المتوقع أن تولي كليات المجتمع اهتماماً بطلابها بشكل فردي.							
12	It is not realistic for students to expect prompt service from the administrative staff of their CCs. من غير المنطقي أن يتوقع الطلاب خدمة سريعة من الموظفين في كليات المجتمع.							
13	CCs' administrative staff should always be willing to help students. ينبغي أن يكون الموظفون في كليات المجتمع قادرين دائماً على مساعدة الطلاب.							
14	Faculty will often be too busy to respond promptly to students' requests. من المقبول أن يكون أعضاء هيئة التدريس مشغولين جداً عن الاستجابة السريعة لاحتياجات طلابهم.							
15	It is unrealistic to expect CCs' faculty to know what the needs of their students are. من غير المنطقي توقع أن يكون أعضاء هيئة التدريس في كليات المجتمع على دراية باحتياجات طلابهم.							
16	Students should be able to feel safe in all their transactions with their CCs' administrative staff. ينبغي أن يكون الطلاب قادرين على الشعور بالأمان في جميع تعاملاتهم مع الموظفين في كليات المجتمع.							
17	CCs' faculty and administrative staff should always be polite. ينبغي أن يكون أعضاء هيئة التدريس والموظفون في كليات المجتمع مهذبين في تعاملهم.							
18	Faculty and administrative staff should get adequate support and ongoing development from their CCs to do their jobs well.							



#	البند Item	Strongly disagree لا أوافق بشدة						Strongly agree أوافق بشدة
		1	2	3	4	5	6	7
	ينبغي أن يحصل أعضاء هيئة التدريس والموظفون على الدعم الملائم والتطوير المستمر من كليات المجتمع حتى يقوموا بأدوارهم بكفاءة.							
19	It is unrealistic to expect CCs to have their students' best interests at heart.							
	من غير المنطقي توقع أن تضع كليات المجتمع اهتمامات طلابها نصب أعينها.							
20	Students should always be able to trust the faculty and administrative staff of their CCs.							
	ينبغي أن يثق الطلاب دوماً بأعضاء هيئة التدريس والموظفين في كليات المجتمع.							
21	CCs shouldn't be expected to have work hours convenient to all their students.							
	من غير المتوقع أن تعمل كليات المجتمع ساعات عمل متناسبة مع جميع طلابها.							
22	CCs' faculty should provide all students with personal attention, by making sure that all assessments are properly marked and feedback is provided.							
	يجب أن يولي جميع أعضاء هيئة التدريس بكليات المجتمع طلابهم اهتماماً خاصاً من خلال التأكد أن جميع الاختبارات صححت بشكل مناسب وأن التغذية الراجعة قدمت للطلاب بعد ذلك.							



..... Community College كلية المجتمع بـ

Student level الطالب مستوى Subject area التخصص مجال

DIRECTIONS: Dear student,

The following statements deal with your **experiences** of higher education services currently provided by CCs in the KSA. Please, show the extent to which you think your CC already possesses those features described by each statement. You can do this by selecting only one of those seven numbers next to each statement. If you strongly agree with the statement, you should mark your choice with a (√) sign. If you strongly disagree with it, you should mark your choice with a (√) sign. If your opinions are not strong enough to differentiate between both sides of the spectrum, please mark one of the five numbers in the middle. Notably, there are no right or wrong answers so all we are interested in is a number that best shows your **experiences** about CCs in KSA and the higher education services they offer.

عزيزي الطالب

تدور العبارات التالية حول **تجربتك** عن خدمة التعليم العالي في المملكة العربية السعودية التي تقدمها حالياً كلية المجتمع التي تنتسب لها. أرجو أن توضح ما مدى ما حققته كلية المجتمع التي تنتسب لها من تلك المواصفات المبينة في كل عبارة فيما يلي. بين إجابتك من خلال اختيار واحدة فقط من الاختيارات تحت الرقم سبعة. وإذا كان رأيك ما (√) تحت الرقم واحد، وإذا كنت لا توافق بشدة فضع علامة (√) السبعة التالية لكل عبارة. إذا كنت توافق بشدة فضع علامة بين ذلك فضع العلامة تحت الأرقام من اثنين إلى ستة بما يعبر بشكل أفضل عن رأيك. ويجدر التنبيه أنه ليس هناك إجابات صحيحة أو خاطئة وإنما كل ما تقصده الاستبانة هو اختيار الرقم الذي يعبر أكثر عن **تجربتك** عن ما قامت به وتقوم به حالياً كلية المجتمع التي تنتسب لها في تقديم خدمة التعليم العالي لطلابها.

