ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

EFFECTS OF EMPLOYEES' COMMITMENT ONQUALITY MANAGEMENT SYSTEM(QMS) IMPELEMENTATIONS: A CASE OF ETHIOPIAN PHARMACEUTICALS SUPPLY AGENCY(EPSA)

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Declaration

I, ZelalemNigusse, declare that this study entitled “the effects of employee’s commitment on Quality Management System (QMS) Implementations” is my original work. I have carried out the present study independently with the guidance and support of the research advisor, AbebaBeyene (PHD). Any other contributors or sources used for the study have been duly acknowledged. Moreover, this study has not been submitted for any Degree or Diploma program in this or any other institution.

ZelalemNigusse Signature _____ Date_____

Letter of Certification

This is to certify that, this research work entitled “the effects of employee’s commitment on Quality Management System (QMS) Implementations.” undertaken by ZelalemNigusse for the partial fulfillment of Master of Business Leadership (MBL) at Addis Ababa University School of Commerce, is an original work and not submitted for any Degree either at this university or any other universities.

AbebaBeyene (PhD), Advisor Signature _____ Date _____

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Abstract

The purpose of this study is to assess the effects of employee's commitment on Quality Management System *(QMS) Implementations, a continual improvement practice**,** in the case of*Ethiopian Pharmaceuticals Supply Agency. *The study was conducted based on derived* Three Component Model (TCM) *of employee commitment to quality. Both descriptive and explanatory research design and both quantitative and qualitative research approach was utilized. A questionnaire was administered to EPSA employees working in two EPSA hubs and central EPSA and the respondents were selected by using stratified sampling method. The collected data was analyzed using SPSS software version 22. In addition, Nonparametric Kendall's Tau-B correlation and Generalized Linear Regression model were used. The Affective commitment, Behavioral commitment, and Cognitive Commitments have* significant monotonic relationships or correspondence with Quality Management System Implementations (QMSI). *There is a considerable effect of overall employee's commitment onthe quality management system implementations (QMSI) in the organizational operations of EPSA, have different influencing extents on QMSI in the three dimension of employee commitment, while Affective commitment have the most significant effect on QMSI. It is recommended that EPSA'S employee commitments need critical attentions in the quality management system implementations (QMSI).*

Key Word:*Quality, Quality management system, Employee commitment, Affective commitment, Behavioral commitment, & Cognitive commitment.*

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ZelalemNigusse

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CHAPTER ONE
INTRODUCTION

In this chapter the general background of the research was presented. It included the background of the study, statement of the research problems, the research questions, research objectives, scope and limitation of the study, significance of the study, and the definitions of key terms.

1.1. Background of the Study

Following the liberalization of most economies in the 1980s and early 1990s, most organizations in developing countries have experienced growing competition from multinationals and organizations must devise ways of becoming more responsive to customer expectations to compete favorably in the global village (Andrew, 2017).Globalization of market economies has urged corporations in all sectors to concentrate on maintaining a sustainable competitive edge, which is directly, related to the upkeep of quality both in terms of services as well productivity (Nyawira&Omondi, 2016).

Quality management system-basedon ISO 9001 is a group of rules and processes interconnected and implemented within departments in an organization, and to ensure those processes can execute harmoniously and achieve a good quality and performance level of goods produced or services provided (Almeida, Muniz, & Costa, 2014). The International Organization for Standardization (ISO) is one of the quality systems used to provide business with capability for their processes and requirements as well as management practices. ISO 9001 had brought a lot of advantages and benefits to an organization such as improved productivity, consistency in quality, employee involvement, staff morale and job satisfaction (Othman, 2017)

The attainment of quality requires activities in all functions of a firm. Juran's approach is emphasis on team such as Quality circles and self-managing teamsand project work, which can promote quality improvement, improve communication between management and employee's coordination, and improve coordination between employees. He also emphasized the importance of top management commitment and empowerment, participation, recognition, and rewards.Heconsidered quality management as three basic processes (Juran Trilogy): Quality control, quality improvement, and quality planning (Nyawira&Omondi, 2016).

A quality system is a people system: it is designed by people; it is administered by people and above all it is there to serve people. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit (ISO 9001: Quality Management System Requirements, 2015). Quality is the basis for the whole of modern manufacturing and service delivery processes. Research and practice have shown the importance of individual employees taking ownership over the quality of their work. Quality is no longer the responsibility of a separate quality assurance department it is the responsibility of every employee (Jackson, 2004).

Organizations should understand that employees have their own requirements and personal wishes that need to be considered. Organizations must meet their strategic aims and advantage in the marketplace by employing and keeping high performing employees. Deming (1986) and quality gurus have characterized human resources (HR) management as important driver of total quality managementimplementation, emphasizing its implications in quality continuous improvement. In addition, as stressed by Welikala and Sohal (2008), employees' involvement in decision making is intrinsically at the heart of the TQM concept (Mendes, 2012).

Continuously changing business environment, globalization, intense competition, and growing customers' requirements caused that in recent years popularity of the issues related to the employee's commitment significantly increased. It began to be regarded as the key to organization success and growth of its competitiveness on the market (Gruman, Saks, 2011). Recognition and use of opportunities are highly dependent on the employee'scommitment (Frankovsky, Istvanikova&Stefko, 2009). Research so far inthis area, has confirmed that a high level of employees' commitment has a positive impact increasing in productivity and efficiency as well as better relations with customers (Brzeziski, &Baka, 2015).

For years, the commitment has been defined and measured in different ways. But the lack of consensus in defining this term greatly contributed to its treatment as a multidimensional construct (Meyer, Allen, 1991). Even if there are more dimensions or form of commitment, there must be a core marking it. To determine what the essential core is, what is common among existing conceptualities, the authors do not agree on the nature of attitudes and therefore different types (dimensions) of commitment identified by them(Radosavljević, Ćilerdžić, &Dragić, 2017).According to the study of Brzezinski andBaka (2015),Employee commitment can be considered in three dimensions: cognitive, emotional, and behavioral. Cognitive dimension refers to the employee knowledge about the organization. In contrast, employee feelings to the organization, its objectives, management approach or presented by it values are placed in the emotional dimension. Behavioral dimension includes employee's penchant to certain behaviors against the organization (Brzeziski&Baka, 2015)

Commitment to quality is a strong indicator of that ownership and a key prerequisite for both personal and organizational effectiveness. Given the strong importance of commitment to quality, it is surprising that there is no adequate measure in this area that can be used in empirical

studies (Jackson,2004). In this study, the effects of employee's commitment on **Quality management system (QMS)Implementations** in the case ofEthiopian Pharmaceutical Fund & Supply Agency will be examined.

There exist several competing and complementary theories about employees' commitment to the organization that have been researched. This study will adopt the conceptualization and measurement for Employee commitment to quality byJackson (2004), who developed Employee commitment to quality as: **Affective commitment, Behavioral commitment, and Cognitive commitment** which was adapted from the known theoretical frame of employees' commitment to organization, the Three Component Model of Employees Commitment to the Organization (TCM), by Meyer and Allen's (1991).

1.2. Background of the Organization

Pharmaceuticals Supply Agency (EPSA)is legal entity established under the law of FDREG/ Federal Democratic Republic of Ethiopia Government to overcome the problems and assure uninterrupted supply of pharmaceuticals to the public at an affordable price. The Pharmaceuticals Supply Agency was established in September 2007 by Proclamation No. 553/2007 as part of PLMI/ Pharmaceutical Logistic Master Plan Implementation. In addition to enhance social responsibilities, the organization assumes to be competitive for its survival and achievement of intended goal. The Agency has six clustersbased on geographical locations for addressing the distribution of pharmaceuticals for the health facilities in Ethiopia. Head office of the Agency is found in Addis Ababa, Ethiopia.

According to the strategic document, Five-Year Pharmaceutical Supply Transformation Plan (PSTP) from 2015/16 - 2019/20, to ensure the continuous supply of quality essential pharmaceuticals necessary for the achievement of the targets set in the HSTP, the Agency aims at achieving excellence in four thematic areas related to the supply chain management of pharmaceuticals: Excellence in Supply of Pharmaceuticals, Excellence in Financial Management System, Excellence in Leadership and Governance, and Excellence in Supply Chain Systems Capacity. The agency had been announced changes and reforms for multiple times and in recent years tried to implement QMS initiatives as continuous improvement initiative as one of a government health sector organization.

