UNIVERSITY OF BAHRAIN
COLLEGE OF BUSINESS ADMINISTRATION
GRADUATE STUDIES PROGRAM



The Readiness of Implementing Total Quality Management in Higher Education: The Case of Arab Open University-Bahrain Branch

A Master Project
(MGT 698)

Submitted by:

Mrs. Samira El Ouali El Alami

Supervised by

Dr. Minwir Al Shammari

June / 2015

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Declaration

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I hereby declare that this study is the result of my original work and has not been submitted to any other Institution of higher learning for the award of any degree.

Name: Samira El Ouali El Alami

ID # 20121064

Signature: Date:

Dedication

I would like to dedicate this project research report to my husband: Muneer Jaberi, my son: Adnan Muneer, my daughter: Aline Muneer, my parents, my brother, my sisters, my mother in law, my father in law, my brothers and sisters in law for their unconditional moral support throughout my study.

Acknowledgment

I express my sincere gratitude to my lecturers and classmates who immensely contributed to this work. Special thanks go to the dean of college of business administration, Dr. Minwir Al Shammarri who was my supervisor in this project, I learnt a lot from his experience, especially to be more independent.

Special thanks to our great MBA co-ordinator, Dr. Farid Al Sahn for his valuable advices and support in this work and throughout my studies at university of Bahrain.

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I would also like to extend my thanks to the Arab Open University who participated in this research as well as to all individual respondents to the self administered questionnaires and the online survey. Special thanks to Dr. Bassem Shebeb, the dean of AOU, Kuwait, branch, Dr. Khaldoon Al Roomi, the branch director of AOU, Bahrain branch, Dr. Hesham AlAsheeri the assistant manager of educational affairs and Mrs. Lulwa Abed the quality coordinator at AOU, Bahrain branch for their great cooperation.

Avery special thanks to Dr. Alawi Hashimi who gave me the opportunity to study at University of Bahrain.

Abstract

Total Quality Management (TQM) was established and used in developed countries as a new philosophy for managing organizations. However, TQM in developing countries has received little attention and little research has been conducted into the successful implementation of TQM systems in these countries.

The research described in this project assesses the readiness of Arab Open University to implement total quality management (TQM) within the institution.

In order to measure this readiness, the researcher studied the relationship between the dimensions of TQM and the implementation of TQM.

Both self administered survey and online survey were employed to fulfill the study objectives. Both of them aimed to determine the relationship between TQM barriers and the implementation of TQM in order to measure the readiness of AOU to adopt the program of TQM inside the institution.

All employees were targeted from top level to low level, because total quality management is concerned with total employees' involvement.

Analysis of the data identified five potential impediments to the successful implementation of TQM. These impediments are related to strategy, structure, human resources, context, and procedures.

The results indicate that AOU has a high readiness to implement TQM, in terms of organizational strategy, human resources, contextual, and procedural dimensions, whereas, the readiness in terms of structural dimensions is moderate. In general, this would have a critical impact on improving the AOU competitiveness.

The study has made an original contribution to the academic and practical knowledge of quality management. This is an important first descriptive empirical study of TQM implementation in a private university in the kingdom of Bahrain.

The researcher recommended that AOU should not leave the matter to chance; it should rather set up a well-defined and clearly-structured innovation program that is the outcome of the participation of, and aims at the involvement of, all employees.

Some recommendations for further research have been derived from this research.

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Abbreviations & Acronyms

AMR	Annual Monitoring Report
AOU	Arab Open University
CI	Continuous Improvement
CICP	Centre for Inclusion and Ccollaborative Partnerships
DHR	The Directorate of Higher Education Reviews
HQ	Head quarters
HR	Human Resources
ITC	Information Technology and Computing
MBNQA	Malcolm Baldrige National Quality Award
NAQQAET	National Authority for Qualification and quality Assurance of Education and Training
QAAET	Quality assurance Authority of Education and Training
TQE	Total Quality in Education
TQM	Total Quality Management
UK	United Kingdom
SPSS	Statistical Package for the Social Sciences

Chapter One

Introduction

1-1 Introduction to chapter 1

This chapter presents the background of the research, followed by the problem statement, research objectives, significance and limitation of the study. An overview of Arab Open University is then given. Finally, the chapter ends with the organization of the study and a brief summary.

1-2 Background of the Study

Total Quality Management (TQM) refers to an approach that aims at creating the optimal conditions and environment for organizations and economies to develop permanently, through the effective integration of the various organizational functions, and making best possible use of their workforce's knowledge, skills and expertise. However, in spite of the great benefits it can generate to organizations as well as nations, TQM often faces tremendous challenges to be implemented. Determining the readiness of a higher education institution to implement TQM motivates its managers to set up plans and programs so as to involve all the stakeholders for a successful implementation of TQM, so as to boost the performance of the performance and promote the services it provides to its studentship, faculty, staff and the local community, and in this way, to accomplish excellence and incredibleness in business (Jacobsen, 2008).

Many countries all over the world have set up organizations that monitor, supervise and follow up the work of universities so as to help them, and in some cases even to force them, to adopt and implement comprehensive quality standards. Bahrain is one of these countries that have institutes external quality audits of their various education establishments at their various levels and both the public and private sectors. This complies with the Guidelines of Good Practice of the International Network for Quality Assurance Authority of Education and Training (QAAET).The survey procedure evaluates the viability of an institutional quality confirmation courses of action against a predefined arrangement of value pointers through which

ranges of quality and shortcoming can be identified, (Annual report en 2012 QAAET).

Under this system of review and audit, Arab Open University obtained the level of confidence in the review of the QAAET. The question now is: How can AOU maintain this high level of performance appraisal and how to ensure that its faculties receive outstanding scores?

1-3 Problem Statement

While several TQM execution models and structures have been planned and proposed, the literature is void of any study that is relevant to the Bahraini context in what relates to efficiently assessing the possible obstacles that a university could face when making the decision to implement TQM. Once the obstacles in applying TQM in the institution are clearly defined, a plan could be drafted, strategies can be developed, and resources could be allocated to prevent the occurrence of problems and defects.

This study tries to present the model that can play the role of the preventive step that any organization needs to adopt. This preventive step is based on the 1-10-100 rule which consists in what follows:

- Defects caught at their source cost the organization $1.
- Defects caught outside their source department, but within the organization cost the latter $10.
- Defects that reach the external customer cost the organization $100.

This study aims to determine the readiness of the Arab Open University, Bahrain branch to implement TQM. In other words, the study aims at helping the university discover its weaknesses with regards to the implementation of TQM. Once these weaknesses are identified and defined properly, strategies could be put in place to prevent the occurrence of problems and defects.

Attaining a zero-defect level is a principle of TQM that helps the organization to achieve a high quality performance both in the short and long terms. Thus, it could get a competitive advantage, expand its share of the market, retain its clients, and eventually boost its viability.

1-4 Research Objectives

1. To uncover the relationship between strategic dimensions and the implementation of TQM in higher education.
2. To determine the relationship between structural dimensions and the implementation of TQM in higher education.
3. To investigate the relationship between human resources dimensions and the implementation of TQM in higher education.
4. To appraise the relationship between contextual dimensions and the implementation of TQM in higher education.
5. To assess the relationship between procedural dimensions and the implementation of TQM in higher education.
6. To determine the readiness of Arab Open University to implement total quality management within its Bahrain branch.

1-5 Significance of the Study

This study constitutes a pioneering piece of research as it is the first study to be carried out in Bahrain for this purpose. It is likewise the first study to be carried out on Arab Open University in what relates to the issue of TQM. In this way, the study will shed light on many aspects of TQM implementation and may serve as a document to be adopted and followed by decision makers at Arab Open University, Bahrain branch in order to set plans for an eventual implementation of TQM in the university. Moreover, the study can be adopted by other branches of the university in the other seven countries where it is located to consider the implementation of TQM. Still, the study can be followed by universities in other countries, whether they are public or private, to assess their readiness for taking a TQM approach.

1-6 Limitation of the Study

Because of time constraints, and since the study was carried out on just one private university, the Arab Open University-Bahrain branch, the researcher cannot generalize the results of the study to all universities in Bahrain. In other words, the researcher cannot use the results obtained to make a general judgment about the

implementation of TQM in higher education institutions, whether in the public or private sector.

1-7 Overview of Arab Open University

The decision to found the Arab Open University (AOU) with Headquarters (HQ) in Kuwait was made in December 2000. Since then, this educational institution has expanded and eight branches of the AOU have been established in different Arab countries: Kuwait, Bahrain, Egypt, Jordan, Lebanon, Saudi Arabia, Oman, and recently Sudan.

The AOU's first academic year was launched in October, 2002. The Bahrain branch was inaugurated on June 26, 2002, while the recruitment of tutors started in January 2003. At first, the university operated from the United Nations' offices in Manama.

1-7-1 AOU's Vision, Mission and Goals:

1-6-1-1 Vision

The AOU seeks to be the first university committed to build the society of science and knowledge.

1-7-1-2 Mission

- To improve and spread knowledge, and establish expertise in terms of international quality standards overcoming time and geographical boundaries.
- To prepare manpower for development needs and build a society of knowledge and science in the Arab countries.

1-7-1-3 Goals

The objectives set by the AOU are closely based on its vision and strongly relate to its mission. These objectives can be summed up in what follows:

- Providing high quality of higher education to all students.
- Providing open education and distance learning by developing a center of excellence.
- Meeting the needs of individuals and local communities by providing a forum of continuing education.
- Providing professional training in order to cope with the market demands.

- Providing special opportunities to disadvantaged groups and potential students.
- Being a contributing partner in encouraging research and scholarly activities in areas of special concerns.
- Developing Islamic values and ethics.

1-7-2 Faculties and Programs

The AOU is composed of the four following faculties: the Faculty of Business Studies, the Faculty of Computer Studies, the Faculty of Education and the General Studies and Faculty of Language Studies.

Currently, the AOU is running just two studies programs; the first is the Bachelor of Science in Information Technology and Computing (ITC) and the second is the Bachelor of Arts in Business Systems (BABS).

Upon instructions from the Ministry of Education, the AOU suspended the Faculty of Education, while the Faculty of Language Studies was closed due to low market demand.

1-7-3 How is Quality Monitored and Reviewed at the AOU-Bahrain Branch?

The AOU-Bahrain is subject to both external and internal review. The external review is conducted by The Directorate of Higher Education Reviews (DHR) of Bahrain's National Authority for Qualification and Quality Assurance of Education and Training (NAQQAET- www.qqa.edu.bh), as well as the Centre for Inclusion and Collaborative Partnerships (CICP- http://www.open.ac.uk/about/inclusion-and-curriculum/) of the Open University- UK. It is an external institutional and program review that is conducted once every five years targets the quality and accreditation of AOU- Bahrain's awards.

AOU-Bahrain received the award of "full confidence" in all its programs after undergoing a DHR review, as well as triangulation by intense interviews with staff, students, alumni and employers. Similarly, AOU-Bahrain undergoes annual monitoring through its Annual Monitoring Report (AMR), which is presented to AOU Headquarters, where it is also submitted to the CICP for more scrutiny. In addition to that, AOU undergoes quarterly internal reviews that are conducted by the Performance Monitoring Unit of the Office of Prince Talal in Saudi Arabia.

Furthermore, and in order to ensure the effective and efficient functioning of all processes, AOU has shown incessant commitment to self-initiated constant

improvement through follow-up, with the aim of offering its student the most rewarding study experiences and highest levels of education quality.

1-8 Organization of the study

This study consists of five chapters, as shown in figures (1-1 / 1-2) below. Chapter one serves as an introduction to the study, and in this way it presents the background of the study, and is followed by statement of the problem, outline of the objectives of the study, explanation of the significance of the study, identification of the limitations of the study, presentation of an overview of Arab Open University, and ends with a description of the organization of the study. Chapter two outlines the literature review and expands the main concepts and definitions of total quality management (TQM). It also explains the dimensions of Total Quality Management, and ends with the presentation of a conceptual framework, and a summary of the literature review. Chapter three focuses on the research methodology used in the study. In this way, it includes the research design, describes the target population, and indicates the sample size, describes the sampling procedure; enumerate the data collection instruments, hints at pilot testing, refers to ethical considerations, and ends with a summary. Chapter four presents the results and findings of the study. It also covers the aspects of validity and reliability of the instruments, describes the demographic profiles of the respondents, outlines the TQM dimensions and summarizes the results and findings. Finally, chapter five serves as a discussion of the covers the discussion of the results and findings of study, and ends with a conclusion that comprises recommendations, and suggestions for future studies.