#	Item البند	Strongly disagree						Strongly agree
		لا أوافق بشدة	1	2	3	4	5	6
1	My CC always has up-to-date equipment to support all teaching and learning processes. كلية المجتمع التي أدرس فيها لديها تجهيزات حديثة تدعم جميع عمليات التعليم والتعلم.							
2	My CC's physical facilities are visually appealing. تجهيزات كلية المجتمع التي أدرس فيها ذات مظهر جذاب							
3	My CC's faculty and administrative staff do not have an appropriate appearance. أعضاء هيئة التدريس والموظفون في كلية المجتمع التي أدرس فيها لا يظهرون بمظهر حسن.							
4	My CC's Physical facilities appear inappropriate to the HEI. التجهيزات المادية في كلية المجتمع التي أدرس فيها لا تليق بمؤسسات التعليم العالي.							
5	When my CC promises to do something by a certain time, it does so. حينما تعد كلية المجتمع التي أدرس فيها على القيام بشيء في توقيت معين فإنها تفي بذلك الوعد.							
6	When students have problems, my CC is always sympathetic and reassuring. حينما يواجه الطلاب مشكلات ما، فإن كلية المجتمع التي أدرس فيها دائماً ما تعتني بها وتراعيها.							
7	My CC is not dependable. كلية المجتمع التي أدرس فيها مستقلة تماماً ولا تحتاج إلى جهات أخرى في اتخاذ قراراتها.							
8	My CC provides its services at the time it promises to do so. تقدم كلية المجتمع التي أدرس فيها خدماتها في الوقت الذي وعدت به.							
9	My CC keeps its data and records clear and accurate. تحافظ كلية المجتمع التي أدرس فيها على سجلاتها وبياناتها واضحة ودقيقة.							
10	My CC does not tell its students when exactly services will be performed. لا تبلغ كلية المجتمع التي أدرس فيها طلابها بمواعيد تنفيذ الخدمات التي تقدمها لهم.							



#	Item البند	Strongly disagree						Strongly agree
		لا أوافق بشدة	1	2	3	4	5	6
11	Students do not expect prompt service from the administrative staff of my CC. لا يتوقع الطلاب في كلية المجتمع التي أدرس فيها خدمة سريعة من الموظفين.							
12	Faculty and administrative staff of my CC are always willing to help and support students. أعضاء هيئة التدريس والموظفون في كلية المجتمع التي أدرس فيها قادرين دوماً على مساعدة الطلاب ودعمهم.							
13	Faculty at my CC are too busy to respond to students' requests promptly. أعضاء هيئة التدريس في كلية المجتمع التي أدرس فيها دائماً مشغولون جداً عن الاستجابة لاحتياجات الطلاب سريعاً.							
14	Students always trust the faculty and administrative staff of my CC. يثق الطلاب في كلية المجتمع التي أدرس فيها بأعضاء هيئة التدريس والموظفين.							
15	Students of my CC do not feel safe in their transactions with my CC's administrative staff. يشعر الطلاب في كلية المجتمع التي أدرس فيها بالأمان في تعاملاتهم مع الموظفين.							
16	Faculty and administrative staff of my CC are polite. أعضاء هيئة التدريس والموظفون في كلية المجتمع التي أدرس فيها مهذبون.							
17	Faculty and administrative staff in my CC do not get adequate support for developing their skills to do their jobs well. لا يحصل أعضاء هيئة التدريس والموظفون في كلية المجتمع التي أدرس فيها على الدعم المطلوب والتطوير المستمر لتطوير قدراتهم لأداء أعمالهم بكفاءة.							
18	My CC does not pay students individual attention. لا تولي كلية المجتمع التي أدرس فيها اهتماماً بالطلاب بشكل فردي.							
19	Administrative staff and faculty of my CC always pay students personal attention. الموظفون وأعضاء هيئة التدريس في كلية المجتمع التي أدرس فيها يعتبرون بالطلاب بشكل شخصي.							
20	Faculty in my CC clearly know the needs of their students. يعرف أعضاء هيئة التدريس في كلية المجتمع التي أدرس فيها بشكل واضح احتياجات طلابهم.							
21	In fact, my CC does not have its students' best interests at heart. في الحقيقة، لا تضع كلية المجتمع التي أدرس فيها اهتمامات طلابها نصب أعينها.							
22	My CC work hours are convenient to all its students. ساعات العمل في كلية المجتمع التي أدرس فيها مناسبة لجميع طلابها.							



Top Managers's Questionnaire (In Arabic).