The purpose of this research was to empirically investigate the assumption that employees' commitment influences implementation of quality management systems in the operations of Ethiopian Pharmaceutical Supply Agency. We applied both qualitative and quantitative methodology for this study. Thus, this survey method had been adapted the conceptualization and measurement for Employee commitment to quality by Paul R. Jackson (2004), **Affective commitment, Behavioral commitment, and Cognitive commitment**, was identified as measurable dimensions of employees' commitment for the purpose of questioner development and data collection from the study areas.

1.3. Research Problem

Nowadays, many companies are aiming to become world-class organizations and achieve "business excellence" through the strategic implementation of QMSs. However, the successful implementation of some QMSs canbe a difficult task (Cândido& Santos, 2011). According to Short (1995), it is the QMS implementation stage and not the QMS principles which is the main

factor that can make a QMS implementation to fail or be unsuccessful,manyorganizations invest a considerable number of human resources, capital, and time to build the right QMSs, but in many instances the QMSs and the adoption of specific business and quality improvement models, methods, and tools, are not adequate and/or are poorly deployed. Also, in many cases, QMSs are not aligned with strategic quality planning and business strategies(Garza, Rocha, &Kumar, 2011).

An employee commitment towards his organization is extremely valuable. The commitment shown by the employee is important for efficiency, quality, and worthy performance of an organization (Akhtar, 2014). The more motivation employees have, the more committed they become to the organization.An organization which does not motivate its employees is bound to lag in terms of competition in the market (Gilo,2017). It is necessary for every organization to have full level of its employee commitment to have outstanding performance on long term basis (Andrew,2017).Sadikoglu and Olcay (2014) identified employee's related barriers to QMSas: Resistance of the workforce; inadequate use of empowerment and teamwork; failure to develop employee participation.

From assessment of literatures, it is observed that the existing literature did not provide any study very close to the effect of employee commitment to QMS implementations, most of the research focuses on QMS concepts and principles rather than the implementations and therefore thisstudy add value to the existing literature by providing empirical evidence.On the other hand, the management of quality is an important strategic issue for health care organizations because of enforcing government regulations regarding health care quality, and government health policies(Schalk and Dijk2005). Surprisingly, inhealth sector of Ethiopiaespecially in

pharmaceutical industry,there is limited research related to commitments of the human resource which was supposed to be critical for effective quality management implementations.As the industry need technical staff from its nature there should be adequate investigations about the employee's attitude towards their organizations, how the commitments have been influenced and the practical effects of employees' commitment in the effective quality management implementations.

From the manuals developed by the Agency in the recent five years, Even though EPSA'S leadership believe that QMS is one of the curtail improvement initiatives selected to transform the supply chain practices of the Agency, the implementation takes too long time,the agency leadership gets difficult of effective implementations and scale up to all hubs, there is slow scale up contrary to the efforts exerted by different consultants bothfrom local and international.

The quality policy manual of the agency indicated that QMS implementations startedeffective January 9, 2018 in Central EPSA and two selected hubs(Adama hub&Hawassa hub) and to include all the existing branches in the scope of QMS implementation within 2 yearsbut, the scale up takes beyond the planned implementation year even though International and local consultants are on boardeven prior to starting the implementations, the commitment is somewhat enhanced during the training times and technical assistance times, while it is turned back to its routine supply chain operations after some times in each of the piloted hubs.

There is high turnover of experienced employees, demotivation and complaining about working conditions and incentive package frequently, higher resistance to improvement initiative, are main reason related to quality improvements which implies on the other side employee's commitment is a missing part.In the Agency's documents, it is indicated in general

terms that, there are some gapsrelated to employee's commitment such as: lack of motivation, lower employee's commitment, high professional employee's turn over, etc. but the effect of employees' commitment on the continual improvement initiatives, including the Quality management systems are not well studied. Due to these, In EPSA, the employee's commitment is not clearly understood,and the commitment level is not area of focus most of the times, and the effect of employee's commitment on the QMS is unknown, and the implementations of QMS are not properly examined yet. This study triedto address these areas. Therefore, the purpose of this study is to investigate the kinds of employees' commitments, identify relationship between employee's commitment models and Quality management system implementationsand finally, identify effect of employees' commitment upon the Quality management system implementationswhich ultimately leads to organizational effectiveness,in the case ofEthiopian Pharmaceutical Supply Agency.

1.3. Research Questions

Based on the review of literature and the conceptual framework the following research questions were proposed in this study:

1. What are the association of employee commitment and quality management systems implementationin the Ethiopian Pharmaceutical Supply Agency?
2. What is the effect of Affective Commitment on quality management systems implementation in the Ethiopian Pharmaceutical Supply Agency?
3. What is the effect of Behavioral Commitment on quality management systems implementation in the Ethiopian Pharmaceutical Supply Agency?
4. What is the effect of Cognitive Commitment on quality management systems implementationin the Ethiopian Pharmaceutical Supply Agency?
5. What kind of employee's commitment dimensions are observed in the QMS practice of Ethiopian Pharmaceutical Fund& Supply Agency?

6. What is the extent of commitment of the employees' and to what extent QMS practices are implemented in the Ethiopian Pharmaceutical Fund& Supply Agency?

1.4. Objective of the Study

1.5.1 General Objectives

The general objective of the study was to investigate the effect of Employee's commitment towards quality management systems implementations in Ethiopian Pharmaceutical Fund& Supply Agency.

1.5.2 Specific Objectives

The specific objectives of this study were as given below:

1. To examine the effects of employee'scommitment on Implementation of quality management systems the Ethiopian Pharmaceuticals Supply Agency.
2. To examine the effect of Affective Commitment on quality management systems implementation in the Ethiopian Pharmaceutical Supply Agency?
3. To examine the effect of Behavioral Commitment on quality management systems implementation in the Ethiopian Pharmaceutical Supply Agency?
4. To examine the effect of Cognitive Commitment on quality management systems implementation in the Ethiopian Pharmaceutical Supply Agency?
5. To identify the kind of employee's commitment dimensions observed in the QMS practice of Ethiopian Pharmaceutical Fund& Supply Agency.
6. To identify the extent of commitment of the employees' and to what extent QMS practices are implemented in the Ethiopian Pharmaceutical Fund& Supply Agency?

1.5. Scope of the Research

This study was intended to focus on the effect of employee's commitment on quality management systems implementations in the pharmaceutical sector with a particular reference to the Ethiopian PharmaceuticalSupply Agency.

This studyapplied the conceptualization and measurement for Employee commitment to quality by Paul R. Jackson (2004)which had been developed on the Three Component Model of Employees Commitment to the Organization (TCM). The study consideredpeople-oriented view ofthe principles ofquality managementsystems by focusingon employee's engagement to assess; the extent to which QMS has been implemented and effect of employee'scommitment on quality management systems implementations, what kind of employee's commitment dimensions are in the QMS practice of Ethiopian PharmaceuticalSupply Agency will be reviewed based on human capital viewpoint.

Geographically, the research wasdelimited to Central EPSA and selected EPSAhubs (Adama hub &Hawassa Hub) which had started QMS implementations in the first phase. A sample of senior level specialists, line managers, senior officers and underwriters werebe involved in the study.

Methodologically, the study applied mixed research approach and explanatory research design because to create clarity on the effect of employee commitmenton QMSI and to triangulate the perspective of the respondents by mixed methods.

1.6. Limitation of the Study

The study focused on the effect of employees' commitment on quality management systems implementations. There are multiple factors which can influence quality management implementation on top of employee commitment and also there deferent thoughts to human

resources as well as Quality management systems different from people oriented view, which leads the researcher to experience various limitations in the course of study and other perspectives of Quality management; the Lack of research studies and unavailability of sufficient current empirical literaturein the service industry which is related to this topic insidecountry are other constraints. This problem negatively influenced the development of the research instruments and methodologies for the study. The researcher was tried to overcome these problems by reviewing the existing limited literature to the possible extent and by discussing with experienced researchers including the advisors. The research had not addressed the generalist viewpoints in HR management practices, because it is infant idea in the health sector practices of the developing countries.