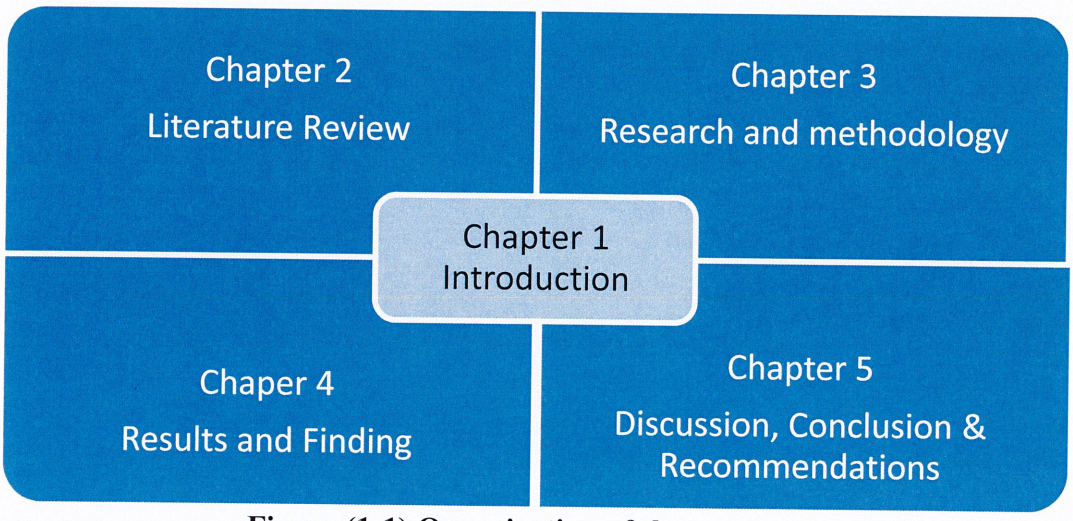


Figure (1-1) Organization of the study

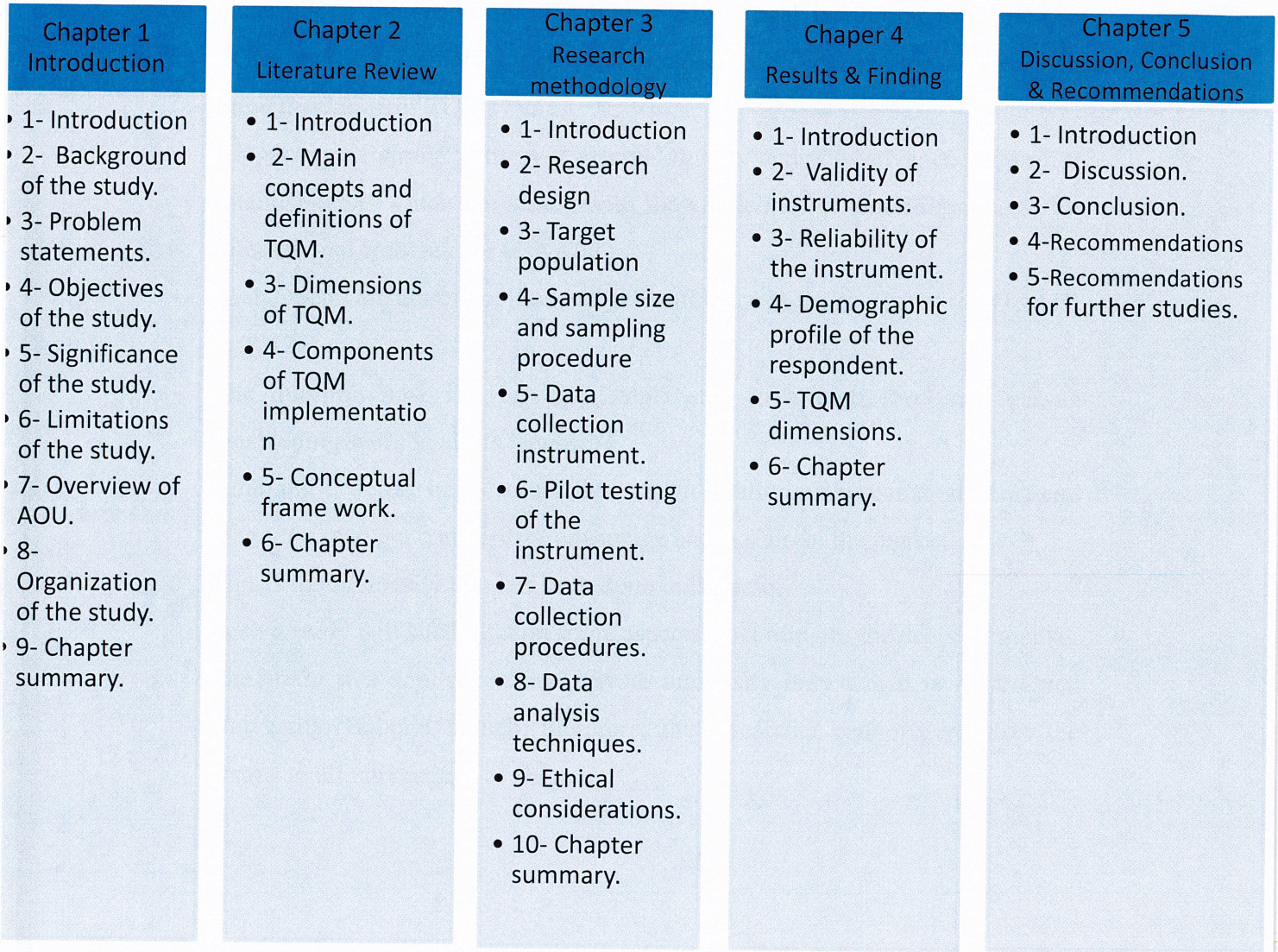


Figure (1-2) Organization of the study (cont)

Chapter Two

Literature Review

2-1 Introduction

The literature review examines the various studies that have been written about the subject and the results that authors and researchers have found out about the themes outlined in the study objectives. In the first part of this chapter, the concepts and definitions of TQM will be presented, while in the second part, the dimensions of TQM that impact its implementation in a higher education institution will be discussed.

2-2 Main concepts and definitions of TQM

2-2-1 General definition of TQM:

The concept of TQM was initially introduced and developed by Dr. W. Edwards Deming in the late 1950's. However, Deming's thoughts and ideas did not meet much acclaim and recognition by US industry; yet they were fervently embraced by Japanese entrepreneurs during Japan's recuperation from the aftermaths of the Second World War. Thanks to the application of TQM and the implementation of TQM principles and strategies, the phrase "Made in Japan" changed from a mere label on products, to a reason of pride and a source of praise (M. Walton, 1986).

TQM is an administration logic that actively engages each individual in the organization in the various processes and plans decided by the management for the improvement and promotion of the performance and outcomes. TQM calls on every individual to take interest in what is going in their organization, present ideas and proposals and contribute efforts to its development. It is expected that TQM contributes actively to bringing constant change in the quality and outcomes of economic processes, and can even trigger promote a community's attitude and behavior towards, work and achievement (Talib, 2012). The fundamental rule of TQM is embedded in the conviction that the expense of anticipation is not exactly the expense of revision.

TQM has attracted the interest of many countries around the world as a fundamental pillar of a new administration model that is likely to allow a country to cope with the constant and ceaseless changes brought about by the global developments in all fields. It is also viewed by organization as a system of conducting and organizing their activities to keep abreast with competitors, by being persistently alert to local and international changes, and ready to respond and adapt to the changes and requirements of an outstanding quality (AlAddadi, 2013).

2-2-2 Definition of TQM in terms of education

Before starting the discussion of total quality in education "TQE", it would not be necessary to start with the presentation of a few definitions that will clarify the concepts and facilitate the identification of relations between them. Moreover, without clear definitions, it will be not be easy to identify the issues and obstacles that hinder the realization of TQM. Here we will embrace the meaning of aggregate quality administration (TQM) according to Dahlgaard et al. (1994), "TQM is an administration process which any association can actualize through long term planning, by utilizing persistent quality improvement plans which step by step lead the association towards the achievement of its vision".

In order to better grasp the meaning of the concept of TQM, we will characterize TQM by utilizing the following hierarchy of quality definitions as follows: first, *Quality* is to constantly satisfy customers' prospects; second, *Total Quality* is to accomplish quality at low cost, and third, *Total Quality Management* is to attain total quality through the efforts of everybody in the organization. Based on these characterizations, a higher education society implementing "TQE" can be defined as an educational society portrayed by expanded consumer loyalty through consistent enhancements, in which all the staff their effectively involved in and actively partake in the various processes and activities of their organization.

2-3 Dimensions of TQM

Whalen (1994) distinguished the impediments that can obstruct the implementation and the improvement of a program of TQM in nine distinct variables: lack of common sense, absence of administration, the quality of the work, absence of suitable preparation, jaggedness group, utilization of an invalid project (outside of timeframe

of realistic usability/moral), the failure to change the hierarchical theory (society), inadequacy of assets, and the absence of change of the nature of the estimation. Sebastianelli and Tamimi (2003) distinguished different barriers. According to them the implementation of TQM can be thwarted by factors such as the lack of commonsense planning, lack of good leaders, inadequate advancement of Human Resources, absence of value arranging, absence of authority in the improvement of a quality society, deficient assets for TQM, and absence of client introduction. Johnson (2013) contends that the primary obstructions to TQM consist in the absence of benchmarking and employees resistance to change. Mosadeghrad (2014: 162) categorizes these hurdles into five clusters of dimensions: strategic dimensions, structural dimensions, human resources dimensions, contextual dimensions, and procedural dimensions.

Each group of these different dimensions relate to one or more of the following areas: top management and leadership commitment, strategic planning, organizational structure, physical resources, employee training, employee involvement, organizational culture, change and innovation, evaluation and continuous improvement.

2-3-1 Top Management / Leadership Commitment and implementation of TQM

Top Management plays a decisive role in formulating or taking any key business decision. Consequently, the success of any decision made in an organization depends decidedly on top management support and commitment (Zakuan, 2012). The issue of Quality has increasingly become of great importance to every organization and no management can take matters for granted or let nature take its course when it comes to quality. The top management must play a leading role by drafting a quality plan that indicates the roles and responsibilities of all stakeholders, making available the required resources, establishing an organization wide quality policy that is well communicated to all stakeholders, instituting a quality management structure and managing the entire process through close monitoring and evaluation. This must be supported by a positive organization culture and a climate of open cooperation and team work among stakeholders in quality management (Sharp, 2000).

As cited by Zakuan (2012), Deming (1986) maintains, when discussing the adoption of a quality approach in an organization, that managers must institute leadership to

usher the quality transformation process. The same idea was advocated by Parameshwar and Srikantia (2000), who emphasize the essential role of top management and discussed two types of leadership: transformational leadership and transactional leadership. While transformational leadership is a leadership that is based on an ideologically anchored vision, transactional a leadership that relies on reward control mechanisms and emphasizes the clarification of followers' roles and goals and the way the desired outcomes will follow after achievement of the targeted goals. Champions of innovation tend to exhibit transformational leadership behavior; they try to initiate influence through calculated tactics in their work environment.

In the higher education context, everybody at the college has an administration part or something to that affect. Every individual in a supervisory part or role ought to attempt to be a mentor and instructor, and not a judge and supervisor (Green & Winn). Citing Senge, R. C. Winn and R. S. Green, state that the pioneers of change ought to be architects; makers of a situations that are very likely to lead to the realization of the designated goals. Still, practical pioneers will not just devise new environments; they would rather consider the existing environment and look for any obstructions that may constitute a threat to the new culture and novel policy, and find the ways to efficiently uproot them.

2-3-2 Strategic planning and implementation of TQM

Juran & Gryna (1993), offer a succinct but comprehensive definition of strategic quality planning, stating that it is : "organized procedure for setting up long-go quality objectives, at the most elevated amounts of the association, and characterizing the intends to be utilized to achieve those goals". Krumwiede and Charles (2006) highlight the idea that "the key parts of value are perceived and grasped by top administration in the key arranging process."

Strategic Planning allows firms to set clear needs and apportion assets for the most critical things. The center of a TQM approach incorporates a leader's vision of an organization's sought future state, goals and roles. It makes an interpretation of the vision to turn it into a technique, a set of clear objectives and a set of steps to be followed and procedures for advancement. Simply set, it is a method that takes you matters from theory into reality (Sila & Ebrahimpour, 2005). Discussing the Malcolm Baldrige Model, Wilson & Collier (2000), state that the model a positive connection

between preparation and readiness for quality and quality data and examination. Overall, the most widely defended and adopted approach for a higher education organization to meet the needs of its customers is to provide them value which requires giving a great importance to quality and putting it at the first level of priorities for everyone in the university.

2-3-3 Organizational structure and implementation of TQM

TQM stresses the necessity of allowing employees to make choices and making optimal use their own ideas, skills and expertise. It calls on workers to recognize and analyze quality issues and take restorative measures and engage into remedial tasks without experiencing the administration pecking order (Burdett, 1944; Crosby, 1979; Deming, 1986; Juran, 1989; Pulat, 1994). Active participation is empowered by perceiving worker achievements, recognizing their contributions, giving ceaseless support and encouragement, and allowing reward so as to boost motivation. These elements of TQM suggest that it is more averse to be powerful in organizations that follow robotic structures that concentrate choice making power in the hands of the few members of management and employ immediate firm control systems. In natural structures, then again, workers are given the scope to settle on fitting choices inside a framework of parameters. A few studies, such as those conducted by Harris and Purdy (1998) and Johannesson & Ritchie (1997) conclude that a participative structure can enhance TQM results. Henceforth, organizations with adaptability arranged natural structures seem to demonstrate a superior fit with TQM practices; for example, worker contribution, strengthening, and obligation regarding quality at the source.

TQM likewise critically necessitates a move far from vertical lines of correspondence and a move toward a horizontal correspondence that caters for a crosswise communication and interaction over divisions. It is the two-way communication between the various hierarchical levels that is likely to result in better capacities, more product offerings, and improvements in all areas. These open and casual lines of correspondence can help tackle issues and empower more fast execution of progress. Level coordination is energized in light of horizontal stream of work procedures over utilitarian ranges through systems, which can be achieved through strategies, such as the cross-practical groups (Burdet, 1994; Deming, 1986; Pulat, 1994). These qualities of TQM would not be likely to be discovered in unthinking structures that underscore

progressive chains level correspondence systems and flat occupation reliance. A few studies recommend that group based structure, which makes part of natural structure, enhances TQM viability (Grom & France, 1996; Whalen & Rahim, 1994). Subsequently, organizations with better adaptability arranged natural structures, and with existing flat coordination and correspondence systems are more likely to be compelling at actualizing TQM.

2-3-4 Physical resources and implementation of TQM

There is an essential gullibility in much TQM literature, whether educational or commercial, about monetary and budgetary issues. The fundamental message seems to be that providing one gets the TQM right approach then educational success will take after. Unfortunately, that is not generally very often the case and the picture is not always uniform. The truth is that, as has been proven by research, educational achievement is frequently asset driven. In other word, what students and educational institutions might achieve, depend greatly on the financial and human resources they possess, and to the planning they make in order to benefit from these resources. There are special cases in the literature that point to the serious risks that may result from the disregard of the part of planning. Tom Peters in his book Liberation Management quoted by Sally's (2002) does altogether incorporate taking care of spending plans in his agenda for self-managed groups and contends that in a world turned upside-down, budgetary administration and control must be decentralized and that the power for spending must be appointed down the line. He views that it is essential to perceive asset administration to be about force in the association. In the process of allowing the staff in the organization more freedom and more participatory roles, the staff are offered with expert obligation, and consequently, the spending plans and the administrative control over them have to be decentralized. In this way, the internal financial administration of organizations turns into a major component in any TQM program and an imperative plus to any work completed on founding self-roused groups.

2-3-5 Employee Training and implementation of TQM

As advanced by Zakuan (2012), training constitutes an important factor in boosting employees' efforts towards improvement. Quality training, according to him, comprises educating and training workers of all ranks in the organization with the intention to broaden their knowledge on quality issues and programs and to provide them with ample information about the organization's quality mission, vision and the desired direction to be taken. The same idea is supported by Jamali (2010), who considers employee training a prominent key among the most critical prerequisites for an effective TQM implementation. Management personnel, supervisors and other employees require having skills and knowledge on quality dimensions and management as well as their roles in TQM implementation.

Cited by Mathews et al. (2001), Boidoun points out that employee training that is focused on quality management determines how effective an organization's quality management initiatives will be. Within the same area, Zhang (2000) views investment in employee training and development as a critical component to successful TQM implementation.

2-3-6 Employee involvement and implementation of TQM

One guiding principle in the implementation of TQM is that the process must be organization wide. In other words it must be across the organization and every individual within the organization whatever his function and rank might be must be involved in the process with the management taking a leading role (Schuurman, 1997).

An imperative component to accomplish objectives in organization is workforce administration. Workforce administration serves to accentuate workers' perception of quality, energize group working, give preparation and include workers in quality choices (Saraph, 1996; Black & Porter, 1996; Wilson & Collier, 2000; Sila & Ebrahimpour, 2005). The human asset would be more effective with appropriate targeted training. Furthermore; worker connection has been absolutely identified with quality change. In order for a TQM project to be effectively actualized, it has to rely upon the coordinated efforts and coordination among an organization's workforce (Ho, 1999). The representatives can make opportune and more responsive choices to clients can have positive effects towards client relations through expanded access to

data and assets (Ahire, 1996). Engaging and including all representatives in suggesting, engineering and implementing persistent change is vital for the formulation, dissemination, adoption and prevalence of a culture highlighting quality and valuing excellence (Flynn et al., 1995; Deming, 1986; Kaynak, 2003; Ho et al., 1999; Ishikawa, 1985; Ahire et al., 1996).

The organization must ensure that an organization wide preparation system is in place and is accessible to all so as to give workers the best possible aptitudes (Kaynak, 2003; Anderson et al., 1995; Flynn et al., 1995; Rao, Solis, & Raghu- Nathan, 1999).

2-3-7 Organizational culture and implementation of TQM practices

Nezhad (2012) and Erkutlu (2011) define culture as an arrangement of standards, qualities, convictions, regular understanding or speculation or standards for conduct that are shared by individuals from a general public. Organizational culture is defined by Wali and Boujelbene, (2011) as the arrangement of hierarchical practices that are seen as trademark for an association. Hence, organizational culture gives the values that guide daily operations of an organization. Nezhad et al., (2012) discuss four dimensions of organizational culture. The first is group culture that emphasizes flexibility and cohesion among employees of an organization and advocates that top management should promote employees participation and empower them. The second is developmental culture that advocates flexibility and change based on the external environment. Third, is rational culture which is oriented towards the external environment, but focuses on control and stability. And finally, there is the hierarchical culture that accentuates internal focus and control through internal efficiency and adherence to law.