المكرم عميد/ وكيل كلية المجتمع

السلام عليكم ورحمة الله وبركاته وبعد،

فتمثل هذه الاستبانة جزءاً من أطروحة دكتوراه عنوانها (تحسين إدارة الجودة في كليات المجتمع في المملكة العربية السعودية) والتي أعدها الباحث منصور بن عبدالرحمن الجنوبي لنيل درجة الدكتوراه في إدارة الأعمال. ويشرف على هذه الأطروحة الدكتور جيمس تانوك رئيس قسم إدارة العمليات بكلية إدارة الأعمال بجامعة نوتنغهام، بالمملكة المتحدة.

تهدف هذه الدراسة إلى تقديم المساعدة في الجهود القائمة لتحسين الجودة في كليات المجتمع السعودية ولتطوير آليات ووسائل كليات المجتمع في تحسين خدماتهم التعليمية من ناحية، ومساعدتها لتهيئة البيئة الداعمة لطلابها وأعضاء هيئة التدريس والعاملين فيها عموماً. إن هذه الدراسة تهدف تحديداً إلى ما يلي:

1. النظر في الدراسات السابقة حول التطبيقات الناجحة في مجال إدارة الجودة في مؤسسات التعليم العالي. مع تركيز أكبر على كليات المجتمع السعودية من منظور دولي.
2. التعرف على الوضع الحالي لإدارة الجودة في كليات المجتمع في السعودية من خلال توظيف أدوات قياس جودة الخدمة.
3. تحليل ومقارنة كليات المجتمع في السعودية محلياً بالنظر إلى مدى تطبيق معايير توكيد الجودة الصادرة من هيئة الاعتماد الأكاديمي السعودية، وبالمعايير الدولية.
4. اقتراح إطار عمل موافق للبيئة السعودية لتطبيق وتحسين إدارة الجودة في كليات المجتمع بالمملكة العربية السعودية.

وبناء على ذلك، فإن هذه الاستبانة تهدف إلى دراسة الوضع الحالي لتطبيق إدارة الجودة في كليات المجتمع بالسعودية من وجهة نظر القيادات العليا في عشر من كليات المجتمع بالسعودية في عشر مناطق إدارية مختلفة. كما أن هناك أدوات أخرى إضافة إلى هذه الاستبانة ستطبق على العينة نفسها.

تجدر الإشارة هنا إلى أنك غير مطالب ببيان أي معلومات عن شخصك الكريم في هذه الأدوات جميعها. وأرجو أن تبدي استجابتك بدون تردد لأي من تساؤلات هذه الاستبانة فيما يخص آراءك أو تجاربك ووجهات نظرك. وسيتم التعامل مع إجاباتك بسرية ولأغراض البحث العلمي فقط. أرجو أن تكون استجاباتك معينة في قياس مستوى جودة الخدمات الأكاديمية المقدمة حالياً وإدارة الجودة المطبقة حالياً في كليات المجتمع بالسعودية. حيث يمكن أن تفيد هذه المعلومات ووصف الواقع هذا في مقارنة أداء كليات المجتمع السعودية محلياً ودولياً، وتعين في توصيف الفجوة بين المتحقق والمستهدف وتحديد المطلوب لتطبيق وتحسين إدارة الجودة في جميع كليات المجتمع السعودية.



كلية المجتمع ب سنوات الخبرة مجال التخصص

المكرم عميد/ وكيل كلية المجتمع

تدور العبارات التالية حول توقعاتك عن خدمة التعليم العالي التي ينبغي أن تقدمها أي كلية مجتمع في المملكة العربية السعودية. أرجو أن توضح ما مدى أهمية أن تحوز أي كلية مجتمع بالسعودية تلك المواصفات المبينة في كل عبارة فيما يلي. بين إجابتك من خلال اختيار واحدة فقط من الاختيارات السبعة التالية لكل عبارة. إذا كنت لا توافق بشدة فضع علامة (√) تحت الرقم واحد، وإذا كنت توافق بشدة فضع علامة (√) تحت الرقم سبعة. وإذا كان رأيك ما بين ذلك فضع العلامة تحت الأرقام من اثنين إلى ستة بما يعبر بشكل أفضل عن رأيك. ويجدر التنبيه أنه ليس هناك إجابات صحيحة أو خاطئة وإنما كل ما تقصده الاستبانة هو اختيار الرقم الذي يعبر أكثر عن توقعاتك عن ما ينبغي أن تقوم به كليات المجتمع في السعودية لتقديم خدمة التعليم العالي لطلابها.