1.7. Significance of the study

The outcome of the study is believed to provide guidance to the employer of Ethiopian Pharmaceuticals Supply Agency. Management at different level and employees of Ethiopian Pharmaceutical Supply Agency may have understanding about factors affecting employees' commitment and effects of employees' commitments onquality management systems implementations. Moreover, there is lack of studies concerning effect of employees' commitment on quality management systems implementations in the pharmaceutical supply chain of Ethiopia. Thus, this study had generated critical information on employee commitment and give hint to the management for further implementation of quality management systems and by giving a better understanding on the work environment of employees for Ethiopian Pharmaceutical Supply Agency, as service industry, particularly as public health supply chain firm. Better Understanding of the employees' commitment and the effect on QMS at EPSA could assist Agency'sleadership with operational strategies to be used to meet organizational goals.

The study will also assist in policy formulation, revision, and implementation towards quality management. In addition, the study will enable other service sectors to understand the concept of quality management to improve their services. In addition, the study will give contribution to the future researchers under the supply chain industry and in the same area of the study of human resource management and will be useful as literature in the area of study.

1.8. Definition of key terms

Quality: the standard of something as measured against other things of a similar kind; the degree of excellence of something; degree to which a set of inherent characteristics of an object fulfills requirements; Fitness for purpose; Conformance to specification or requirement(ISO 9000 Quality Systems Handbook, 2015).

Quality management system:refer to a set of interrelated or interacting elements that organizations use to direct and control how quality policies are implemented, and quality objectives are achieved (ISO 9004).

Total Quality Management (TQM), as a management approach of an organization, is centered on quality, based on the participation of all its members and aiming at long term success (Nyawira&Omondi, 2016).

Employee Commitment:a willingness to exert high levels of effort on behalf of the organization and a definite belief in, and acceptance of the values and goals of the organization (Cooper, 2001).

Affective commitment: refers to the employee's emotional attachment to the organization, the agreement of objectives of the organization and of the individual (Radosavljević, Ćilerdžić,&Dragić, 2017)

Cognitive commitment:refers to employee's identification with the organization's goals and values, and a shared sense of importance of the company's goals. Cognitive dimension refers to the employee knowledge about the organization (Jackson,2002)

Behavioral commitment: refers to employee's active participation in the goals of the organization, and willingness to exert effort towards goal accomplishment (Jackson,2002).

1.9. Organization of the Research Project

This thesis was organized into five chapters. Chapter one had set out background to the thesis. Chapter two present reviewof literature which deals with: definition andconcepts ofemployee's commitment as well as models of employee's commitment, conceptual and theoretical framework,andempirical studies. Chapter Three presents research methodologies employed by the study and chapter four present results with discussion. Finally, chapter five presentconclusion and recommendations.

CHAPTER TWO
LITERATURE REVIEW

Literature review is a body of text that designed to review the critical points of knowledge in theoretical and empirical related literatures of previous studies. The chapter contains concepts and principles of quality management systems, definitions of employee's commitment to organizations, perspectives on employee's commitments, relationship between employee's commitment and quality management systems and finally empirical review and the emanated conceptual frameworkare presented.

2.1. Theoretical Literature Review

2.1.1. Quality and QMS Concepts

Quality is what a product, service, decision, document, piece of information or any output from a process should be and what it is (ISO 9000 Quality Systems Handbook, 2015). To comment on the quality of anything we need references for characteristics and a basis for comparison. By combining the definition of the term quality and requirement in ISO 9000:2000, quality can be expressed as the degree to which a set of inherent characteristics fulfills a need or expectation that is stated, generally implied or obligatory (Hoyle, 1999).

Quality management system refer to a set of interrelated or interacting elements used to direct and control how quality policies are implemented, and quality objectives are achieved (ISO9004). Quality Management Systems is an international standard published by the International Organization for Standardization (ISO).

The application of quality management techniques was widely signaled as primary source of greater business productivity in Japan during 1970s when it becomes popular to contrast North American management to the 'superior' Japanese system (Morrison and Rahim, 1993).In the most TQM literature, there have typically been two types of dimensions mentioned for TQM–

one that is more of a technical nature and the other more of a tacit or intangible nature. The technical elements of TQM may include statistical process control and Ishikawa problem-solving tools. Intangible elements, on the other hand, may come from leadership, organizational skill and culture, executive commitment, open organization, participative team dynamics and empowerment. These two categories have been named “hard” (the technical) and “soft” (the intangible) variables (DanielJime´nez and MicaelaMartı´nez-Costa, July 2009).

2.1.2. Quality Management Principles

A quality management principle is a comprehensive and fundamental rule and belief, for leading and operating an organization, aimed forcontinually improving performance over the long term focusing on customers while addressing the needs of all other stake holders (Nyawira&Omondi, 2016). An integrated quality management approach needs different efforts: top management’s commitment, quality measurement and benchmarking, process management, product design, employee training and empowerment, supplier quality management and customer involvement and satisfaction (Motwani, 2001). Employees must be oriented to the company’s philosophy of commitment to never-ending improvement, be informed of the company’s goals, and made to feel part of a team (Motwani, 2001).

To lead and operate an organization successfully, it is necessary to direct and control it in a systematic and transparent manner. Success can result from implementing and maintaining a management system that is designed to continually improve performance while addressing the needs of all interested parties. Eight quality management principles have been identified that can be used by top management to lead the organizations towards improved performance(AJB,ISO 9000 Standards).

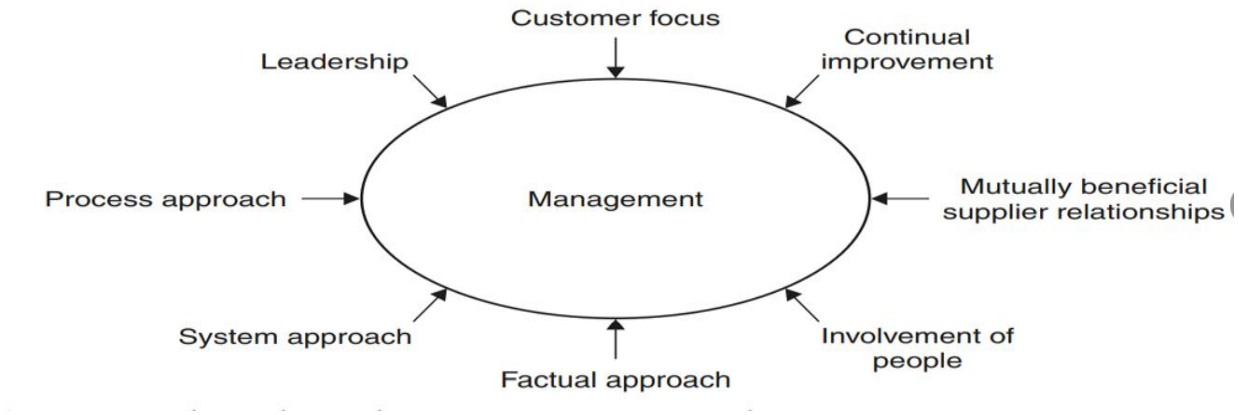


Figure 4: The Eight quality management principles

2.1.3. Quality Management system implementations

QMS serves various purposes which include improving processes, reducing wastes, lowering costs, facilitating, and identifying training opportunities, engaging staff, setting organizational long-term strategies, enhances coordinationto meet customer needs as well as regulatory requirements. QMS also improve effectiveness and efficiency of organization on a continuous basis (Githaiga, 2019).QMS is a managerial philosophy and thus, its deployment does not only rely on the top management but also every employee of a firm. To that effect, commitment reflects the support and involvement of quality by individuals across all spectrums of an organizational hierarchy.

Committed employees are thought to attain clear understanding of the organizational values, goals, strategies, policies, and they are believed to have clear vision regarding the utilization of available resources, along the value chain. Employees' Commitment notwithstanding of the type of organizations whether they produce products or deliver services, employees working in these organizations are regarded as their main resources and the roles

these employees play is highly influential in achieving the objectives of the organizations (EsinSadikoglu&HilalOlcay, 2014). People at all levels are the essence of an organization and their full involvement enables their abilities to be explored for the organization's benefit.Every person has knowledge and experience beyond the job when he or she has been assigned to perform. Some are leaders in the community; some are architects of ISO 9000 Quality Systems. No one is limited in knowledge and experience to the current job they do. This principle means that management should knock this source of knowledge, encourage personnel to contribute and utilize their personal experience. Managers should operate with integrity, and this means involving the people (Hoyle, 1999).