Wali and Boujelbene (2011), on the other hand, discuss organizational culture under orientations. They distinguish four distinct types of organizational cultures according to their orientations. These include standards and solidness oriented, results/result oriented, individual's oriented and communication oriented. An organization has to lay the foundations for a quality culture that must be integrated with other dimensions of culture if it aims at achieving the highest levels of success in TQM management. Organizational quality culture influences TQM implementation process as it communicates quality practices and norms that employees are expected to engage in. According to Jamali (2010), organization quality culture bolsters the employees'

conviction of the importance of quality and strengthens their beliefs in the implementation of TQM. What an organization needs is a well-communicated organization culture which here employees understand and are encouraged to get involved in it and to participate in quality management programs and processes.

2-3-8 Change and innovation and implementation of TQM

Arshida and Agil (2012) consider top management commitment as an essential element for ensuring successful TQM implementation. The top management must be on the forefront of the quality management process starting from the initial stages and serving as role models for the other staff. According to Omware (2012), the adoption of TQM for the first time is strongly associated with the development of a new organizational policy, new procedures and new tools that must be learned. TQM is an organizational change process that is often associated with instability, confusion, and employees' resistance and must be carefully initiated through consistent management involvement.

2-3-9 Evaluation and implementation of TQM

The great formula in the connection to nonstop changes is learning. For that reason, and in order to convey the importance of this stage, Deming changed the name of the change cycle (the Deming cycle) from plan–do-check-act to: plan–do-study/learn-act. In the check period of the change cycle, you need to study the outcomes so as to comprehend what the reasons behind them were. This learning procedure is the most vital piece of the nonstop change process. Therefore, this renders talking about the learning procedure highly indispensable.

The traditional and widely-held view of learning is that is a view that emphatically links learning to the showing procedure when data is given by an educator. The utilization of the acclimatized data is then connected to fitting errands. This is not currently thought to be the situation any longer. Most "genuine" learning is accomplished by means of experience, not by means of exposing data, but by seeing things happen firsthand. In the work environment, this takes place during the implementation of the work activities and tasks. It is learning by doing and is called work experience.

There is a typical learning cycle (see Fig. 1) which we will allude to in our exchange of regular learning. The crucial element in the basic learning cycle is that a criticism move is made, an impact is noted and a suitable alteration of conduct takes place after. In order for an effective and powerful learning to be accomplished, all phases of this cycle must be experienced. In any organization, there is an understandable relative need to guarantee real learning. If learning is not taken seriously, there will be unfavorable repercussions for the organizations concerned.

An effective learning strategy is likely to encompass the six following interdependent processes. First, there must understanding why people learn and what way they do that. Second, there should be an encouragement of a strong learning environment by fostering a culture that values knowledge and learning. Thirdly, there has to be recognition of individual knowledge needs and that these needs and are ever-changing. Fourth, there should follow a formulation of an education plan with approved objects. Fifth, there need to be a promotion of the learning prospects and finally comes the evaluation of the learning results which serve to measure how effective the whole learning cycle has been.

These steps describe the normal process that grown-ups generally learn in through the learning cycle. It is understood that in order for individuals to learn successfully, and apart from their readiness and motivation for learning, every phase of the cycle should constitute a full voyage that, though separate from the other voyages, still constitute a complementary stage to the cycle. What should be catered for is a clearly-established learning cycle with a well-established system inside the association.

2-3-10 Continuous improvement (CI) and implementation of TQM

Owing to the fact that market quality needs are very dynamic, the organization must acknowledge the importance of continuous employee development and training on quality management. Once the dedication is made to execute TQM, one of the first steps is to recognize the `customers' or partners. To do this, the organization must regard the instructive process as a framework in which all the components and the connections between those components must catered for. The Process change ought to start and end with the client (Walton, 1986).

The process must focus on finding out, meeting and exceeding customer's needs and expectations through total involvement of everyone in the organization and through

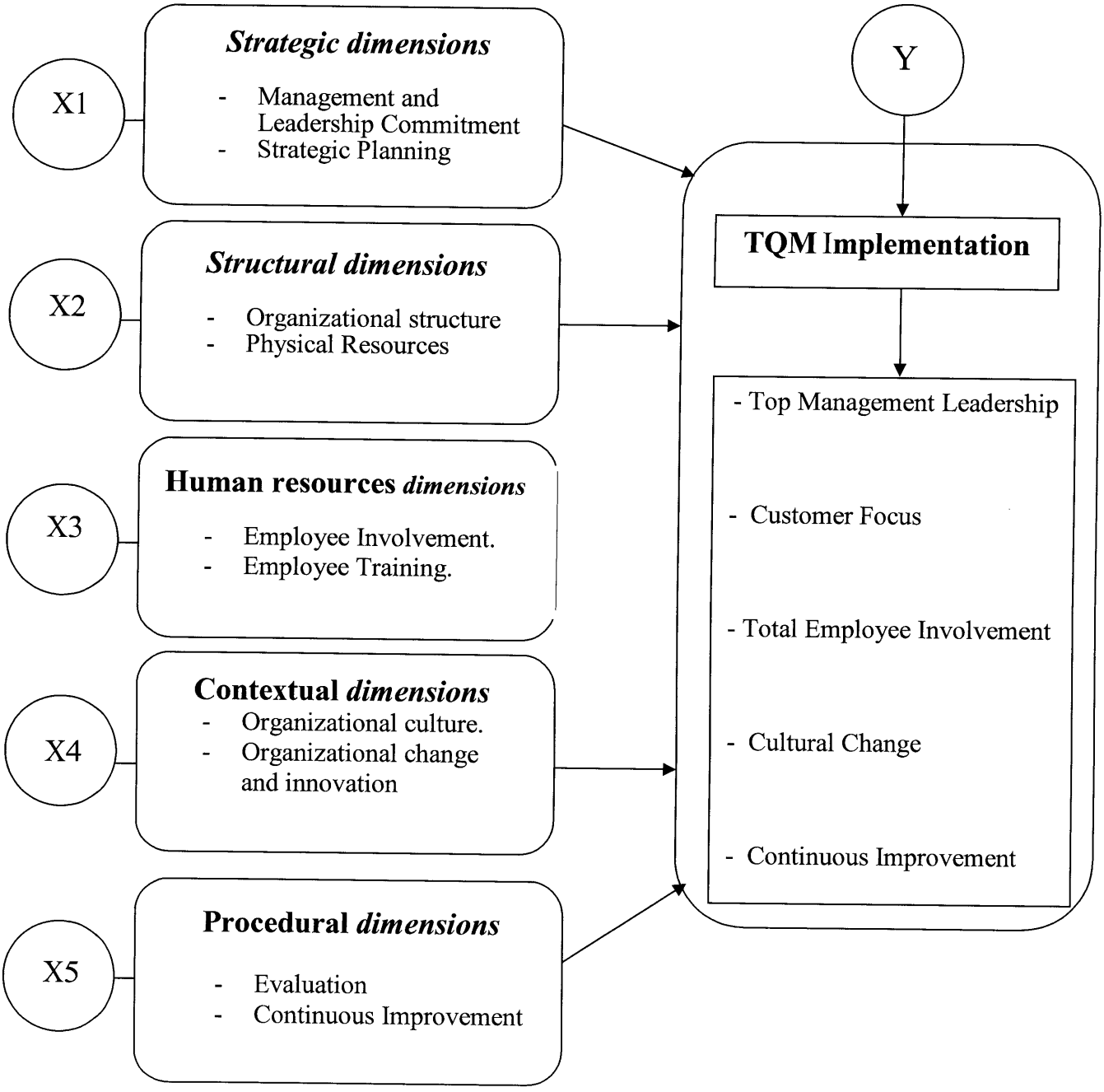
continuous improvement. This process requires exceptional skills and teamwork that call for continuous employees' training and development (Oluwatoyin, 2008). Malcolm Baldrige National Quality Award (MBNQA) as cited by Wali and Boujelbene (2011) developed six criteria practices that can be used to measure TQM. These are leader's dedication, technique and arranging, focused customer, data and investigation, individual's administration, and management procedure.

2-4 Conceptual frame work

The researcher adapted the model shown in figure (2-1) from Oruma (2014) and modified it to be suitable with the literature review and the objectives of the study.
Total quality management is the dependent variable, and the followings are the independent variables:

- Strategic dimensions contain management, leadership commitment and planning.
- Structural dimensions contain organizational structure and physical resources.
- Human resources dimensions contain employee involvement and employee training.
- Contextual dimensions contain Organizational culture, organizational change and innovation.
- Procedural dimensions contain process management, evaluation and continuous improvement.

Figure (2-1) Conceptual frame work



Source: Adapted from Oruma (2014)

2-5 Chapter Summary:

- TQM is a management philosophy that empowers every member of the organization to actively take part in the different stages change process decided by the organization
- *Quality* aims to satisfy constantly customers' prospects and to meet their expectations.
- *Total quality* refers to accomplishing quality at low cost.
- *Total quality management* is to attain total quality through everybody's participation.
- TQE is an educational society portrayed by expanded consumer loyalty through consistent enhancements, in which all workers effectively partake.
- The obstacles for the implementation of TQM can be classified into five categories: strategic obstacles, structural obstacles, human resources obstacles, contextual obstacles, and procedural obstacles.
- It is essential to establish an organization with a wide quality policy that is well communicated to all stakeholders.
- Champions of innovation tend to exhibit a transformational leadership behavior
- The key parts of value are perceived and grasped by the top administration in the key arranging process. The participative structure can enhance TQM results
- Investment in employee training and development is a critical component for successful TQM implementation.
- Engaging and including all representatives in making persistent change is vital.
- Organization quality culture affects the employee's beliefs in the implementation of TQM
- TQM is an organizational change process that is often associated with instability, confusion, and employees' resistance and, therefore, must be carefully initiated through consistent management involvement.

- Evaluation is one of the important steps in the learning cycle. It is needed to study the outcomes so as to comprehend the reasons behind what is happening.
- Deming cycle: do-plan-study/learn-act is a perceived as a good model for an effective learning cycle.
- The key factor to continuous improvement is learning.
- Meeting and even exceeding the customers' expectations require incessant work that involves continuous improvement.

Chapter Three

Research methodology

3-1 Introduction to chapter 3

The methodology used in this study comprises the research design, target population, sample size and sampling procedure, data collection instrument, pilot testing of the instrument, data collection procedure, data analysis techniques as well as ethical considerations.

3-2 Research design

According to Yin (1989), "research design compacts with a logical problem and not a logistical problem". Before a developer or engineer can build up a work or develop an invention, they have to clearly identify its uses and the needs it can cater for. The work arrangement streams from this. Thus, in social research, the issues of examining, the system for information accumulation (such as survey, perception, and report examination); and design of inquiries are all subsidiary to the matter of "what proof do I have to gather?"

Research design is not identified with any specific strategy for gathering information or any specific sort of information. Any examination configuration can, on a fundamental level, utilize any information type of data collection method and can use either quantitative or qualitative data, and not just be limit to one method or the other.

This study adopted the descriptive research design. The researcher used the quantitative method that attempts to describe explain and predict the relationship between variables. In this study the quantitative research answer questions related to relationship between strategic, structural, HR, contextual, procedural dimensions and the implementation of TQM in higher education.

The researcher used self-administered survey, and online survey. A survey design is associated with a guided and quick collection, analysis and interpretation of observation (Mugenda and Mugenda, 1999).

3-3 Target population

The population's size of AOU is small (75 employees), therefore, the target population of this study is comprised of the whole population of the university.
The respondents were all employees from highest level to the lowest level.
The number of respondents was 60, thus, the response rate was 80%.

3-4 Sample size and sampling procedure

The small size of the population suggests a census. A census is account of all the elements in a population, therefore, the researcher decided to obtain information from every one of those elements, in other words. Since the researcher did not determine any sample, there was no sampling procedure.

3-5 Data collection instrument

Primary data was collected regarding dimensions of TQM affecting implementation of TQM. For this study, the survey was administered to different levels of staff within the university.
The decision to use the questionnaire as a data collection instrument is explained by two facts. The first is that the simplicity of use, while the second is the low cost of use associated with this instrument compared with others.

3-6 Pilots testing of the instrument

Before the live administering of the questionnaire, the researcher carried out a preliminary test on the data collection instruments and procedures in order to identify any problems that may emerge later with the data collection process. In other words, the researcher did a preliminary test on the data collection tools and procedures to identify likely problems. The researcher took necessary actions, and did the changes needed in time before the data collection. The test was conducted at Arab Open University whereby fourteen questionnaires were administered to the employees in different departments within the university. In order to achieve comprehensiveness and consistency, the researcher checked the filled questionnaires.

3-7 Data collection procedures

Primary data were collected using structured questionnaires. The questionnaire is self-administered by the researcher to the respondents; the researcher relied also the online survey that was sent via e-mail to all employees of Arab Open University. The researcher used WhatsApp also as a way to send the online survey to top management, and to follow up with the return of the questionnaires. The respondents, who received their surveys online, returned them by e-mail.

3-8 Data Analysis Technique

The data collected was coded, and investigated through SPSS (Statistical package for social sciences), version 22. Descriptive statistics such as % "percentage", means and standard deviation were used to describe and analyze the data.

3-9 Ethical considerations

While preparing for the administering of the questionnaires, serious consideration was given to the moral issue at stake. Before administering the questionnaires, the researcher ensured to obtain prior authorization from the management of the Arab Open University.

A letter of recommendation from the dean of the Business administration at the University of Bahrain, and a permit from the branch director of Arab Open University, Bahrain branch were also applied for and obtained in time.

All information obtained in this research was strictly utilized for scholarly purposes and dealt with highest levels of confidentiality respondents were guaranteed of the privacy of information given according to the legal and ethical requirements.

3-10 Chapter Summary:

- This study adopted the descriptive research design. The researcher used the quantitative method that attempts to describe explain and predict the relationship between variables.
- The target population of this study was comprised of the whole population of Arab Open University; the respondents were all employees from highest level to the lowest level.
- A self administered questionnaire was used to collect data.
- A preliminary test was conducted by the researcher, in order to achieve comprehensiveness and consistency, 14 questionnaires were administered to the employees in different departments.
- In order to test content validity (extent to which the sample is representative of the population), experts opinion were sought, and a pilot test was administered.
- In order to test the reliability (the extent to which a measurement procedure will produce the same result if the process is repeated over and over again under the same conditions), the Cronbach's alpha coefficient was computed using SPSS.
- The value of Cronbach's alpha was **0.957** was which means there was reliability.
- Primary data were collected using structured questionnaires, and online survey, and the data collected has been coded, and investigated through SPSS
- According to ethical issues, the researcher sought authorization from the management of the Arab Open University before the survey administering process.

Chapter Four

Results and findings

4-1 Introduction to chapter 4

In this section of the study, the researcher analyzed the data obtained from the questionnaires in order to test the relationship between the implementation of TQM and the five independent variables which are: Strategic dimensions, Structural dimensions, Human Resources dimensions, Contextual dimensions, and Procedural dimensions.

4-2 Validity of the instrument

Golafshani (2003) defined validity as follows: "Validity determines whether the research items truly measure what they are intended to measure or how factual the research results are."