#	البند	لاوافق بشدة						
		1	2	3	4	5	6	7
1	ينبغي أن يكون لكليات المجتمع في المملكة تجهيزات حديثة.							
2	ينبغي أن تكون التجهيزات المادية لكليات المجتمع ذات شكل جذاب.							
3	المظهر الشخصي لأعضاء هيئة التدريس والموظفين في تلك الكليات ليس مهماً.							
4	لا يمكن أن تكون كليات المجتمع مستقلة تماماً وإنما تعتمد في قراراتها على جهات أخرى.							
5	ينبغي أن تكون التجهيزات المادية في كليات المجتمع متناسبة مع الخدمات التي تقدمها.							
6	حينما تعد كليات المجتمع أن تقوم بشيء ما في وقت معين فإنها ينبغي أن تلتزم بذلك.							
7	حينما يكون لدى طلاب كليات المجتمع مشكلات معينة فإن على كليات المجتمع أن تعتنى بها وتتأكد من مراعاتها.							
8	لا يمكن أن تحدد كليات المجتمع لطلابها أوقاتاً محددة لتقديم خدماتها لهم.							
9	ينبغي أن تحفظ كليات المجتمع سجلاتها وبياناتها صحيحة ودقيقة.							
10	ينبغي لكليات المجتمع أن تقدم خدماتها حسب التوقيت الذي وعدت به.							
11	لا يمكن أن تولي كليات المجتمع اهتماماً بطلابها بشكل فردي.							
12	لا ينبغي للطلاب توقع خدمة سريعة من الموظفين في كليات المجتمع.							
13	ينبغي أن يكون الموظفون في كليات المجتمع قادرين دائماً على مساعدة الطلاب.							
14	من المقبول أن يكون أعضاء هيئة التدريس مشغولين جداً عن الاستجابة السريعة لاحتياجات طلابهم.							
15	لا يتوقع أن يكون أعضاء هيئة التدريس في كليات المجتمع على دراية باحتياجات طلابهم.							
16	ينبغي أن يكون الطلاب قادرين على الشعور بالأمان في جميع تعاملاتهم مع الموظفين في كليات المجتمع.							
17	ينبغي أن يكون أعضاء هيئة التدريس والموظفون في كليات المجتمع مهذبين في تعاملهم.							
18	ينبغي أن يحصل أعضاء هيئة التدريس والموظفون على الدعم اللازم والتطوير المستمر من كليات المجتمع حتى يقوموا بأدوارهم بكفاءة.							
19	لا يتوقع أن تضع كليات المجتمع اهتمامات طلابها نصب أعينها.							
20	ينبغي أن يثق الطلاب دوماً بأعضاء هيئة التدريس والموظفين في كليات المجتمع.							
21	من غير المتوقع أن تعمل كليات المجتمع ساعات عمل متناسبة مع جميع طلابها.							
22	يجب أن يولي جميع أعضاء هيئة التدريس بكليات المجتمع طلابهم اهتماماً خاصاً من خلال التأكد أن جميع الاختبارات صححت بشكل مناسب وأن التغذية الراجعة قدمت للطلاب بعد ذلك.							



DIRECTIONS: Top Managers,

The following statements deal with your **expectations** of the higher education services that should be provided by CCs in the KSA. Please, show the extent to which you think it is important for a CC to possess those features described by each statement. You can do this by selecting only one of those seven numbers next to each statement. If you strongly agree with the statement, you should mark your choice with a (√) sign. If you strongly disagree with it, you should mark your choice with a (√) sign. If your opinions are not strong enough to differentiate between both sides of the spectrum, please mark one of the five numbers in the middle. Notably, there are no right or wrong answers so all we are interested in is a number that best shows your **expectations** about CCs in the KSA and the higher education services they offer.

#	Item	Strongly disagree						Strongly agree
		1	2	3	4	5	6	7
1	CCs in the KSA should have up-to-date equipment.							
2	CCs' physical facilities should be visually appealing.							
3	The personal appearance of CCs' faculty and administrative staff should not matter.							
4	CCs cannot be expected to be entirely dependable.							
5	CCs' physical facilities should be appropriate to the type of services provided.							
6	When CCs promise to do something by a certain time, they should do so.							
7	When students have problems, CCs should be sympathetic and reassuring.							
8	CCs cannot be expected to tell students exactly when services will be performed.							
9	CCs should keep their records and data accurately.							
10	CCs should always provide their services at the time they promise to do so.							
11	CCs cannot be expected to pay students individual attention.							
12	It is not realistic for students to expect prompt service from the administrative staff of their CCs.							
13	CCs' administrative staff should always be willing to help students.							
14	Faculty will often be too busy to respond promptly to students' requests.							
15	It is unrealistic to expect CCs' faculty to know what the needs of their students are.							
16	Students should be able to feel safe in all their transactions with their CCs' administrative staff.							
17	CCs' faculty and administrative staff should always be polite.							
18	Faculty and administrative staff should get adequate support and ongoing development from their CCs to do their jobs well.							
19	It is unrealistic to expect CCs to have their students' best interests at heart.							
20	Students should always be able to trust the faculty and administrative staff of their CCs.							
21	CCs shouldn't be expected to have work hours convenient to all their students.							
22	CCs' faculty should provide all students with personal attention, by making sure that all assessments are properly marked and feedback is provided.							