2.1.4. Employees' Commitment to Organizations

Employee commitment has been an important factor to determine the success of an organization. Employee commitment to an organization has acquired increasing demand as it aids the organizations to retain skilled staff and thereby increase in achievement, productivity, and effectiveness. No organization in the current ambitious world can execute at peak levels unless each employee is committed to the objective of organization' and performs as an effective team member. The employment of good employees is demanding but of even extensive significance is the organizations' ability to create a committed workforce (Gilo, 2018).

Employees have a complex relationship with the organization in which they work. Many constructs contribute to this relationship, which include the employees' commitment to the organization. Employees' commitment to the organization impacts business outcomes, efficient operations, turnover rates, and productivity. Employees' commitment to the organization has associatedto the employee's willingness to contribute to the goals of the organization. There exist

several competing and complementary theories about employees' commitment to the organization that have been researched (Timothy, 2018).

Definitions of commitment differ. For example, as an attitude, organizational commitment is most often defined as a strong desire to remain a member of a particular organization, in other words loyalty to the company. According to this definition commitment refers to an individual's psychological bond to the organization, as an effective attachment and identification (Coopey and Hartley, 1991).

2.1.5. Theories of Employees' commitment

Commitment and behavior at work. The meaning of commitment of employees can best be explained using the theory of social exchange. The theory of social exchange is based on an economic model of human behavior, where the interaction processes between individuals are motivated by the desire to increase the rewards and reduce losses. The basic premise of the theory of social exchange is that the relationships that provide more reward than costs contribute to permanent mutual trust and attachment. Furthermore, these social transactions include both material benefits and psychological rewards, including status, loyalty, and approval. For example, the workplace supervisor enables the employees cash rewards, while in return the employee contributes by the personal commitment and expertise (Radosavljevic, Ćilerdžić,&Dragić, 2017)

Both practitioners and scholars have yet to develop a uniform, clear definition of the term employee commitment. The theoretical grounds for the elaborations on employee commitment in work have been developed by psychologists. One of the first scholars who directly delved into the issues of employee commitment was psychologist William, A. Kahn (1990), who believed

commitment was a multi-dimensional term. He claimed that employees can be involved in their work emotionally, cognitively, and physically, given that they can be committed only in one of those three dimensions (Mrówka 2012, p. 7).

Another definition states that: it is a positive, a state of mind satisfying one's desires associated with work that manifests itself by vigor, devotion, receptivity (Schaufeli et al. 2004, p. 74). Commitment is a complex and continuous way of discovery of the methods of increasing employee efficiency. It is a part of employee behavior and is expressed in the willingness to work for the benefit of an organization. A committed employee is a person who focuses on their work, has an enthusiastic attitude towards performing it and achieves or surpasses the business objectives requested from them acting to the best interest of their company (Mrówka 2010, p. 8; (Marczak, 2014).

2.1.6. Dimensions of Employee Commitment

Hall, Scheider, and Nygren dealt more with the issues that lead to shared values. They define commitment as "the process by which the goals of the organization and those of the individual become increasingly integrated or congruent. The most widely used definition of organizational commitment in current research is that of Porter, Steers, Mowday, and Boulian (1974), who developed the Organizational Commitment Questionnaire (OCQ). They defined organizational commitment as the strength of an individual's identification with and involvement in a particular organization, characterizing it by three psychological factors: desire to remain in an organization, willingness to exert considerable effort on its behalf, and belief in and acceptance of its goals and values. Such categorization fits well with what has become known as **affective commitment.**

O'Reilly and Chatman (1989) also define employee commitment as "a psychological attachment felt by the employee for the organization. The following definition assists in capturing the essence of the Porter et al dimensions: 'a willingness to exert high levels of effort on behalf of the organization and a definite belief in, and acceptance of the values and goals of the organization'. Coopey and Hartley (1991) Commitment can be viewed and defined in terms of attitude or behavior. Therefore, it is not surprising that two widely known views of commitment relevant to work organizations have emerged: **behavioral or continuancecommitment** and attitudinal or affective commitment (Cooper, 2001).

According to Meyer and Allen (1991), organizational commitment is reflected in at least three general topics: active association with the organization, the predictable costs of leaving the organization and the obligation to remain in the organization. These three approaches are called **affective, continual, and normative commitment**. Common to these three approaches is the attitude that the commitment is a psychological state characterized by the relationship of employees to the organization and implies a decision to continue the work in it. These psychological states also have different implications for the behavior related to the workplace.

2.2. Empirical Literature Review

2.2.1 Critical success factors for QMS implementation

Though, few studies have focused on understanding the reasons of unsuccessful and ineffective QMS implementation, an organization want to implement QMS must adopt all the necessary requirements specified in the quality standards. However, many research studies have found implementation of QMS to be challenging (Chow-Chua et al., 2003). Oakland (1993) defined critical success factors as elements that need to be examined and categorized to ensure

successful implementation of a system. Based on QMS implementation experiences from the literature, most of the critical success factors and barriers are classified in two separate categories: critical success factors and barriers during QMS planning phase, and critical success factors and barriers during QMS implementation phases (Avinash, Prakash, andRokke,2018).

In the perspectives of people-related view of QMS, Morrison and Rahim (1993) noted succinctly that effective management of human resources is the core ingredient of success in QMS. This statement is further supported by both Yang (2006) and Jimenez and Costa (2009), whose empirical research revealed that synergy between HRM and QMS practices yielded positive tangible and intangible results. The people related QMS elements used in the above studies & more other research included teamwork, reward and recognition, customer focus, organizational trust, organizational culture, training and education, communication, continuous improvement, management commitment, employee involvement, and empowerment. Thus, the six people related QMS practices selected in relation to employee outcome focus are: leadership, training and development, employee empowerment, employee involvement, teamwork, and reward and recognition (Yue, Ooi andKeong, 2010)

2.2.2 Models of Employee's Commitment and quality management systems

The person organization fit concept (P-O fit) exists when the values of the organization need to match to the values of the individual. When there is a close match, the employee is less likely to leave the organization (Coldwell et al., 2008; Allen et al., 2009). Kristof (1996) defined P-O fit as: the compatibility between people and organizations that occurs when; at least one entity provides what the other needs, or they share similar fundamental characteristics or both

(EdipSabahattin, Sokmen,Biyik, 2016). Most research carried out in this area, has confirmed that a high level of employee's commitment has a positive impact on organization's business performance in general, including an increase in productivity and efficiency as well as better relations with customers (Rypina, 2009). Employees should have clear information about the company's strategy and its long- and short-term objectives, they also should know company value and its expectations toward them. Involved employee is one who is willing to act on its own initiative, even at the expense of his own convenience, treating any changes as opportunities (Brzeziski&Baka, 2015)

The study by (Yue,Ooi, and Keong, 2011) proposed a model to analyze the degree of leadership, level of training and development, degree of employee empowerment, extent of employee involvement, level of teamwork as well as the impact of reward and recognition in increasing the job satisfaction and turnover intention among the employees. These are the crucial factors that synergize employees' work outcomes with organizational excellence that leads to sustainable and successful TQM implementation. It is expected that positive perception of employees towards people-related TQM practices will bring about higher job satisfaction and lower turnover intention (Yue, Ooi and Keong 2011).

Cheng and Chan (1999) used employee commitment to quality by the Quality Motivation Survey to measure employee perceptions of the motivating effect of different aspects of TQM. The implied model in their studies is that management HR practices and work design are factors which increase motivation, and motivation in turn leads to improved performance (both quantity and quality) (Jackson, 2002). Similarly, Waldman (1994) has argued that system factors such as reward systems and leadership processes and job design have an impact on work performance through aspects of motivation. He proposed that TQM emphasizes extra-role behaviours and that

“internal work motivation derived from enriched work will lead to extra-role performance behavior, including engaging in teamwork and continuous improvement activities” (Jackson, 2002).

The starting point for defining key components of employees’ commitment to quality is the psychological literature on the construct of organizational commitment. Although severaltaxonomies of organizational commitment have been proposed, the most influential analysis is that of Porter et al. (1974) who defined three elements: (1) identification; (2) involvement; and (3) loyalty. They incorporated these elements in the widely used Organizational Commitment Questionnaire (Mowday et al., 1979; Porter et al., 1974) and Meyer and Allen (1984) developed them further in distinguishing the core construct of affective commitment from what they called continuance commitment, which reflects constraints on the individual’s opportunities to move to another organization. This attitudinal construct of commitment implies a composite of **affective, cognitive, and behavioral components** as indicators of employee commitment to organizational values (Mishra and Spreitzer, 1998; Reichers, 1985).