In order to test content validity, the extent to which the sample is representative of the population, experts' opinions were sought. The data collected from the pilot study were subjected to factor analysis to test construct validity. The research items or questions in the questionnaire were developed, reviewed, and adjusted to represent dimensions of each variable in the research.

4-3 Reliability of the instrument

Golafshani (2003) defined reliability as follows: "reliability is the extent to which results of a study are consistent over time and there is an exact representation of the aggregate population under study."

Another definition was given by Toke (2012): "Reliability analysis aims at finding out the extent to which a measurement procedure will produce the same result if the process is repeated over and over again under the same conditions."

Reliability analysis was used to measure both substance and internal stability of data. The Cronbach's Alpha is a measure that ensures the inter-item consistency and reliability coefficient that shows how well items in a set are positively correlated to one another.

The co-efficient of Cronbach's Alpha that are less than 0.6 are generally considered to be poor, those in the 0.7 range is considered to be acceptable, and the values over 0.8 is said to be good; the closer the reliability coefficient gets to 1.0 is better.

Cronbach's Alpha for this research is 0.957 which is above 0.8 and hence the data collected for this research were considered to be very good, it is internally stable and consistent. Table (4-1)

Table (4-1)
Reliability Statistics

Cronbach's Alpha	N of Items
.957	30

Table (4-2) below summaries the reliability statistics of the following dimensions: Strategic, structural, human resources, contextual, and procedural dimensions and total quality management implementation.

Table (4-2) Reliability statistics of TQM Dimensions and TQM Implementation

variables	Number of items	Cronbach's Alpha	Mean	SD
Strategic statements	5	.883	4.203	0.839
Structural statements	5	.753	4.000	0.895
H R statements	5	.896	3.687	1.108
Contextual statements	5	.864	3.843	1.058
Procedural statements	5	.752	3.56	0.964
TQM	5	.887	4.063	0.868
Total	30	.957	3.893	0.955

4-4 Questionnaire responses:

The questionnaire was sent to all employees at Arab Open University by e-mail, with the help of Human resources department of Arab Open University, and the quality coordinator who sent an invitation letter to all employees to encourage them answering the questionnaire.

The participants received an online survey through the link below: http://goo.gl/forms/Pkbyaf4dFM

The total number of employees was **75**; the number of respondents was 60. Therefore, there was **80%** response rate for this study. It was a significant value. Table (4-3)

Table (4-3) Response rate

Population	75
Respondents	60
Response rate	80 %

A self administered questionnaire was distributed to respondents who did not answer the online survey. The recommendation letter and permission letter were presented to respondents (Appendix 2). The questionnaire statements are presented in (Appendix3)

4-5 Demographic profile of respondents

This section aims to describe the characteristics of the respondents. The pie charts below show that these characteristics have been grouped into seven main categories: gender, age, name of departments, educational level, current position, having prior knowledge in TQM, have been trained on TQM or not. This will be considered further in the discussion part to indicate how this is representative of the population.

4-5-1 Gender:

All the 60 subjects answered the question regarding gender. Tables: (4-4)

Table (4-4) Gender frequency

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	26	43.3	43.3	43.3
	1.0	34	56.7	56.7	100.0
	Total	**60**	100.0	100.0	

There were 26 males and 34 females, thus, the respondents consisted of 56.7% of females and 43.3% of males. See: Table (4-4) above and (Figure 4-1) below.

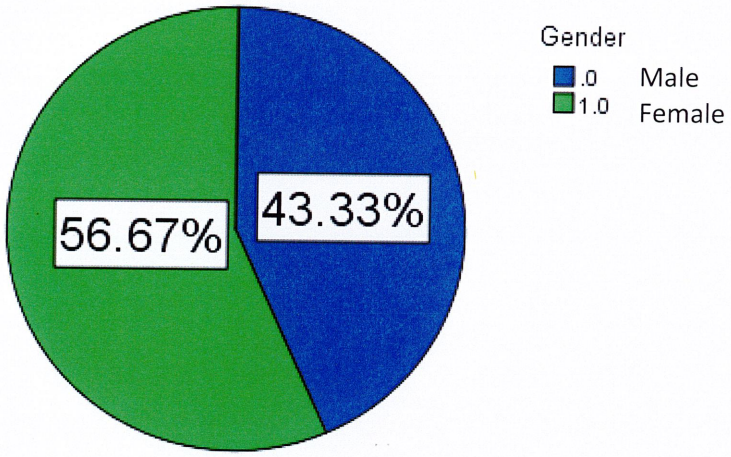


Figure (4-1): Gender distribution

Atiyyah (1993) classified the style of Arab managers in two types: traditional and modern. The traditional style is characterized by the refusal to employ females.

4-5-2 Age

All 60 respondents answered the objective regarding the age. Table (4-5)

Table (4-5) Age frequency

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 (22-30 years)	12	20.0	20.0	20.0
	2 (31-40 years)	26	43.3	43.3	63.3
	3 (41-49 years)	12	20.0	20.0	83.3
	4.0 (50 years & above)	10	16.7	16.7	100.0
	Total	60	100.0	100.0	

The age of most of respondents was ranging from 31 and 40 years. It was about (43.3%), whereas respondents with the age that ranges from (22 - 30 years) and (41-49 years) had the same percentage which was 20%. See: Table (4-5) above and (Figure4-2) below.

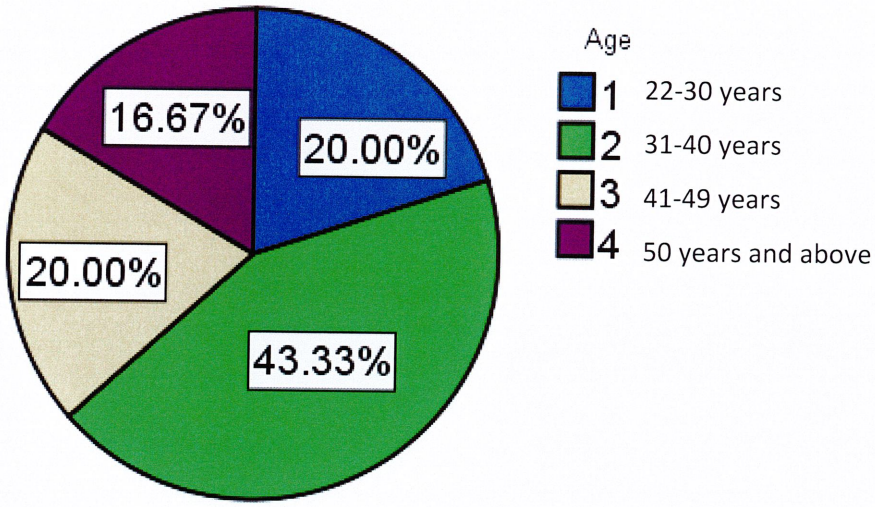


Figure (4-2): Age distribution

4-5-3 Name of departments

All the 60 subjects answered the objective regarding the name of departments. Table (4-6)

Table (4-6) Name of department frequency

Name of the department		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 (Academic Affairs)	6	10.0	10.0	10.0
	2 (administration Affairs)	20	33.3	33.3	43.3
	3 (IT & Computing)	4	6.7	6.7	50.0
	4 (Business Administration	9	15.0	15.0	65.0
	5 (General Studies)	3	5.0	5.0	70.0
	6 (Admission & Registration)	6	10.0	10.0	80.0
	7 (HR Affairs)	2	3.3	3.3	83.3
	8 (Financial Affairs)	1	1.7	1.7	85.0
	9 (Others)	5	8.3	8.3	93.3
	E-learning	1	1.7	1.7	95.0
	Examination department	1	1.7	1.7	96.7
	Learning resource center	1	1.7	1.7	98.3
	System development and support	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

20 respondents (33%) had been from the administration affairs department, 9 respondents (15%) from the business administration department, 6 respondents (10%) from the admission and registration department, 8.3% were from other

different departments, and 4 respondents (6,7%) from Information technology and computing department, 3 respondents (5%) from general studies department, 2 respondents (3.3%) from human resources affairs, and 1 respondent (1.7%) only from the following departments: E-learning, Examination department, learning resource center, system, system development and support. Table (4-6) and Figure (4- 3).

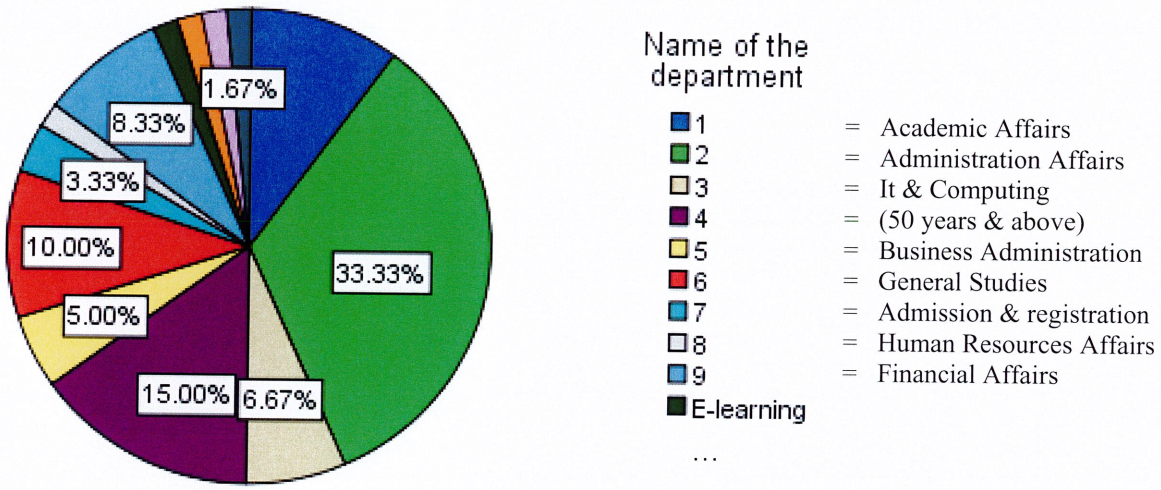


Figure (4-3): Departments distribution

4-5-4 Education Level:

All the 60 respondents answered the objective regarding the educational level. The average of the level of education of employees at AOU is between bachelor and master degrees. Table: (4-7).

Table (4-7): Educational level Frequency.

Educational level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 (Doctorate)	14	23.3	23.3	23.3
	2 (Masters)	19	31.7	31.7	55.0
	3 (Bachelor)	22	36.7	36.7	91.7
	4 (High school or equivalent)	3	5.0	5.0	96.7
	5.0 (Others)	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

22 respondents (36.7%) had bachelor degree, 19 respondents (31.7%) had masters' degree, 14 respondents (23.3%) had doctorate degree, and only 3 respondents (5%) had high school degree or equivalent. See: Table (4-7) above and Figure (4-4) below.

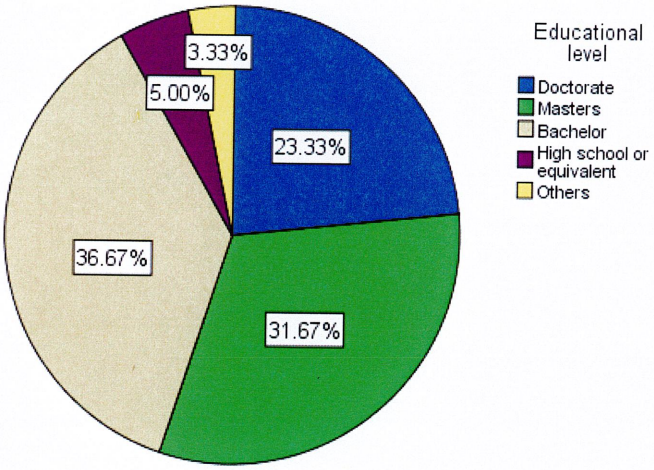


Figure (4-4): Educational level distribution

4-5-5 Current position

All the 60 respondents answered the objective regarding current position. Table (4-8).

Table (4-8) Current position Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	30.0	30.0	30.0
	2	39	65.0	65.0	95.0
	3	1	1.7	1.7	96.7
	5	1	1.7	1.7	98.3
	coffee make	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

65% of respondents were from administrative level and 30% were from academic level. The other positions were allocated to 5% of respondents. One of them was a coffee maker. See: Table (4-8) above and Figure (5-5) below.

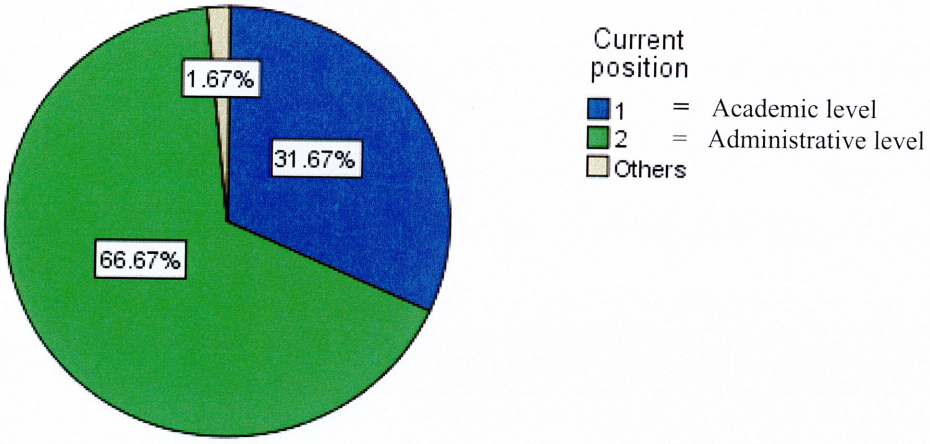


Figure5: Current position distribution

4-5-6 Having prior knowledge in TQM

All the 60 respondents answered the objective regarding having, or not, knowledge in TQM. Table (4-9)

Table (4-9) Frequency of "Having prior knowledge in TQM".

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = Yes	28	46.7	46.7	46.7
	2 = No	32	53.3	53.3	100.0
	Total	60	100.0	100.0	

Approximately half of the respondents 46.7% had a prior knowledge in TQM. Table (4-9) above and Figure (4-6) below

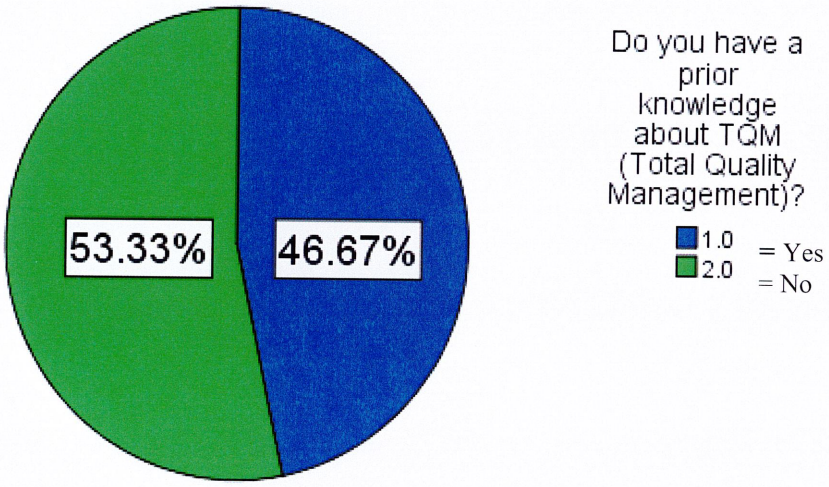


Figure (4-6): Distribution of employees in terms of prior knowledge on TQM

4-5-7 Have you been trained on TQM?