Appendix 5: Interview Questions

Interviews targeted group would comprise ten Top Managers from the ten selected CCs in the KSA. As a result, each selected CC would be represented by a Top Managers.

The questions to be posed by the researcher to each interviewee would be formulated according to the answers provided by each interviewee.

Furthermore, the used questions would focus on examining and evaluating the current application level of the eleven QAS provided by the Saudi NCAAA as well as the level to which various CCs in the KSA are applying QM. In addition, they would also measure the shortcomings encountered by those CCs that needs elimination in order to reach successful implementation and development of QM at CCs in the KSA.

Notably, the following interview questions would be the main questions and issues for in-depth focus at each interview taking into account the fact that other questions and issues would definitely emerge as a result of the ongoing discussions with each interviewee.

1- Institutional Context:

a. Mission, Goals & Objectives:

Does your CC have mission, goals and objectives?

How do you describe their relation to each other?

How do you describe their relation to your CC's situation?

Have faculty staff members at your CC participated in their formulation?

To what extent do you evaluate the importance of their participation?

b. Governance & Administration:

Does your CC have a governing body?

What is the assigned role it plays?

Is there any contradiction between its role and that of the college dean?

To which level do you evaluate your CC's application of planning processes?

In percentage, can you evaluate the administrative context of your CC?

Could you explain why you have chosen this percentage, please?

c. Management of Quality Assurance & Improvement:

Do you know about Quality Assurance Systems and Standards?

What are they?

What are the aims of QAS?

Does your CC apply quality assurance processes? If yes, to what extent? If no, why?

How does your CC evaluate its progress and achievement? (In light of external indicators and benchmarking)

Does your CC maintain clear data and information through an overall data base?

What do you do regarding standards of project management?



To what extent your CC is committed to enhance quality?

2- Quality of Learning & Teaching:

a. Learning & Teaching:

Does your CC apply institutional monitoring and development of its learning processes?
(How/Why)

Does your CC apply institutional monitoring and development of its teaching processes?

How does your CC monitor and evaluate its students' learning outcomes?

What are the major aspects of the educational support provided by your CC for its students?

To what extent does your CC develop its faculty staff members' abilities and skills?

3- Student Support:

a. Student Administration & Support Services:

To what level your CC is applying:

Student administration and support services?

Medical and social services?

Student extracurricular activities?

b. Learning Resources:

Does your CC provide effective learning resources for its students and academic staff? If yes, could you, please, provide some examples? If no, what are the reasons for such shortcoming?

What is the importance of responding to students and academic staff when developing learning resources? To what extent is your CC applying that standard?

4- Supporting Infrastructure:

a. 1-Facilities & Equipment (housing):

What about the infrastructure needed to support teaching and learning processes at your CC?

To what extent can your CC be considered a safe healthy environment for its students and staff?

How do you evaluate your CC's current situation in providing student housing?

5- Financial Planning & Management:

How do you describe the management of available financial resources at various Saudi CCs generally, and at your CC in particular?

6- Employment Processes:

To what extent do you evaluate your CC's provision of professional development for its:
Academic staff?
Employees?

To what extent do you find your CC's performance at conducting annual evaluation for its:
Academic staff?
Employees?

What are the possible means that Saudi CCs can employ to promote a higher quality of its:
Teaching staff?



Employees?

What are the procedures used by your CC for solving problems among its staff and employees?

7- Community Contributions:

a. Research:

To what extent do academic staff members at your CC participate in academic research?

To what extent is it important to apply effective research policies to support researchers at Saudi CCs?

Does your CC have such policies? Does it actually apply them? Why? Or Why not?

What are the top-priority requirements needed by your CC's academic researchers?

Does your CC provide its researchers with all needed research requirements? If yes, to what extent? If no, why?

b. Institutional Relationships with the Community:

How does your CC communicate with its surrounding local community?

Does it have a clear policy for such communication? If yes, is it possible to provide the researcher with its copy?