Affective indicatorsinvolve pride in affiliation to the company’s goals, and feelings of satisfaction derived from involvement with the company’s goals. **Cognitive indicators**involve identification with the organization’s goals and values, and a shared sense of importance of the company’s goals. **Behavioral indicators**involve active participation in the goals of the organization, and willingness to exert effort towards goal accomplishment, which was developed to models of the role of quality commitment within total quality program.

Securing employees' affection and subsequent, demonstrated commitment is a rising concern emerging in organization development (OD) and human resource development (HRD) practice. Increasingly, leaders in modern organizations are tasked with attracting, cultivating, and retaining talent with the skills and capabilities to maintain a competitive advantage in their industries(Zachary A. &Mercurio,2015).According to Meyer and Allen (1991 p.75) it is more probably due to it being psychologically orientated that affective commitment will have the biggest influence on an 'employee's organization-relevant behavior'. Employee affective commitment has been found to be associated the most with higher levels of support behavior, compared to the other two dimensions of commitment (Herscovitch and Meyer, 2002).

Many scholars, such as Deming (1982), considered that the success of a TQM implementation is greatly dependent on having organizational members with a high level of affective commitment to change initiatives. For change initiatives, such as one introduced via TQM implementation to be achievable, organizational members need to have a high level of affective commitment to change (Meyer et al., 2007; Shum et al., 2008). However, only a few empirical studies have tested the influence individual commitment has on TQM implementation.

The study by (Haffar M, Al-Karaghouli, Irani Z et al. 2019) examined the mediating role of individuals affective commitmentto change initiatives in the relationship between individual readiness to change components and TQM implementation. Understanding this complex relationship among TQM, individual readiness, and commitment to change helps to provide sound managerial practice to improve the success of TQM induced change effort(Haffar M, Al-Karaghouli, Irani Z et al. 2019)

2.3. Research Hypothesis

In identify relationship of employee's commitment and quality management systems and the effects of employees' commitment upon quality management systems implementations based on the objective of the study, theoretical and empirical literatures were reviewed. Hence, the results from the literature review were used to establish expectations for the relations of the two variables (independent and dependent variable). Therefore, with having theoretical and empirical reviews‟ in mind the following hypotheses were developed.

Hypothesis:

H1: There will be significant relationship between overall employees' commitment and organizational quality management systems implementations in the study area.

H2: Affective commitment has significant effects on quality management systems implementations in the study area.

H3: Behavioral commitment has significant effects on quality management systems implementationsin the study area.

H4: Cognitive commitment has significant effects on quality management systems implementations in the study area.

2.4.Conceptual Framework

Organizational commitment has been conceptualized and measured in various ways. The following conceptual framework was developed based on literature review. This conceptual framework depicts the independent variables and the dependent variable based on the work of Paul R. Jackson (2004),Employee commitment with its perspective on commitment to quality.

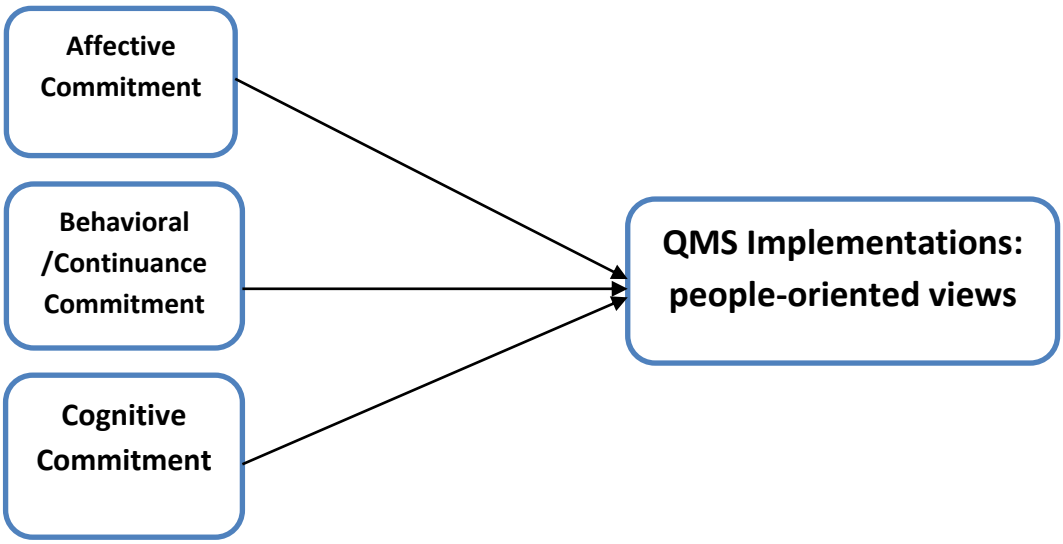


Figure 5: Conceptual Framework of the research

CHAPTER THREE

RESEARCH METHODOLOGY

The objective of the study was to examine the effect of employee's commitment on quality management system implementations in the case of Pharmaceuticals SupplyAgency (EPSA).To achieve the research objective, the methodology followed was discussed in this chapter which includes the background of the organization, research approach, research design, population and sample size, the data sources and types, and data collection instruments used for data collection and analysis.

3.1. Research Setting

The data was collected from employees of Central EPSA located in the capital Addis Ababa, Adama Hubwhich is located in Adama city, Hawassa Hub which is located in Hawassa city. The Agency has six clusters, and the head office of the Agency is found in Addis Ababa, Ethiopia. The agency had developed the scope of implementing QMS before three years, and started QMS implementation in Central EPSA, Adama cluster, Hawassa cluster in the first phase.

3.2. Research Approach

Depending on the nature of the research problem and the research perspective, researcher was guided by mixed research design that is qualitative and quantitative approaches. Qualitative approach was concerned with subjective assessment of opinion, attitude, and behavior of the employees in EPSA institutions and quantitative approach wasused to analyze the data that was collected by questionnaires based on the selected model.Besides, this mixed research approach seeks a pragmatic knowledge claim philosophy that consists of both quantitative and qualitative

approaches. Thus, to achieve the objectives stated in the previous section, bearing in mind the nature of research problem, this study employed mixed research approach.

3.3. Research Design

The study used both descriptive and explanatory research design. Accordingly, in descriptive method the study was focused on the determination of the frequency with which an event occurs and how variables are related in a particular context. Accordingly, in explanatory approach the study was concerned with determining the effect and relationships among variables. An adequate description of the variables and the extent to which the factors of employees' commitment influence on implementation of quality management systems in EPSA is revealed.For qualitative aspect, phenomenology research design methods which focuses on the lived experience of individuals using in-depth personal interview data collection method by using semi-structured interview guide was deployed. The qualitative study was conducted on the selected Agency's immediate supervisors or line managers working in central EPSA and two selected EPSA hubs, to deeply investigate their experience and opinions to understand the effect of employee's commitment towards QMS implementations.

3.4. Population and Study Sample

This study was entitled effects of employees' commitmenton Quality management system implementations in the case of EPSA; Central EPSA, Adama Hub, Hawassa Hub. The Agency has six clusters, and the head office of the Agency is found in Addis Ababa, Ethiopia.The agency had developed the scope of implementing QMS before three years, and started QMS implementation in Central EPSA, Adama cluster, Hawasa cluster as first phase and to expand by practicing and learning approaches to the other hubs. This study was conducted on CentralEPSA,

Adama cluster, Hawasa cluster,which were in the first phase of QMS implementation, which were selected as pilot by the Agency.

The study was conducted from December 1, 2020, to April 30, 2021. The total number of the population in the EPSA Center and hubs was 952.which was sample frame of the study. Thus, the researcher had used Strata random sampling method to get representative fromCentral EPSA and form the two selected hubs.

3.4.1. Target population

The target population was the employees of PharmaceuticalsSupply Agency of Head office and the two hubs which have 952 staffs (from Central EPSA and the two selected hubs). The employees who were encompassed in the study include all employees who are permanently employed.