All the 60 respondents answered the objective regarding being trained on TQM. Table (4-10)

Table (4-10): Frequency of "Being trained on TQM"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	19	31.7	31.7	31.7
	2.0	41	68.3	68.3	100.0
	Total	60	100.0	100.0	

41 respondents (68.3%) have not been trained on TQM, whereas 19 respondents only did the training in TQM (31.67%). See Table (4-11) above and figure (4-7) below.

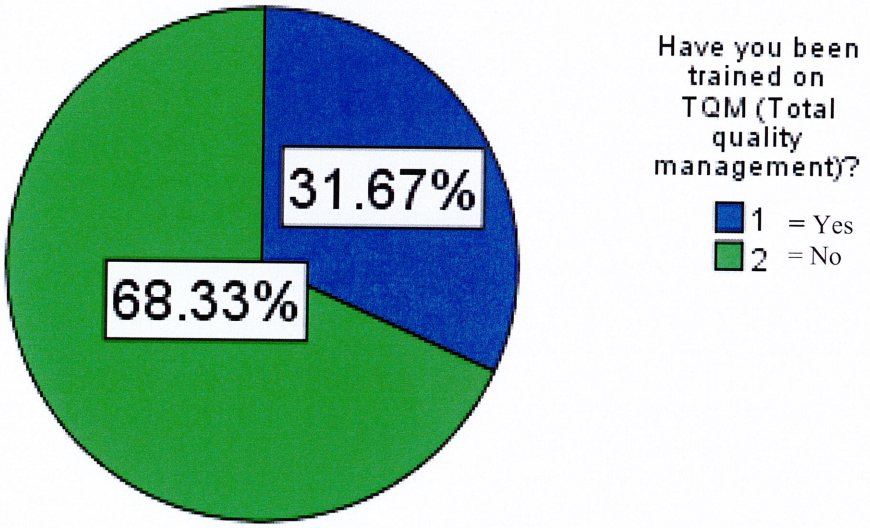


Figure (4-7): Distribution of employees in terms of TQM training

4-6 TQM Dimensions

4-6-1 Analyzing Likert Response Items

To properly analyze Likert data, one must understand the measurement scale represented by each. Numbers assigned to Likert-type items express a "greater than" relationship; however, how much greater is not implied. Because of these conditions, Likert-type items fall into the ordinal measurement scale. Descriptive statistics recommended for ordinal measurement scale items include a mode or median for central tendency and frequencies for variability. Additional analysis procedures appropriate for ordinal scale items include the chi-square measure of association, Kendall Tau B, and Kendall Tau C.

Likert scale data, on the other hand, are analyzed at the interval measurement scale. Likert scale items are created by calculating a composite score (sum or mean) from four or more type Likert-type items; therefore, the composite score for Likert scales should be analyzed at the interval measurement scale. Descriptive statistics recommended for interval scale items include the mean for central tendency and standard deviations for variability. Additional data analysis procedures appropriate for interval scale items would include the Pearson's r, *t*-test, ANOVA, and regression procedure. (Harry N. & Deborah A., 2015)

Table (4-8) provides examples of data analysis procedures for Likert-type and Likert scale data.

Table(4-11) Suggested Data Analysis Procedures for Likert-Type and Likert Scale Data

	Likert-Type Data	**Likert Scale Data**
Central Tendency	Median or mode	Mean
Variability	Frequencies	Standard deviation
Associations	Kendall tau B or C	Pearson's *r*
Other Statistics	Chi-square	ANOVA, t-test, regression

The researcher has designed a series of questions that when combined measure a particular trait, she created a Likert scale. Thus she used means and standard deviations to describe the scale.

When multiple Likert question responses are summed together (interval data):

• All questions must use the same Likert scale

• must be a defendable approximation to an interval scale (i.e. coding indicates magnitude of difference between items, but there is no absolute zero point)

• All items measure a single latent variable (i.e. a variable that is not directly observed, but rather inferred from other variables that are observed and directly measured) Dane Bertram

"The average of 'fair' and 'good' is not 'fair-and-a-half'; which is true even when one assigns integers to represent 'fair' and 'good'!" (Jamieson, 2004)

The average of the Likert scale is 3 ((1+2+3+4+5)/5), therefore, a mean above 3 shows an agreement with the statements while a mean below 3 show overall disagreement.

4-6-2 Strategic Dimensions

The arithmetic mean values of the questions regarding the strategic statements are in the range of 3.93-4.52 which means, the respondents have agreed all the statements mentioned, and they strongly agree with the statement that AOU has a vision that encourages the delivery of high quality services. The mean value of this statement is 4.52. (Table 4-12)

Table (4-12) - The Mean and Standard Deviation of Strategic Dimensions

No	Strategic Statements	Mean	Std. Deviation
1	There is a system that facilitates the management of quality.	3.933	.9543
2	Arab Open University creates quality awareness among employees.	3.967	.9909
3	The top management is committed to quality.	4.300	.7876
4	Arab Open University has a mission that defines quality values (Focus on team work, spread information, open communication...)	4.300	.7876
5	Arab open University has a vision that encourages delivery of high quality services.	4.517	.6763
Total		4.203	0.839

4-6-3 Structural Dimensions

The results put in the Table (4-13) indicate that the respondents have agreed all the statements regarding structural statements. The mean values of this variable range between: 3.80 and 4.28.

Table (4-13): The mean and standard deviation of structural dimensions

No	Structural statements	Mean	Std. Deviation
1	Scientific research for academic staff is supported financially by the university.	3.800	.9881
2	The university encourages innovation through acceptance of employees' suggestions	3.867	.9823
3	Management is capable to keep a To-do list of important tasks.	3.933	.8995
4	Libraries provide students with the latest information and technology	4.117	.8654
5	the physical resources are available and always updated to provide tools and materials needed within the university	4.283	.7386
Total		4.000	0.895

4-6-4 Human Resources Dimensions

From table (4-14), the results are as follows:

The respondents have agreed all the statements regarding human resources. The mean values of this variable range between: 3.50 and 4.13

Table (4-14): The Mean and Standard Deviation of Human Resources Dimensions

No	Human Resources statements	Mean	Std. Deviation
1	Employees are motivated.	3.500	1.1424
2	All employees get training and education to show high quality performance.	3.533	1.1270
3	The university encourages employees to change and improve their skills.	3.600	1.1527
4	The university recognizes employees' success.	3.667	1.1885
5	Employees are motivated in doing high quality of work	4.133	.9291
Total		3.687	1.108

4-6-5 Contextual Dimensions

The results given in Table (4-15) indicate that all the respondents have agreed all the contextual statements. The mean values of this variable range between: 3.68 and 4.00.

Table (4-15): The Mean and Standard Deviation of Contextual Dimensions

No	Contextual Statements	Mean	Std. Deviation
11	There is a mutual trust between employees and management.	3.683	1.2953
2	Arab Open University encourages the innovation	3.833	1.1523
3	The organizational culture is flexible: (flexi time & telecommunicating. focus on business results not face time.)	3.850	1.0055
4	The lifelong learning is well understood: (The "ongoing, voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons.)	3.850	.9356
5	There is a cohesion among employees	4.000	.9020
Total		3.843	1.058

4-6-6 Procedural Dimensions

The results mentioned in Table (4-16) indicate that the respondents have agreed all the procedural statements regarding TQM implementation. The mean values of this variable range between: 3.28 – 3.87

Table: (4-16): The Mean and Standard Deviation of Procedural Dimensions

N	Procedural statements	**Mean**	Std. Deviation
1	The decisions are taken in a short time	3.28	.9405
2	Teaching load does not impede the implementation of quality.	3.35	1.0549
3	The university practices benchmarking.	3.72	1.0133
4	The self-evaluation is practiced continuously to maintain the educational system	3.58	.9405
5	There is prompt corrective action in case of problems or complaints.	3.87	.8727
Total		3.56	0.964

4-6-7 Total Quality Management Implementation

The results put in the Table (4-17) indicate that the respondents have agreed all the statements regarding total quality management practices. The mean values of this variable range between: 3.77 and 4.28.

Table (4-17): The Mean and Standard Deviation of Total Quality Management implementation

No	Total Quality Management implementation	Mean	Std. Deviation
1	A culture of high quality performance is shared in the entire university.	3.767	.9273
2	All employees in AOU are involved in quality management programs	3.983	.9654
3	Top management is committed to implement total quality within the university	4.017	.9296
4	AOU continuously improves its processes to provide high quality services.	4.267	.7561
5	The University strives to meet and exceed the customers' needs and expectations	4.283	.7612
Total		4.063	0.868

4-7 Measurement of the relationship between TQM dimensions And TQM implementation

In order to measure the relationship between variables, the researcher decided to use the correlation coefficient which is a measure of the strength of the relationship between x and y for the specific equation of best-fit. For instance, if the equation of best fit is linear, a correlation coefficient close to 1 or -1 suggests that x and y have a strong linear relationship.

The correlation coefficient is sometimes referred to as the r-value so you may consider them to be two ways to refer the same thing.

The correlation coefficient is always a value such as that $-1 < r \leq 1$_

When you consider the correlation coefficient for a specific data set and best fit line, it tells you two things:

a/ the sign of the correlation coefficient tells you something about the behavior of y. More specifically if the sign of r is positive, and then the value of y increases when x is increasing. If the sign is negative, then y decreases as x increases.

b/ the absolute value of the coefficient (its size ignoring the sign) tells you how strong the relationship is between x and y. If the size is 1, then the data is perfectly linear. The closer the value is to zero, the weaker the linear relationship between x and y. the closer the value is to 1, the stronger the linear relationship is between x and y.

Table (4-18) below shows result analysis of Spearman's correlation, this latter proved that the variables (Strategic, structural, human resources, contextual and procedural statements) show significant relationship with TQM. The p-value is much smaller than 0.01which indicates that these variables are significant.

Spearman's rho coefficient

Table (4-18): Correlations

			Strategic statements	Structural statements	Human resource Statements	Contextual Statements	Procedural Statements	TQM
Spearman's rho	Strategic Statements	Correlation Coefficient	1.000					
		Sig. (2-tailed)	.					
		N	60					
	Structural statements	Correlation Coefficient	.679**	1.000				
		Sig. (2-tailed)	.000	.				
		N	60	60				
	Human resources statements	Correlation Coefficient	.725**	.616**	1.000			
		Sig. (2-tailed)	.000	.000	.			
		N	60	60	60			
	Contextual statements	Correlation Coefficient	.624**	.665**	.810**	1.000		
		Sig. (2-tailed)	.000	.000	.000	.		
		N	60	60	60	60		
	Procedural statements	Correlation Coefficient	.606**	.515**	.591**	.556**	1.000	
		Sig. (2-tailed)	.000	.000	.000	.000	.	
		N	60	60	60	60	60	
	TQM statements	Correlation Coefficient	.497**	.479**	.662**	.647**	.678**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.
		N	60	60	60	60	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

From the results, the researcher concluded that the structural dimensions are moderately positively correlated with TQM implementation, while the strategic, the human resources, the contextual and procedural dimensions are strongly positively correlated with TQM implementation. In other words, structural dimensions have moderate relationship with TQM implementation, while strategic, human resources, contextual and procedural dimensions have strong relationship with TQM implementation.

In order to make sure that results are correct, the researcher analyzed data using scatters also.

The scatters below show the relationship between each dimension and the implementation of TQM.

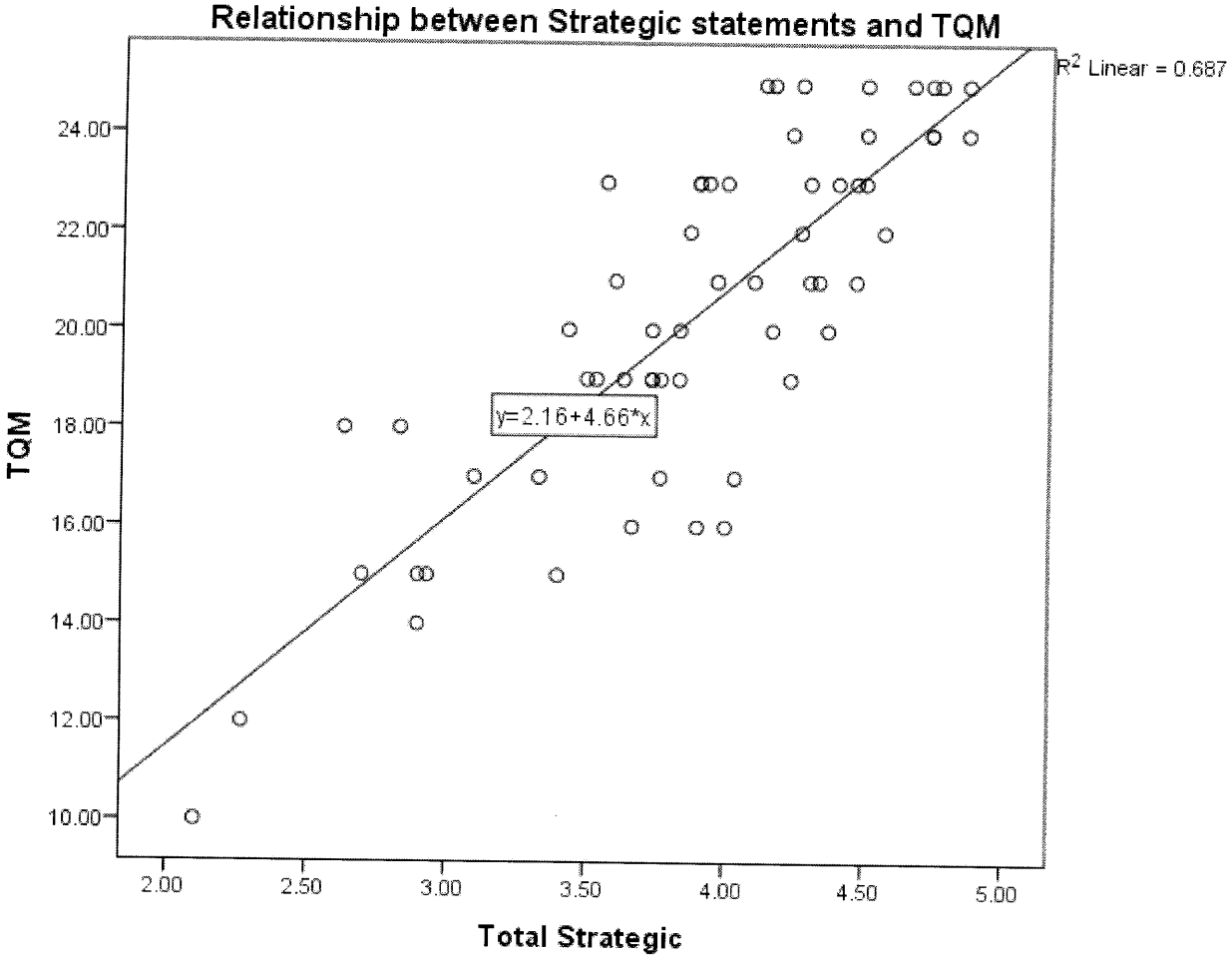


Figure (4-8): Scatter1- Relationship between strategic Dimensions and TQM Implementation