3.4.2. Sample size and Sampling Techniques

According to Field (2005), whenever it is possible to access the entire population, it is possible to collect data from sample and use the behavior within the sample to infer things about the behavior of the population. According to Kothari (2004) sample size should be optimum in which it fulfills the requirement of efficiency, representativeness, reliability, and flexibility. The number depends on the accuracy needed, the population size, population heterogeneity and resources available. So, the sample size should be determined by using statistical formula. Of route, different authors use different formulas to determine the sample size of the study. In this study, the formula set by Yaman's 1967 was used to determine the sample size, which is reliable when the population size is known, by using the Yaman's sample formula for calculations of sample sizes. The conventional confidence level of 95 percent was used to ensure a more accurate result and margin of error was 5 percent (0.05).

$$n = N / (1 + Ne^2)$$

$$n = \frac{N}{1 + (N)e^2} n = \frac{952}{1 + (\ 952\ )(0.05)^2} \approx 282$$

Where,**N** = Total population

n = sample size

e = level of precision

Table 1: Sample Distribution plan.

EPSA Hubs	Study Population	Sample size
Central EPSA	**630**	**187**
Hawassa Hub	**140**	**41**
Adama Hub	**182**	**54**
Total	**952**	**282**

3.5. Data Sources and Types

The study data was collectedfrom the primary and secondary data sources. The primary data will be employees and the management bodies from EPSA Head Office and clusters. The source for the secondary data was official documents, Manuals, books, websites and other written articles by scholars.

3.5.1. Primary Sources of Data

Questionnaire: one of the primary sources of data was obtained by questionnaire with close ended questions (to view thestaff's perspective). The questionnaire was used to measure variables that are uniquely important to employees working at different levels of the organization.

Semi structured Interview: the second primary source of data will be obtained by interview. In-depth semi structured Interview will be used to view the key factors of employees' commitment which have effect on implementation of quality management systems based on people-oriented view, especially for the immediate supervisors/process team leads.

3.6. Data Collection Instruments

The study data wascollected mainly from primary data sources by deploying four data collectors who are experience professionals in pharmaceutical sector. To collect the primary data the study had used questionnaire as instrument of data collection. It was organized in to two major parts, the first part deals about personal characteristics of respondents such as, sex, position, age, educational level, work experience in the agency and so on, and the second part deals with the issue of employee's commitment on continual process improvement practices, Quality management system implementations (QMSI).

The questions related to employees' commitment on Quality management system Implementation (QMSI) of the organization was developed from below related research articles and journals to find out standard questions. The researcher alsoadaptedquestions to measure variables based on the research problem area identified. The Likert-type scale method was used to measure from the range of responses: strongly disagree, disagree, Neutral, Agree, and strongly agree, with a numeric value of 1-5, respectively. The usage of this scaling methodensured that the research study illustrated the ability to assess the responsesand measure the responses quantifiably. The following table summarizes the source of the items used to measures the study variables, number of items in the scale and their alpha results.

Table 2: Summary of Measures.

No.	Study Variables	Source of Items (scale or Instrument source)	No. of Items in the Scale
1	Quality Management Systems, people related HR practices,	Afeliga, E. (2017) 'Assessing the Practices of Total Quality Management Principles at Frontiers Printing and Publishing Limited' Volume 6, issues 4, pp-6, DOI: 10.4172/2169-0316.1000233). Jing-Wen Yue, Keng-Boon Ooi and ChoongCheeKeon (2011) 'The relationship between people-related total quality management (TQM) practices, job satisfaction and turnover intention: A literature review and proposed conceptual model' Vol. 5(15), pp. 6632-6639	27
2	Affective Commitment	Jackson, P. (2004) 'Employee commitment to quality Its conceptualization and measurement' International Journal of Quality & Reliability Management, Vol. 21 No. 7, pp. 714-730	4
3	Behavioral Commitment	Jackson, P. (2004) 'Employee commitment to quality Its conceptualization and measurement' International Journal of Quality & Reliability Management, Vol. 21 No. 7, pp. 714-730	5
4	Cognitive Commitment	Jackson, P. (2004) 'Employee commitment to quality Its conceptualization and measurement' International Journal of Quality & Reliability Management, Vol. 21 No. 7, pp. 714-730	4

3.7. Reliability and Validity

To reduce the possibility of getting the wrong answer, attention waspaid to the reliability and validity of the questionnaire. A measure is valid if it measures the concept we are

attempting to measure. It is reliable if it consistently produces the same result (Aasland.A, 2008). One of the tools that measure validity is correlation.

Validity is the degree to which a measure accurately represents what it is supposed to. It is concerned with how well the concept is defined by the measure(s). Therefore, this study was tried to addressvalidity through the review of literature and adapting instruments used in previous research and the questionnaire was reviewed and inspected by experienced experts in the study area.

Cronbanch's alpha reliability test was done and for each scale. To check the reliability of the data, Cronbach‟s Alpha was calculated for each variable. It is good reliability measure of internal consistency of items on the scale. As below table confirms that Cronbach's alpha test result of the variablesis larger than 0.7 which is known to be satisfactory.

Table 3: Cronbach's Alpha Results of the variables.

No.	Study Variables	No. of Items in the Scale	Chronbach's Alpha Results
1	Quality Management Systems, people related HR perspectives	27	0.921
2	Affective Commitment	4	0.802
3	Behavioral Commitment	5	0.780
4	Cognitive Commitment	4	0.760

Note: The αis good, greater than 0.7 and less than 0.9, the transformed measures used are reliable.

3.8. Data Analysis

The data obtained through questionnaire was first edited for their completeness, categorized, registered. The data was analyzed using descriptive and inferential statistical analysis techniques first, using frequencies, mean and standard deviation. Further, using inferential statistics techniques, specifically correlation analysis and regression analyses were

applied to verify the relationships between the dependent variable and the independent variables. The study used SPSS software package in the quantitative analysis. The Qualitative data was analyzed by summarizing ideas of word impression and the ideas of the informants were thematized for analysis and through the content review analysis of the tests were conducted.

3.9. Ethical considerations

Ethical issues are very important in research these days. Ethical emerged from value conflicts. Each decision made in research involves a potential compromise of one value for another. Researchers must try to minimize risks to participants, colleagues and society while attempting to maximize the quality of information they produce (David F. Gillespie, 1989).

For Ethical purpose, Formal letter were obtained from Addis Ababa University, school of Commerce. Participants and firms were assured that their name will not be stated, data will be kept confidential and used only for research purpose.The respondents were also asked first fortheir verbal consent to respond to the questionnaire, after their willingness to participate was assured, respondents who were not present during data collection time were asked by returning again until three times and if they were not present still, they were considered as non-respondent.

CHAPTER FOUR

RESULTS AND DISCUSSION

In this chapter, the researcher attempted to analyze and examine the effects of employee's commitment and QMS Implementations in the case of Ethiopian Pharmaceuticals Supply Agency (EPSA). The quantitative data analysis was performed by using SPSS software Version 22. The demographic analysis was conducted using frequencies and percentages. Descriptive analysis was conducted to examine the mean and standard deviation of the dependent and independent variables. Nonparametric Correlations using bivariate analysis of the Variables using Kendall's tau_bcorrelation was used to explain the relationships or the correspondence of independent variables with the dependent variable. Regression analysis was also used to explain how much the selected employee's commitment variable had effects on the dependent variable (QMS Implementation). And finally, the qualitative information was analyzed using content analysis method.

4.1. Return Rate

In the quantitative survey, from a total of 282 questionnaires distributed 269 were completed and collected from Ethiopian Pharmaceuticals Supply Agency (EPSA): Central EPSA, Adama Hub, and Hawassa Hub. There was a response rate of 95.4% for usable and properly filled and which can be taken as valid for further analysis.

4.2. Demographic Background of the Respondents

All the obtained data have been included in the analysis. Out of 269 respondents 75.8% were male respondents and female respondents covered the remaining 24.2%. The educational levels of the respondents are mainly degree (52.4%) which is followed by master holders (26.0 %), who were involved directly or indirectly in supply chain management practices. The highest work experience of the respondents is within the range of 5–10-years which work in the pharmaceutical sector (44.6 %) followed by 11–15-year work experience (26.8 %). The results of the personal factors of the respondents are presented in the table 4 below.

Table 4: Demographic characteristics of the respondents.

Personal Factors	Categories	Frequency	Percent	Valid Percent	Cumulative Percent
Age	20-30	59	21.9	21.9	21.9
	31-40	104	38.7	38.7	60.6
	41-50	71	26.4	26.4	87.0
	>50	35	13.0	13.0	100.0
	Total	269	100.0	100.0	
Gender	Male	204	75.8	75.8	75.8
	Female	65	24.2	24.2	100.0
	Total	269	100.0	100.0	
Work Experience	<5	48	17.8	17.8	17.8
	5-10	120	44.6	44.6	62.5
	11-15	72	26.8	26.8	89.2
	>15	29	10.8	10.8	100.0
	Total	269	100.0	100.0	
Educational Level	Below Diploma	19	7.1	7.1	7.1
	Diploma	39	14.5	14.5	21.6
	Degree	141	52.4	52.4	74.0
	Masters	70	26.0	26.0	100.0
	Total	269	100.0	100.0	

Source: Own survey 2021

4.3. Item Analysis of the study Variables

The result of Percentage Analysis of the transformed data for the study Variable Affective commitment are presented in table 5 below.

Table 5: Percentage frequencies of Affective commitment

Affective commitment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.25	1	.4	.4	.4
	1.80	1	.4	.4	.7
	2.00	15	5.6	5.6	6.3
	2.20	2	.7	.7	7.1
	2.25	9	3.3	3.3	10.4
	2.30	1	.4	.4	10.8
	2.40	2	.7	.7	11.5
	2.50	14	5.2	5.2	16.7
	2.60	1	.4	.4	17.1
	2.70	1	.4	.4	17.5
	2.75	19	7.1	7.1	24.5
	2.80	7	2.6	2.6	27.1
	2.90	1	.4	.4	27.5
	3.00	26	9.7	9.7	37.2
	3.20	2	.7	.7	37.9
	3.25	23	8.6	8.6	46.5
	3.50	33	12.3	12.3	58.7
	3.75	17	6.3	6.3	65.1
	3.80	1	.4	.4	65.4
	4.00	37	13.8	13.8	79.2
	4.20	1	.4	.4	79.6
	4.25	15	5.6	5.6	85.1
	4.50	24	8.9	8.9	94.1
	4.60	2	.7	.7	94.8
	4.75	5	1.9	1.9	96.7
	5.00	9	3.3	3.3	100.0
	Total	269	100.0	100.0	

The result of Percentage Analysis of the transformed data for the study Variable Behavioral commitment are presented in table 6 below.

Table 6: Percentage frequencies of Behavioral commitment

Behavioral commitment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	8	3.0	3.0	3.0
	2.20	1	.4	.4	3.3
	2.30	3	1.1	1.1	4.5
	2.40	1	.4	.4	4.8
	2.50	7	2.6	2.6	7.4
	2.60	6	2.2	2.2	9.7
	2.75	2	.7	.7	10.4
	2.80	8	3.0	3.0	13.4
	3.00	15	5.6	5.6	19.0
	3.20	8	3.0	3.0	21.9
	3.40	8	3.0	3.0	24.9
	3.50	3	1.1	1.1	26.0
	3.60	42	15.6	15.6	41.6
	3.80	19	7.1	7.1	48.7
	4.00	58	21.6	21.6	70.3
	4.20	35	13.0	13.0	83.3
	4.40	4	1.5	1.5	84.8
	4.50	2	.7	.7	85.5
	4.60	2	.7	.7	86.2
	4.80	16	5.9	5.9	92.2
	5.00	21	7.8	7.8	100.0
	Total	269	100.0	100.0	

The result of Percentage Analysis of the transformed data for the study Variable Behavioral commitment are presented in table 7 below.

Table 7: Percentage frequencies of Cognitive commitment

Cognitive commitment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.4	.4	.4
	2.00	5	1.9	1.9	2.2
	2.50	15	5.6	5.6	7.8
	2.80	2	.7	.7	8.6
	3.00	17	6.3	6.3	14.9
	3.25	17	6.3	6.3	21.2
	3.40	1	.4	.4	21.6
	3.50	29	10.8	10.8	32.3
	3.75	30	11.2	11.2	43.5
	4.00	37	13.8	13.8	57.2
	4.25	16	5.9	5.9	63.2
	4.50	21	7.8	7.8	71.0
	4.75	25	9.3	9.3	80.3
	5.00	53	19.7	19.7	100.0
	Total	269	100.0	100.0	

4.4. Descriptive Statistics for Variables of the Study

The descriptive statistic result of the respondents for the Commitment Variable and dependent variables from the perception of the skilled professionals in the Ethiopian Pharmaceuticals Supply Agencyare presented below. These factors have the interpretation based on the descriptive analysis result that having a mean statistic value somewhat above the non-discriminating value on the likert scale implies that the level of commitment is not too high, but it is observed to some extent, and there are also QMS implementations, but it is also at moderate level.

Table 8: Descriptive statistics of the study Variables.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Affective Commitment(A)	269	1.25	5.00	3.4980	.80428
Behavioral Commitment(B)	269	2.00	5.00	3.7799	.72618
Cognitive Commitment(C)	269	1.00	5.00	4.0682	.75729
Employee Commitment (EC)	269	1.55	5.00	3.7820	.59379
QMS Implementations (QMSI)	269	1.66	4.22	3.2049	.52256
Valid N (listwise)	269				

Table 9: Descriptive statistic results of QMSI parameters.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Leadership (L)	269	1.00	5.00	3.2528	1.00803
Employee Participation &Teamwork (EPT)	269	2.14	4.29	3.1910	.60550
Recognition and reward (RR)	269	1.00	4.71	2.4270	.87015
Education and training (ET)	269	1.50	4.83	2.9078	.70481
Valid N (listwise)	269				

4.5. Correlation analysis

Bivariate analysis of the Variables using Kendall's tau_bCorrelation showed that all of the independent variables have significant non-parametric correlation which implies that there are significant relationships or correspondence of independent variables with the dependent variable. Employee's affective commitment(A) (p=0.000), employee's behavioral commitment(B) (p=0.009) and employee's cognitive commitment(C) (p=0.000) have significant correlation with Quality management system implementations (QMSI). There are positive and significant correlations between employee's commitment to QMSI in the organizational operations of EPSA. The result of the Kendall's tau_bCorrelation is presented on the table 15 on the Annex part of this paper.

Bivariate analysis of the Variables using Kendall's tau_b Correlation showed that all the independent variables have significant non-parametric correlation which implies that there are

significant relationships or concordance of independent variables with the dependent variable. Employee's affective commitment (A) (*p=0.000&Correlation Coefficient=0.358),* employee's behavioral commitment(B) (*p=0.009& Correlation Coefficient=0.113*) and employee's cognitive commitment(C) (*p=0.000& Correlation Coefficient=0.303*) have significant correlation with Quality management system implementations (QMSI). As literatures recommends:

- |τb||τb| = 0.07 indicates a weak association,
- |τb||τb| = 0.21 indicates a medium association,
- |τb||τb| = 0.35 indicates a strong association.

The Kendall's tau_b correlation was used to examine the monotonic relationsbetween the variables. The results the correlations showed that there are positive and significant correlations between employee's commitmentto *quality management system implementations* (QMSI) in the organizational operations of EPSA. There was a strong, positive correlation between Affective commitment(A) and *quality management system implementations* (QMSI) *(τ_b=0.358. p=0.000),* Weaker, positive correlation between Behavioral commitment(B) and *quality management system implementations* (QMSI) *(τ_b=0.113, p=0.009),*a near to a strong, positive correlation between Cognitive commitment(C) and *quality management system implementations* (QMSI) *(τ_b=0.303, p=0.000),*and a more than medium, positive correlation between overall employee's commitment (EC) and *quality management system implementations* (QMSI) *(τ_b=0.267, p=0.000).*The correlation coefficient of these variables implies that there is monotonic relationship between all the commitment variables and *quality management system implementations* (QMSI), affective commitment dimension have the biggest *Correlation*

Coefficient. This in in accordance with Many scholars, such as Deming (1982), who considered that the success of a TQM implementation is greatly dependent on having organizational members with a high level of affective commitment.