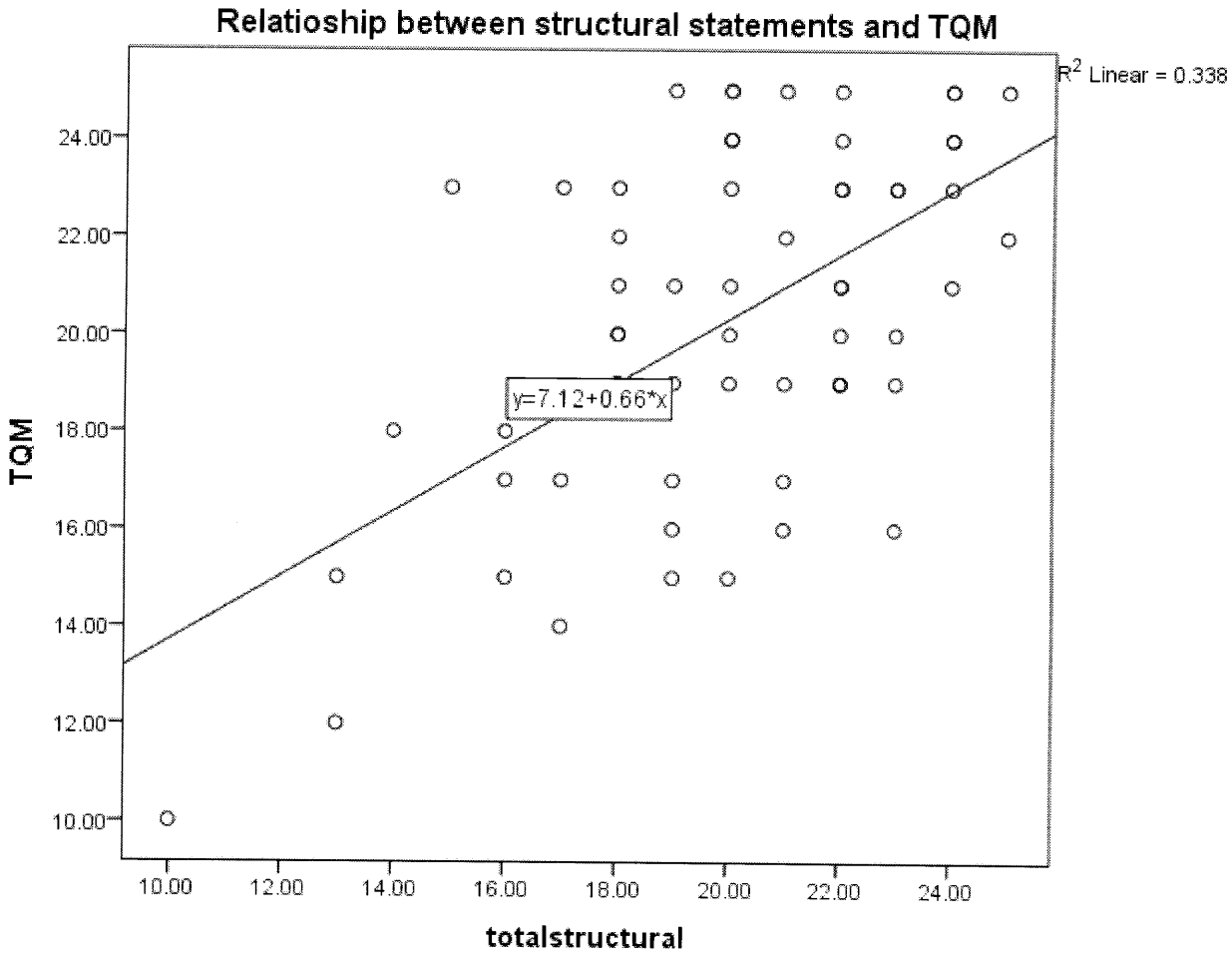
"r" explains the correlation between X and Y, in other words, between strategic dimensions and TQM implementation.

The scatter shows that X and Y are positively correlated, this means that whenever X increases, Y increases also.

In other words, there is a positive relationship between strategic dimensions and TQM implementation.

Scatter 1 shows that: R^2= 0.687, so: **r= 0.83**

Therefore, the researcher concluded that strategic dimensions and TQM implementation are strongly positively correlated, in other words, there is a **strong relationship between strategic dimensions and TQM implementation.**



Figure(4-9): Scatter 2- Relationship between Structural Dimensions and TQM Implementation

"r" explains the correlation between X and Y, in other words, between structural dimensions and TQM implementation.

Scatter2 shows that: R^2= 0.338, so: r= 0.58

The researcher concluded that the correlation between structural statements and TQM implementation is moderate. Thus, there is a **moderate relationship** between structural dimensions and TQM implementation.

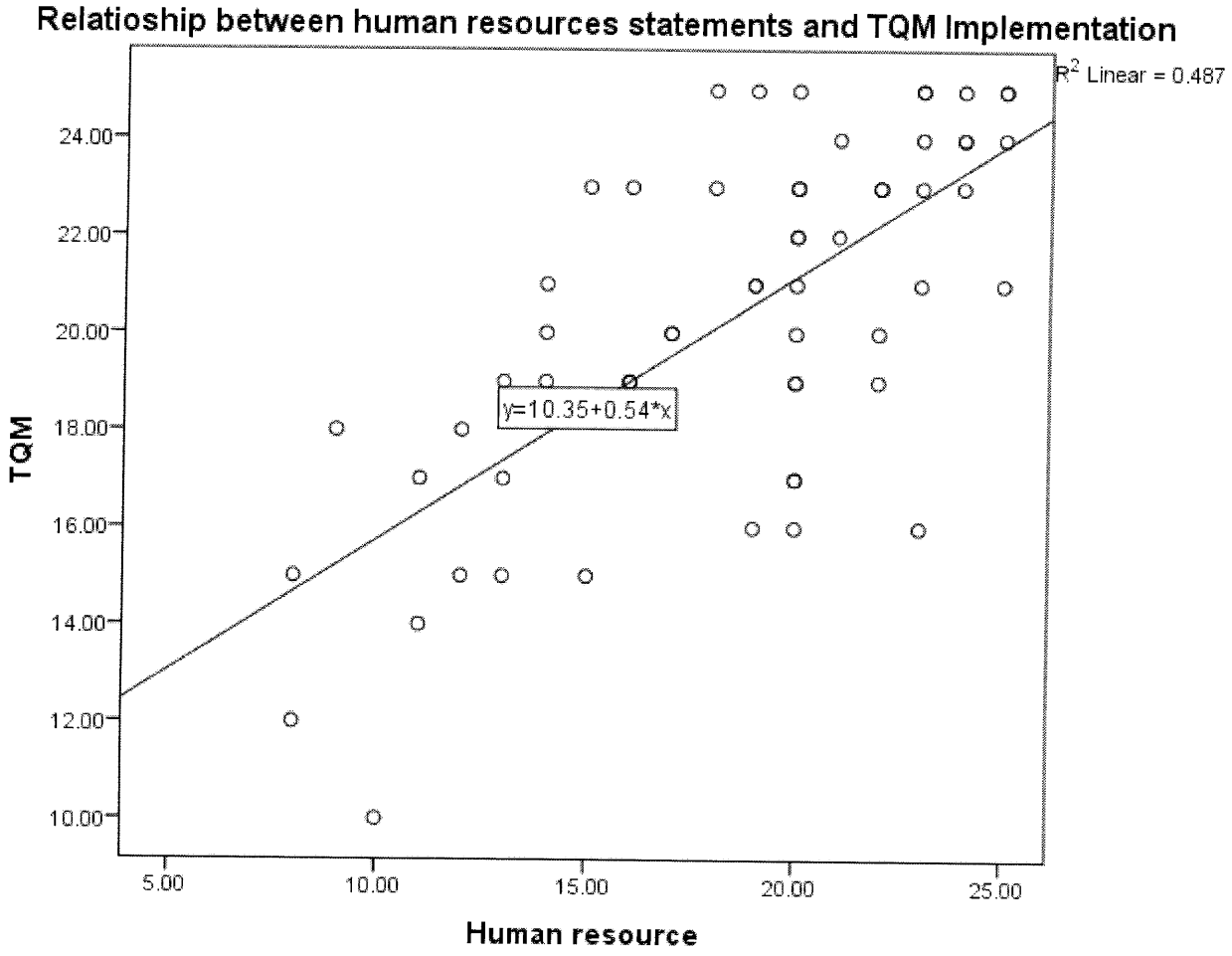
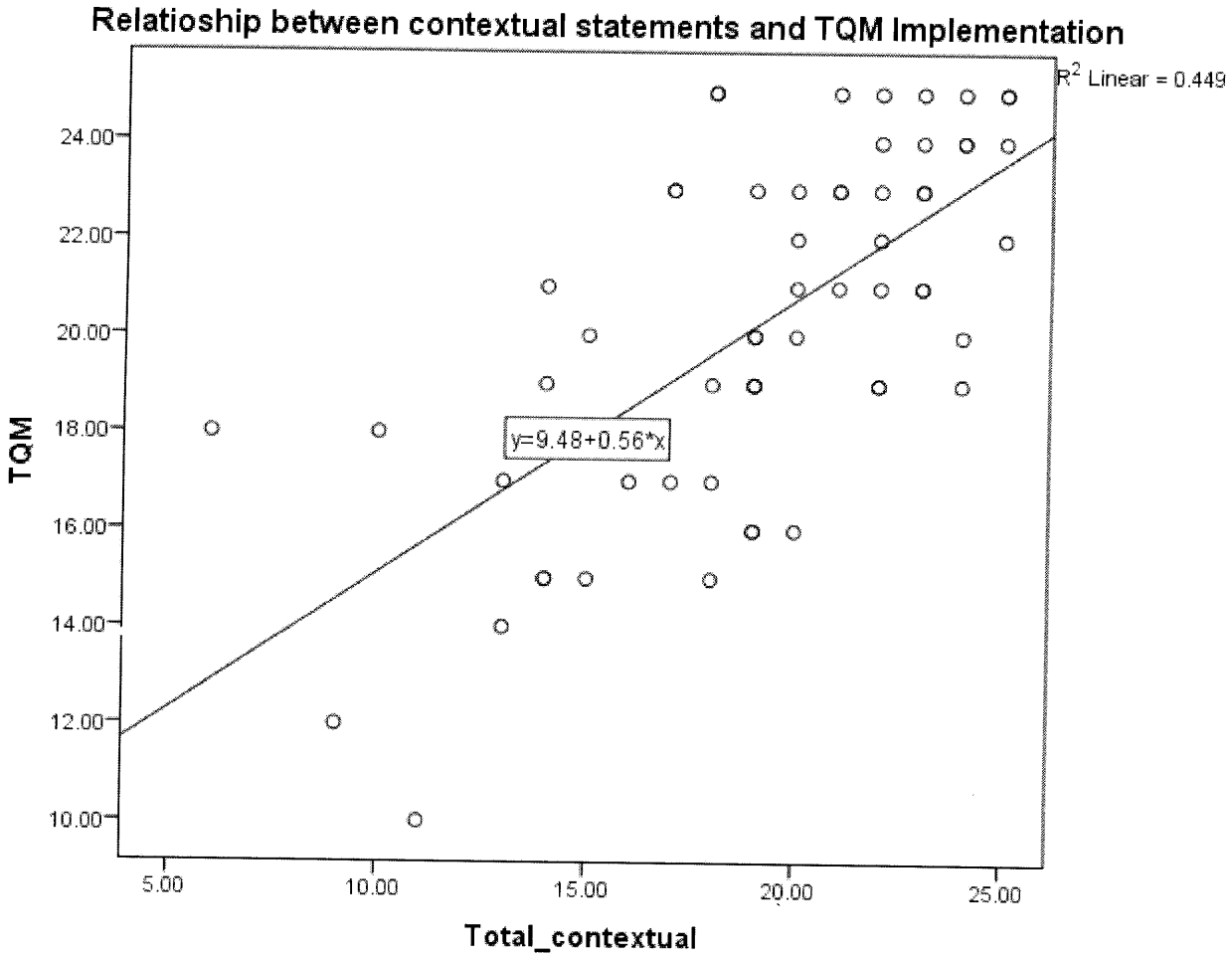


Figure (4-10): Scatter 3-Relationship between HR Dimensions and TQM Implementation

"r" explains the correlation between X and Y, in other words, between human resources dimensions and TQM implementation.

Scatter 3 shows that: $R^2 = 0.487$, so: $r = 0.697$

The researcher concluded that human resources dimensions and TQM implementation are positively strongly correlated. Thus, the researcher concluded that the **relationship between human resources dimensions and TQM implementation is strong.**

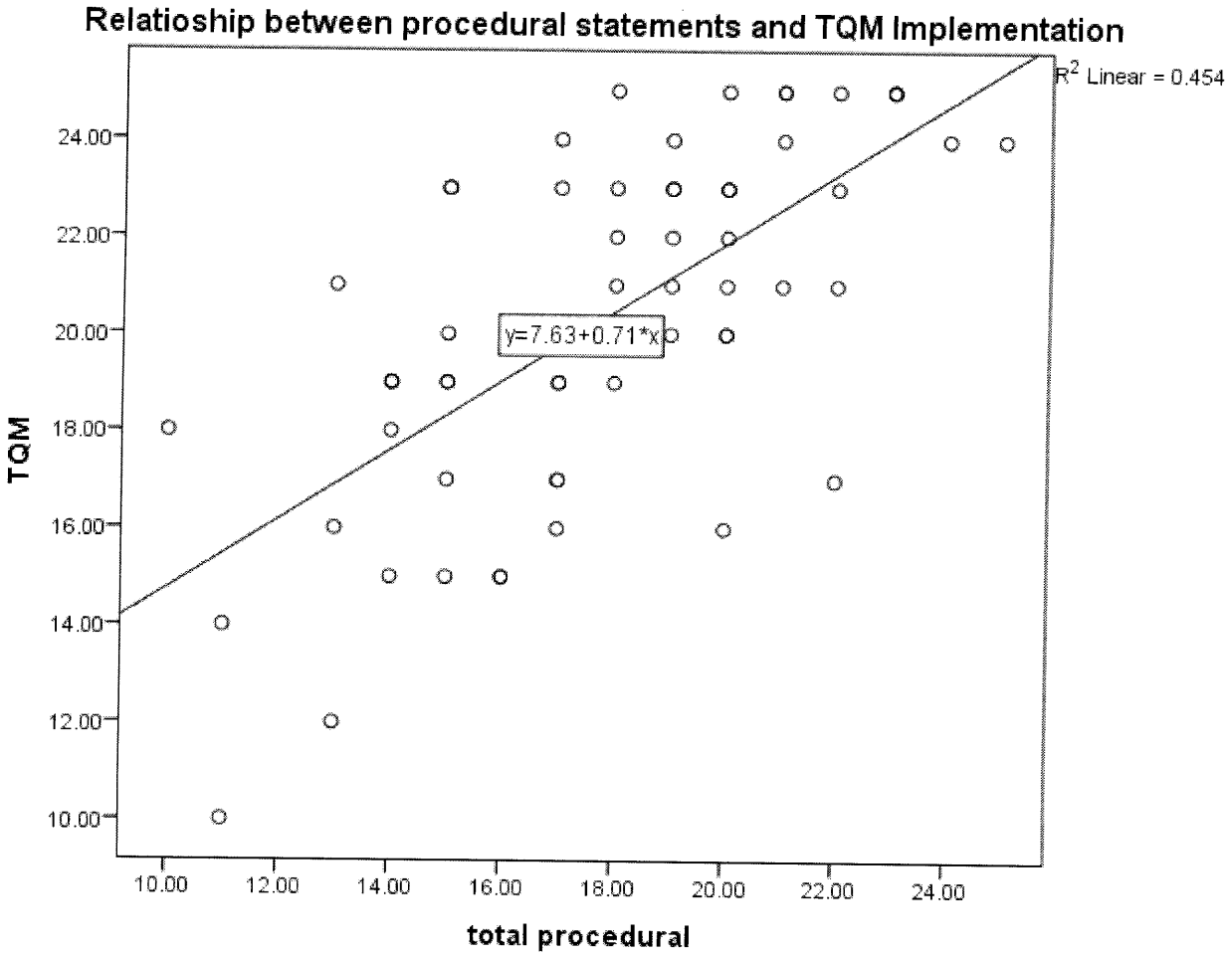


Figure(4-11): Scatter 4- Relationship between Contextual Dimensions and TQM Implementation

"r" explains the correlation between X and Y, in other words, between contextual dimensions and TQM implementation.

Scatter4 shows that: $R^2 = 0.487$, so: $r = 0.697$

The researcher concluded that the contextual dimensions and TQM implementation is are positively strongly correlated. Thus, the researcher concluded that the **relationship between contextual statements and TQM implementation is strong.**



Figure(4-12): Scatter 5- Relationship between Procedural Dimensions and TQM Implementation

"r" explains the correlation between X and Y, in other words, between procedural dimensions and TQM implementation.

Scatter5 shows that: $R^2 = 0.454$, so: **r= 0.674**

The researcher concluded that the procedural dimensions and TQM implementation are positively strongly correlated. Thus, the researcher concluded that the **relationship between procedural dimensions and TQM implementation is strong.**

The researcher got same results from the graph analysis and spearman's rho coefficient correlation; this shows that the results were correct.

4-8 Chapter Summary

- The respondents constituting the population of the study consisted of 56.7% of females and 43.3% of males.
- The age of most of the respondents (43.3%) ranged between 31 and 40 years.
- (33%) of the respondents were from the administration affairs department.
- About 90% of the respondents had a high level degree.
- More than two third of the respondents hold administrative positions.
- Approximately half the respondents 46.7% had a prior knowledge in TQM
- 19 respondents only (31.7) reported having been trained on TQM.
- Cronbach's Alpha for this research is 0.957 which is above 0.8, and hence the data collected for this research were considered to be very good, since it is internally stable and consistent.
- The respondents agreed to all the strategic statements. The mean values were in the range of 3.93-4.52.
- The respondents agreed to all the structural statements. The mean values of this variable ranged between 3.80 and 4.28.
- The respondents have agreed all the statements regarding human resources. The mean values of this variable range between: 3.50 and 4.13
- The respondents agreed to all the contextual statements. The mean values of this variable ranged between3.68 and 4.00.
- The respondents agreed to all the procedural statements. The mean values of this variable ranged between 3.28 – 3.87.
- The respondents agreed to all the statements regarding total quality management. The mean values of this variable ranged between 3.77 and 4.28.
- Observing the results from spearman's coefficient correlation, the researcher concluded that the dimensions were strongly positively correlated, except the structural dimensions which had moderate correlation with TQM implementation. In other words, the strategic, human resources, contextual, and procedural dimensions had a strong relationship with TQM implementation, except structural dimensions which had moderate relationship with TQM implementation.

Chapter 5

Discussion, conclusion and recommendations

5-1 Introduction to chapter 5

In this study the researcher sought to discuss the findings and results that have been revealed from the data presented in chapter 4. The respondents to the survey of the study constituted 80% of the whole population, which means that the results would reflect the whole situation of the university and would be adequately representative.

5-2 Discussion

At the beginning, a set of characteristics describing the respondents are identified. Then the objectives that are related to TQM implementation are discussed. The overall aim of this study is to investigate the current status at the Arab Open University, and subsequently to determine the readiness of Arab Open University to implement TQM within the institution. The findings of the study will help AOU to develop a model for an eventual TQM implementation.

5-2-1 Characteristics of the respondents

This section aims to discuss the representation of the respondents to the entire university.

5-2-1 -1 Gender of participants

It was found that 56.67% of the participants were female, while 43.33% were male. This result reflects that the majority of employees in AOU are females.
As explained in chapter 3, Arab Managers with modern style, accepts the employment of women.
Therefore, the researcher concluded that the style of managers at AOU is modern.

5-2-1-2 Age of participants

Regarding to the age of participants, the study shows that 43.3% of them are aged between

31and 40, 20.00 % between 22 and 30, 20.0% between 41and 50 and 16.67% are more than 50.

The researcher believes that the prevalence of the age group 31-40 is justifiable by highest two main reasons. Firstly, young people in Bahrain complete their study by the age of 22-25 and they need between 4 and 7 years of extra practical experience for a career choice and settlement. Secondly, human resource department in universities mostly prefer to employ people who have a certain level and a number of years of experience, and shun from hiring people with little or no experience.

5-2-1-3 The education level of participants

Considering the education level of the respondents, the study shows that 36.67 % of the respondents hold bachelor's degrees, while 31.67 % of the participants have Masters' degrees, and 23.33% of are PhD holders. Those who have high school degrees and lower degrees, represent 5% and 3.33% of the population respectively. The indication of this research is that the respondents in AOU, Bahrain branch, are well-educated people.

Based on that, it could be indicated that the educational level is considered as one of the most significant requirements for working in AOU.

5-2-1-4 The current position of participants and the names of departments

The findings of the study point to 66.67 % of the participants classifying their job status as administrators, while 31.67% of the participants classifying their job status as holding jobs of academic aspect. The reason for these findings is that some academic staff holds also administrative positions in addition to teaching functions.

Regarding the name of departments, the collected data show that AOU has a many departments: the administration affairs, the academic affairs, the Information Technology and computing, the business administration, the general studies, the admission and registration, the human resource affairs, the financial affairs, and the e- learning.

5-2-1-5 Having prior knowledge on TQM

The study reveals that approximately fifty percent of the population (46.67%) has prior knowledge in TQM, while (53.33%) do not possess any knowledge relating to this field. This result could be attributed to the fact that most of the employees have a high level of education, as they are either bachelor's, master's or PhD's holders.
This factor can be of special significance for AOU in implementing the TQM with less resistance from its staff and with a high commitment from most levels of employment. Overall, it implies that AOU a certain level of a supposed readiness to implement TQM

5-2-1-5 Being trained on TQM

The results show that 68.33% of the respondents have not been trained on TQM, while 31.7% of them have received such training.
This result is quite reasonable as the AOU has not implemented the TQM yet. Moreover, the percentage of people who have received training on TQM is a fairly acceptable, and it might facilitate the process of a future training if AOU sets a TQM implementation model, and this shows a high readiness of AOU to implement TQM.

5-2-2 TQM Dimensions

5-2-2-1 Strategic dimensions

The Strategic dimensions were measured by five statements in the survey. The respondents were asked to state on a five point Likert scale their agreement or disagreement with the given statements concerning strategic dimensions in the university. The results of the study reveal that the statement about AOU having a vision that encourages the delivery of high quality services ranked highest with a mean of 4.52, while that about AOU having a mission that defines quality values had a mean of 4.30, and the top management being committed to quality had a mean of 4.3. The average mean of the whole section is 4.203, which indicates an overall agreement with the strategic dimensions. This result could be interpreted in the following way: the strategic dimensions do not constitute a barrier to the implementing f TQM in AOU.

The results of Spearman's coefficient correlation showed that there is a strong relationship between strategic dimensions and TQM implementation. As a final result, the researcher concluded that there is a high readiness of AOU to implement Total Quality Management in terms of organizational strategy.

5-2-2-2 Structural dimensions

The Structural dimensions were measured by five statements. The respondents were asked to state on a five-point Likert scale their agreement or disagreement with the given statements concerning structural issues in the university. The results varied between 3.80 and 4.28. This means that the respondents agreed with all statements. The answers showed that the statement about the physical resources being available and always updated to provide the university with the tools and materials needed within the university ranked highest with a mean of 4.28, that of libraries providing students with the latest information and technology had a mean of 4.12, which shows that AOU is up- to-date with the external development and updates its resources so as to cope with innovation and new technologies. The average mean of the whole section is 4.00, which indicates an overall agreement with the structural dimensions.

The results of spearman's coefficient correlation showed that there is a moderate relationship between structural dimensions and TQM implementation. As a final result, the researcher concluded that there is a moderate readiness of AOU to implement Total Quality Management with regards to organizational structure.

5-2-2-3 Human resources dimensions

Human resources dimensions were measured by five statements. The respondents were asked to state on a five-point Likert scale their agreement or disagreement with the given statements concerning human resources issues in the university. The results reveal that the statement about employees being involved in showing high quality of work ranked highest with a mean of 4.13. This can be justified by an elevated awareness of showing the high quality. There is an overall agreement on the statement of all employees getting training and education to help them attain high quality performance in a short time. This would be beneficial as the university recognizes what is expected to be done, and it is shown that it follows practices of Total Quality Management implicitly, even if it has not implemented it yet. The

average mean of the whole section is 3.68, which indicates an overall agreement with the human resources dimensions.

The results of Spearman's coefficient correlation showed that there is a strong relationship between human resources dimensions and TQM implementation. As a final result, the researcher concluded that there is a high readiness of AOU to implement Total Quality Management on the level of human resources dimensions.

5-2-2-4 Contextual dimensions

Contextual dimensions were measured by five statements. The respondents were asked to state on a five-point Likert scale their agreement or disagreement with the given statements concerning contextual dimensions in the university. The results ranged between 3.68 and 4.00. The statement about the existence of cohesion between employees ranked highest with a mean of 4.00; those of the life learning being well understood, and the organizational culture being flexible, both had a mean of 3.85. This represents a positive aspect because the awareness of continuous improvement is disseminated across the university, and can be of powerful significance because it is important that employees be capable to learn and improve themselves continuously. This shall, after all, have a positive impact on the performance of the university. On the other hand, the element about the existence of mutual trust between employees and management had a mean of 3.68, which means there is an overall agreement in terms of this point. The average mean of the whole section is 3.84, which indicates an overall agreement with the contextual dimensions

The results of Spearman's coefficient correlation showed that there is a strong relationship between contextual dimensions and TQM implementation. As a final result, the researcher concluded that there is a high readiness of AOU to implement Total Quality Management with regards to contextual dimensions.

5-2-2-5 Procedural dimensions

The Procedural dimensions were measured by five statements. The respondents were asked to state on a five-point Likert scale their agreement or disagreement with the given statements concerning procedural issues in the university. The results from the data collection after the analysis show that the mean of procedural dimensions was 3.56. This reflects an overall agreement from respondents; the statement about the

decisions being taken in a short time ranked lowest with a mean of 3.28, coming after the teaching load not impeding the implementation of quality, which had a mean of 3.35, and taking prompt corrective action in case of problems or complaints had a mean of 3.87. This reflects also an overall agreement from respondents.

The results of Spearman's coefficient correlation showed that there is a strong relationship between procedural dimensions and TQM implementation. As a final result, the researcher concluded that there is a high readiness of AOU to implement Total Quality Management in terms of procedural dimensions.

5-2-2-6 TQM implementation

Total Quality Management implementation was measured by five statements. The respondents were asked to state on a five-point Likert scale their agreement or disagreement with the given statements concerning TQM implementation in the university. The results collected from the data revealed that the statement of the university striving to meet and exceed the students' needs and expectations ranked highest with a mean of 4.28. This means there is an overall agreement from all respondents regarding this point. This comes after the statement about AOU continuously improving its processes to provide quality services to its students which had a mean of 4.27. The management being committed to implement total quality within the university had a mean of 4.02, while the statement of all employees being involved in improving quality within the university had a mean of 3.98. The average mean of the whole section is 4.06, which indicates an overall agreement with the TQM implementation statements. The researcher concluded that there is an overall readiness in this regard.

The researcher summed up the discussion in the following points:

- The aim of this chapter is to summarize and draw out the findings and results that have been revealed from the current investigation.
- The style of managers at AOU is modern, as reflected in a kind of numerical parity between men and women in the various level of jobs
- The distribution of the respondent's age is reasonable and justifiable by socio-economic and socio-cultural factors and considerations.

- The respondents in AOU, Bahrain branch, are well-educated people, spreading on a continuum mostly containing bachelor's, master's and PhD's degrees.
- Most of the participants viewed and classified their job status as administrators.
- Approximately fifty percent of the respondents (46.67%) have prior knowledge in TQM, which reflects a positive factor that increases the readiness of AOU to implement TQM.
- 31.7% of the respondents have received the TQM training. This is a fairly reasonable result as AOU has not implemented TQM yet. This also shows a high readiness of AOU to implement TQM.
- The researcher concluded that there is a moderate readiness in terms of structural dimensions with regards to TQM implementation.
- The strategic, human resources, contextual, and procedural dimensions do not make up any sort of barriers to the implementation of TQM in AOU. Hence, there is a high readiness of AOU to implement Total Quality Management in terms of organizational strategy, human resources, contextual and procedural dimensions.

5-3 Conclusion

A clear, striking and strong relationship between strategic, human resources, contextual and procedural dimensions and TQM implementation has been revealed. However, structural dimensions illustrated just a moderate relationship with TQM implementation. Thus, the researcher concluded that there is a moderate readiness in terms of structural dimensions in relation with TQM implementation.

The strategic, human resources, contextual, and procedural dimensions do not present obstacles to implementing TQM in AOU. This implies a high readiness of AOU to implement total quality management with regards to organizational strategy, human resources, contextual and procedural dimensions.

The question raised in the introduction of this study was the following:
How can AOU maintain this high level of performance appraisal and how to ensure that its faculties receive outstanding scores?

From the finding and discussion, the researcher concluded the following results:
-There is a high readiness of AOU to implement Total Quality Management in terms of organizational strategy, human resources, contextual, and procedural dimensions.
-There is a moderate readiness of AOU to implement total quality management in terms organizational structure.

When applying the 1-10-100 rule, the researcher realized that AOU is in the phase of prevention because it has not implemented TQM yet. So when setting the model of implementing TQM, AOU should take into consideration the results of the current study; in other words it should set a plan to avoid some of the barriers that may emerge. These barriers, if they do occur, would be related to structural dimensions.
The prevention phase as the researcher mentioned previously will cost the university $1 only. Moreover, it could stay at the level of confidence, and if it succeeds to attain a zero-defect stage, it could get an outstanding level. Thus, AOU could achieve a high quality performance in the short and long terms, and achieve some type of competitive advantage, increase its presence in, and share of, the market. This shall ultimately result in fostering the university viability.

5-4 Recommendations

The results show that AOU has a moderate readiness to implement TQM in terms of structural dimensions. Therefore, the following recommendations will be given with this regards.

1- AOU should not leave the matter to chance; it should rather set up a well-defined, clearly-structured and highly-detailed innovation program that is the outcome of the participation of, and aims at the involvement of, all employees.
2- Hiring creative employees would be a strong factor that enhances AOU readiness for the implementation of TQM.
3- Giving more attention to scheduling important tasks would keep work on track and under control and would make AOU to take measures to prevent or overcome obstacles .
4- Increasing investment in R&D would encourage innovation and would keep AOU a step ahead of competitors.
5- Encouraging employees' suggestions would lead to more employees' involvement in the development and implementation of AOU policy.

5-5 Recommendations for further studies

This study helped to suggest several future studies, for instance:

1- Same research can be conducted in the other different branches of AOU, in Saudi Arabia, Kuwait, Oman, Lebanon, and Jordan.
2- Same research can be conducted in other universities of Bahrain, either private or public sector.
3- Another same study could be conducted in other universities in other countries.
4- Research can be conducted to set a model that fits with the AOU structure and strategy.
5- A future study could be conducted to determine the factors of successful implementation of TQM.

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Appendices

Appendix 1 : Recommendation letter

Appendix 2 : Permission letter

Appendix 3 : Questionnaire

Appendix 4 : Responses of questionnaire

Appendix 1 : Recommendation letter

UNIVERSITY OF BAHRAIN
College of Business Administration
Office of the Dean

جامعة البحرين
كلية إدارة الأعمال
مكتب العميد

26 March 2015

To Whom it may Concern

Samira El Ouali is one of my students at the Masters of Business Administration Program and is currently enrolled in the Master Project in Management course (MGT 698). She is conducting a research on "Barriers of implementation of TQM in higher education: A case study of universities in Bahrain" as partial fulfillment of the requirements for that course.

She kindly seeks your approval to allow her to conduct her research in the Arab Open University as one of higher education institutions in Bahrain. All the data collected will be treated with confidentiality and will solely be used for the academic purposes.

I appreciate your cooperation and assistance in this regard.

With regards,

Course Instructor

Prof Minwir Al-Shammari

minwir@gmail.com

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صندوق بريد: ٣٢٠٣٨ - مملكة البحرين
هاتف: ١٧٤٣٨٥٠٠ / ١٧٤٣٨٤٨٧ (٩٧٣+)
فاكس: ١٧٤٤٩٧٧٦ (٩٧٣+)

Appendix 2 : Permission letter

Arab Open University
Kingdom of Bahrain Branch
Office of the Director

الجامعة العربية المفتوحة
فرع مملكة البحرين
مكتب المدير

Mrs. Samira Al-Ouali
Student, University of Bahrain
samira.elouali@gmail.com

Date: 27th, May 2015

Dear Madam,

Subject: Permission to collect primary data on AOU-Bahrain

On behalf of Arab Open University (AOU) Branch of Kingdom of Bahrain, It is our pleasure to foster researcher's good causes and students.

You are permitted to collect data from AOU-Bahrain employees using the reviewed and approved questionnaire by our Quality Assurance unit dated 21st, May 2015 with respect confidentiality assured on letter dated 26th, March 2015 signed by Dr. Minwir Al-Shammari.

It is our pleasure to pursue our values into contributing to Bahrain's higher education sector.

With regards.

Dr. Khaldoon Al-Roomi
Branch Director
Arab Open University
Kingdom of Bahrain

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Appendix 3 : Questionnaire

Survey for Determination to What Extent Arab Open University is Getting Ready to Implement Total Quality Management(TQM)

Done by: Samira El Ouali El Alami,
MBA, University of Bahrain

Supervised by: Dr. Minwir Al Shammari

Dear respondents,

Please do not mention your name, or anything that identifies yourself.

Kindly be accurate in your answers in order to help in enhancing the quality of education of the college, and note that all information provided will be dealt with confidentiality.

This questionnaire aims to define at which extent AOU is ready to implement total quality management within the institution.

Academic year: 20_ _ / 20 _ _

Name of the college: .....

Gender: (0) Male
(1) Female

Indicate your choice by number → _

Age: (1) 22-30 years / (2) 31-40 years
(3) 41-49 years/ (4) 50 years and above

Indicate your choice by number → _

Education Level: (1) Doctorate (2)Masters (3) Bachelors (4) High school or equivalent (5) Others

Indicate your choice by number → _

Current position in University: (1) Academic level (2) Administrative level

Indicate your choice by number → _

Having prior Knowledge on TQM: (1) Yes (0) No

Indicate your choice by number → _

Being trained on TQM: (1) Yes (0) No

Indicate your choice by number → _

Every item in the table has a 5 points scale which ranges from (1) to (5).

1 = Strongly Disagree, **2** =Disagree, **3** = Neither Agree nor disagree, **4**Agree=, **5** = StronglyAgree

Kindly read each statement carefully and shade the circle completely, mentioning at which extent are you

		1	2	3	4	5
	Strategic statements					
	-Arab open university has a vision that encourages the delivery of high quality services.	O	O	O	O	O
	-Arab open university has a mission that defines quality values.	O	O	O	O	O
	- The top management is committed to quality.	O	O	O	O	O
	- Arab open university creates quality awarenessamong employees.	O	O	O	O	O
	- There is a system that facilitates the management of quality.	O	O	O	O	O
	Structural statements					
	- The physical resources are available and always updated to provide tools and materials needed within the university.	O	O	O	O	O
	- The university encourages innovationthrough acceptance of employees' suggestions.	O	O	O	O	O
	- Librariesprovide students with the latest information and technology.	O	O	O	O	O
	- Scientificresearch is supported financially for academic staff by the university.	O	O	O	O	O
0	- Management is capable to keep a To-do list of important tasks.	O	O	O	O	O
	Human Resources statements					
1	-Employees are involved in showing high quality of work.	O	O	O	O	O
2	- All employees get training and education to show high quality performance.	O	O	O	O	O
3	- Employees are motivated.	O	O	O	O	O
4	- The university encourages employees to change and improve their skills.	O	O	O	O	O
5	- The university recognizes employees' success.	O	O	O	O	O
	Contextual statements					
6	- The organizational culture is flexible: (Flexi-time &telecommunicating. Focus on business results not face time)	O	O	O	O	O
7	-The lifelong learning is well understood: (The "ongoing, voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons.)	O	O	O	O	O
8	- There is a mutual trust between employeesand management.	O	O	O	O	O
9	- The university encourages the innovation.	O	O	O	O	O
0	- There iscohesion among employees.	O	O	O	O	O
	Procedural statements					
1	- The decisions are taken in a short time.	O	O	O	O	O
2	- Teaching loaddoes not impede the implementation of quality.	O	O	O	O	O
3	- The self-evaluation is practiced continuously to maintain the educational system.	O	O	O	O	O
4	- The university practices benchmarking.	O	O	O	O	O
5	- There is prompt corrective action in case of problems or complaints.	O	O	O	O	O
	Total Quality Management Practices					
6	- Top Management is committed to implement total quality within the University	O	O	O	O	O
7	-The University strives to meet and exceed the students' needs and expectations.	O	O	O	O	O
8	- All employees are involved in improving quality within the university.	O	O	O	O	O
9	- A culture of high quality performance is shared in the entire university.	O	O	O	O	O
0	- AOU continuously improves its processes to give quality services to its students.	O	O	O	O	O

Please indicate your expectations from the implementation of TQM in the Arab Open University.

1- .....

2- .....

If you have any further remarks, please do not hesitate to note them:

1-.....

2-.....

Thank You

Appendix 4 : Responses of questionnaire

2014 / 2015	6	1	2	3	5	1	3	3	4	2	4	2	4	4	2	4	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	4	4	4	2	4
2014 / 2015	4	0	2	3	3	1	3	2	2	2	2	3	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2
2014 / 2015	1	1	3	2	1	1	5	5	5	5	5	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5
2014 / 2015	4	0	2	1	1	1	5	4	5	4	3	4	4	4	3	2	4	2	3	1	1	4	3	1	1	4	1	4	4	1	1	4	3	3	1	3
2014 / 2015	9	1	2	4	2	2	5	4	4	4	3	4	3	3	3	3	3	2	2	3	3	3	3	4	3	4	3	3	4	4	3	3	4	3	3	4
2014 / 2015	4	1	2	3	2	2	5	5	4	4	5	5	5	4	4	4	4	2	3	3	4	4	3	4	4	4	3	1	2	4	4	4	4	4	4	3
2014 / 2015	1	0	4	2	1	2	4	4	4	3	4	4	4	4	3	4	4	3	4	4	4	4	4	4	4	4	3	3	3	4	4	3	4	3	3	3
2014 / 2015	5	1	3	3	2	2	5	5	5	4	5	5	5	5	5	5	5	4	4	3	5	5	5	5	5	5	4	5	3	5	3	5	5	4	4	4
2014 / 2015	9	1	2	2	2	2	4	2	3	2	1	5	4	4	3	3	3	3	1	2	3	3	3	1	3	4	3	4	2	3	4	3	4	1	3	4
2014 / 2015	4	0	3	1	1	1	5	4	4	4	4	5	4	2	3	4	4	4	4	5	3	4	4	4	3	4	3	1	4	4	3	4	4	3	4	4
2014 / 2015	9	1	1	3	2	1	3	4	2	1	3	4	2	4	4	2	2	1	2	1	2	4	4	1	1	4	4	3	3	1	4	2	2	4	4	3
2014 / 2015	9	0	4	1	1	1	5	4	4	4	5	4	4	4	3	4	4	4	4	4	3	4	5	4	4	3	3	3	4	4	4	4	4	4	4	5
2014 / 2015	5	0	4	1	1	1	5	5	5	5	4	5	4	4	4	4	4	4	4	4	4	3	4	4	4	4	3	4	5	4	4	3	3	3	3	4
2014 / 2015	8	1	2	2	2	1	5	4	4	5	3	5	4	5	5	4	4	3	3	4	3	3	4	4	3	5	3	3	3	2	4	4	4	3	4	5
2014 / 2015	2	0	1	3	2	1	4	3	3	3	4	4	2	2	2	3	4	2	2	3	2	3	2	2	3	5	2	2	4	1	5	3	4	2	2	4
2014 / 2015	2	0	2	3	2	2	5	3	5	4	4	4	4	4	3	4	4	3	4	4	5	3	4	4	4	4	3	3	4	3	4	3	4	4	4	4
2014 / 2015	6	1	2	2	2	1	5	4	4	4	3	4	3	4	3	3	4	3	1	2	1	3	2	1	3	4	3	3	3	3	3	3	4	3	4	3
2014 / 2015	3	1	3	1	1	1	5	5	5	5	5	3	3	5	5	4	5	4	4	4	5	5	5	5	5	4	3	4	5	5	3	4	4	4	4	4
2014 / 2015	2	1	1	3	1	2	4	3	3	3	3	4	5	4	5	4	3	2	4	3	4	5	5	3	5	4	3	3	4	3	4	4	4	4	3	4
2014 / 2015	4	1	2	2	2	1	4	5	5	4	3	3	4	5	5	5	4	4	4	4	4	5	5	4	5	4	4	4	5	4	5	5	5	4	3	4
2014 / 2015	7	1	3	3	2	2	4	4	4	5	4	4	4	4	4	4	4	5	4	5	5	2	4	4	4	4	2	3	3	5	5	5	5	5	5	5
2014 / 2015	4	0	2	1	1	1	5	5	5	5	5	5	4	4	5	3	4	4	4	4	4	4	3	4	4	1	3	5	5	5	4	4	4	2	3	4
2014 / 2015	3	0	2	2	2	2	5	5	5	5	4	5	4	5	4	3	5	3	4	4	4	5	4	5	4	4	4	3	4	4	4	5	4	4	4	5
2014 / 2015	9	0	1	5	coffee make	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5	3	5	5	5	5	5	5
2014 / 2015	2	0	1	3	2	2	4	4	4	4	3	5	4	5	4	5	3	3	2	2	3	3	4	2	2	3	4	4	3	3	4	4	4	3	4	4
2014 / 2015	2	0	1	4	2	2	5	4	3	2	4	3	1	5	4	4	5	5	5	4	4	4	3	4	5	5	4	3	3	4	4	4	5	5	4	5
2014 / 2015	2	1	2	2	2	2	5	5	5	5	5	5	5	5	4	5	5	4	5	5	5	5	4	5	5	5	3	5	4	4	5	5	5	5	5	4

2014 / 2015	E-learning	1	1	2	2	1	5	4	4	4	4	4	1	3	3	3	3	3	1	3	2	1	2	1	1	1	1	2	3	4	4	4	4	3	3	4
2014 / 2015	2	1	3	5	2	2	4	4	5	5	4	4	4	4	4	4	4	5	4	3	3	4	4	4	4	5	4	4	4	4	4	4	4	4	4	5
2014 / 2015	6	0	2	3	2	1	5	5	5	5	5	5	4	4	4	5	5	4	5	4	5	5	4	5	4	4	4	4	4	4	5	3	4	5	5	4
2014 / 2015	Examination department	0	1	3	2	2	4	5	4	4	4	3	3	4	2	3	5	5	1	3	2	3	3	4	3	4	3	3	3	3	3	5	5	5	3	5
2014 / 2015	6	1	2	2	2	2	4	5	5	4	4	4	4	4	3	5	5	4	4	4	4	5	5	4	5	4	2	2	4	4	5	5	5	5	4	5
2014 / 2015	Learning resource center	1	2	2	2	2	4	4	4	3	4	4	4	3	3	4	4	3	3	3	4	3	4	4	4	4	3	4	4	4	4	4	4	4	4	4
2014 / 2015	4	0	4	1	1	1	5	5	5	4	5	5	4	5	5	5	5	4	3	5	3	4	4	4	5	4	4	5	5	4	4	5	5	4	4	5
2014 / 2015	1	1	3	3	2	2	5	5	4	4	3	5	4	5	5	4	3	2	3	2	5	4	3	4	4	4	4	2	5	2	4	4	5	4	5	5
2014 / 2015	3	1	2	4	2	1	3	4	3	3	3	4	3	3	4	4	5	5	4	4	4	5	4	5	4	5	3	3	3	3	3	5	4	5	4	5
2014 / 2015	5	1	4	1	1	2	4	4	4	4	4	5	4	4	3	4	4	3	3	4	4	4	4	3	3	3	4	3	4	4	4	4	5	5	4	5
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2014 / 2015	2	1	1	3	2	1	5	5	4	4	4	3	3	4	4	4	5	2	2	2	3	2	4	2	3	3	4	3	4	4	4	5	4	4	4	4
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2014 / 2015	6	1	1	3	2	2	3	3	4	2	1	3	3	4	2	1	3	1	2	1	1	2	2	1	1	3	3	3	2	2	3	1	3	3	2	3
2014 / 2015	2	1	2	2	2	2	4	4	5	4	4	5	5	4	2	3	2	4	4	4	4	5	2	2	4	5	5	5	5	4	4	5	5	5	5	5
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2014 / 2015	2	1	2	2	2	2	4	4	4	4	3	4	4	4	3	3	5	3	2	3	1	3	4	1	3	4	3	4	3	3	4	4	4	4	4	4
2014 / 2015	System development and support	1	1	2	2	1	4	4	5	4	3	5	4	4	3	4	3	2	3	3	3	3	3	4	4	4	2	3	3	3	3	3	5	4	3	4
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2014 / 2015	2	1	2	3	2	2	3	4	4	4	3	4	4	4	4	4	3	3	3	3	3	4	4	4	3	3	4	3	3	3	3	3	3	3	3	3

2014 / 2015		4	1	4	1		1	1	5	5	5	5	5	5	5	5	4	5	5	5	5	5	4	4	4	5	5	5	3	5	3	5	5	5	5	5	5	5
2014 / 2015		2	0	4	1		2	1	5	5	5	4	3	4	4	5	5	4	4	4	4	4	4	4	4	5	5	5	3	4	4	4	4	5	5	4	4	5
2014 / 2015		7	0	3	3		2	2	5	5	5	5	5	5	4	4	4	5	5	4	4	4	5	5	4	5	5	5	3	3	3	3	3	3	3	5	3	5
2014 / 2015		2	0	2	3		2	1	5	5	5	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	5	5	5	5	5	5
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2014 / 2015		2	1	2	2		2	2	5	4	5	4	5	5	4	4	4	5	5	5	4	4	4	4	5	4	5	4	4	4	4	4	4	4	5	5	4	5
2014 / 2015		2	1	2	3		2	2	4	3	4	3	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	4	5	5	4	4