4.6. Regression Analysis

Since the data is not normally distributed, we cannot run the commonly used linear regression analysis, rather we run normality test and then regression analysis using Generalized Linear Model was conducted to examine how the independent variables explain the dependent variable:

Normality test

To go for further statistical regression analysis with the independent and dependent variables, we need to also check the data distribution assumptions. Therefore, for this purpose Normality test is one of the methods used in addition to the Histograms and dataQ-Q Plots (Figure 3). The following table shows the Test of Normality of the data obtained for the Variables in the study.

Table 10:Test of Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
A	.106	269	.000	.977	269	.000
B	.142	269	.000	.950	269	.000
C	.128	269	.000	.923	269	.000
EC	.075	269	.001	.982	269	.002
QMSI	.067	269	.006	.986	269	.008

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
logA	.117	269	.000	.954	269	.000

logB	.187	269	.000	.908	269	.000
logC	.141	269	.000	.863	269	.000
logEC	.061	269	.017	.949	269	.000
logQMS	.087	269	.000	.966	269	.000

a. Lilliefors Significance Correction

Note: Both Kolmogorov-Smirnov and Shapiro-Wilk tests are matched, and shows that the data for our measure variables are non- Normally distributed.

Generalized Linear Model:

Table 11: Model Information.

Model Information

Dependent Variable	QMSI
Probability Distribution	Gamma
Link Function	Log

Table 12: Omnibus Test.

Likelihood Ratio Chi-Square	df	Sig.
112.282	13	.000

Dependent Variable: QMSI

Model: (Intercept), Age, Gender, WorkExperience, EducationalLevel, A, B, C

a. Compares the fitted model against the intercept-only model.

Note: The omnibus test is a likelihood-ratio chi-square test of the current model versus the null (in this case, intercept) model. The significance value of less than 0.05 indicates that the current model outperforms the null model.

Table 13:Tests of Model Effects.

Source	Type III		
	Wald Chi-Square	df	Sig.
(Intercept)	222.536	1	.000
WorkExperience	14.629	3	.002
EducationalLevel	13.861	3	.003
A	22.967	1	.000
B	4.574	1	.032
C	16.922	1	.000

Dependent Variable: QMSI

Model: (Intercept), Age, Gender, WorkExperience, EducationalLevel, A, B, C

Note: To determine whether the association between the response and each term in the model is statistically significant, compare the p-value for the term with significance level to assess the null

hypothesis. The null hypothesis is that there is no association between the term and the response. Usually, a significance level (denoted as α or alpha) of 0.05 works well. The p-value is a probability that measures the evidence against the null hypothesis. Lower probabilities provide stronger evidence against the null hypothesis. The GLM regressions showed that age and gender do not have as such association with the outcome variable.

Table 14: Parameter Estimates.

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test		
			Lower	Upper	Wald Chi-Square	df	Sig.
(Intercept)	.825	.0669	.694	.956	151.794	1	.000
[WorkExperience=1]	-.042	.0385	-.118	.034	1.189	1	.276
[WorkExperience=2]	-.059	.0331	-.124	.005	3.222	1	.073
[WorkExperience=3]	-.124	.0374	-.197	-.051	11.042	1	.001
[WorkExperience=4]	0[a]	.	.	.	.	.	.
[EducationalLevel=1]	-.001	.0354	-.070	.068	.001	1	.977
[EducationalLevel=2]	.058	.0277	.004	.112	4.402	1	.036
[EducationalLevel=3]	.070	.0208	.030	.111	11.413	1	.001
[EducationalLevel=4]	0[a]	.	.	.	.	.	.
A	.059	.0124	.035	.084	22.967	1	.000
B	-.027	.0127	-.052	-.002	4.574	1	.032
C	.053	.0129	.028	.078	16.922	1	.000
(Scale)	.018[b]	.0016	.016	.022			

Dependent Variable: QMSI
Model: (Intercept), Age, Gender, WorkExperience, EducationalLevel, A, B, C

a. Set to zero because this parameter is redundant.

b. Maximum likelihood estimate.

The parameter estimates table summarizes the effect of each predictor. While interpretation of the coefficients in this model is difficult because of the nature of the link function, the signs of the coefficients for covariates and relative values of the coefficients for factor levels can give important insights into the effects of the predictors in the model.

- For covariates, positive(negative) coefficients indicate positive (inverse) relationships between predictors and outcome. An increasing value of a covariate with a positive coefficient corresponds to an increasing ofQMSI.

- For factors, a factor level with a greater coefficient indicates greater QMSI.The sign of a coefficient for a factor level is dependent upon that factor level's effect relative to the reference category.

We can make the following interpretations based on the parameter estimates, for statistically significant variables in the parameter estimate table:

In this study,

- Ahave statistically significantly (*p* values <0.001) higher((estimated coefficient of B=0.059) than C (*p* values <0.001) With estimated coefficient of B=0.053 in thereference category.
- Educational Level 2 has a statistically significantly (*p* value =0.036) lower (estimated coefficient of B=0.058) than Educational Level 3 (p value=0.001) having (estimated coefficient of B=0.070), in the reference category. Educational Level 2 has an estimated parameter lower than Educational Level 3.

The B=0.053 value can be interpreted as:a one unit increase in the A(Affective Commitment)corresponds to the significant increase by 0.053log of the outcome variable (QMSI). Which support our hypothesis that Affective commitment *has significant effects on* quality management systems implementations *in the study area.*

4.7. Qualitative Information results and discussion

The interview participants in the in-depth interview from the two hub and central EPSA have an average age of 41.8 with an age range of 34-60years.,The durations of interviews were range from 40 minutes to 1 hour. The twelve informants involved, had been participating in decision making in the supply chain operations of the Agency and their average experience in the sector was 10 years ranging from 5 to 16 years.

The immediatesupervisors considered in the interview had been worked in different positions or team leads at different functional units: Fleet & Distribution, Warehouse& Inventory management, Quantification& Market shaping, Human resource,Finance, procurement, monitoring & Evaluation, Quality assurance management. They have a lot of experiences in the pharmaceutical supply chain sector challenges and, they have been involving in the supply chain management decisions. For instance,one of the informants described how he understand about the organization's goals and values as EPSA's goal is my goal, because this organization is where I get chances to exercise my supply chain profession and find colleagues to learn from."

From the in-depth interview with informants, the level of employee's commitment to QMS implementations is somewhat related to individual factors, which is somewhat higher with employees with medium educational levels (degree level), and lower with higher education levels(masters holders and lower education levels (diploma certificates and below). Based on the description of the interview participants from the two hub and central EPSA, the level of employee's commitment to QMS implementations which can be categorized in two broad themes:**Extent of Employee's commitment toward QMSI and Employee's commitment manifestations.**

4.7.1. Extent ofEmployee's commitment

Most of the informants raised that even if there are observed individual difference in different functional units, the level of employee's commitment in EPSA'S organizational operations in general is fallen in the medium level of commitment towards QMS implementations.

One of the informants raised that:*"…the level of employee's commitment in our organization varies from individuals to individuals. For example, the commitment towards quality improvement practices is low with the employee of lower educational level, this may be due to lower understanding of the improvement initiative by these employees. On the other hand, the employees with higher educational level are observed good in implementing quality management system (QMS)…"*[KII-01-EPSA].

The other informant expressed that there is positive relationship betweenemployee's commitment and QMS implementations in EPSA operation. According to the informant, "…*it is observed that there is good QMS implementation in the units where there are good commitments to organization's goals and operations, this is also observed within individuals…*"[KII-02-EPSA].Anotherinformantexplained that: "…*employees with higher level education and lower level of education demonstrates lesser employee's commitment and also lesser in the QMS implementations in EPSA operation*…"[KII-03-EPSA].

From the informant's responses, we can say that there is significant relationshipbetween employee's commitment and QMS implementations in EPSA with variations with some of the personal factors.

4.7.2. Employee's commitment manifestations

Most of the informants have explained that the employees overall havea goodwillingness to exert considerable effort on the behalf of the organization. Even though, in contrast to this view, two of therespondents have explained lesser willingness to exert considerable effort on the behalf of the organization, which is manifested by lesser participations which is linked to the dissatisfactions and less engagement by considerable number of employeesin the agency, it is

implied that the behavioral employee's commitment in the Ethiopian Pharmaceutical Supply Agency is somewhat better. One informant described as: *"...I have a good willingness to exert considerable effort in the operations of EPSA, because this is a place where I get somehow a chance to practice my career, in fact with a miss of a lot of motivating factors..."*[KII-04-EPSA].But most of the informants have expressed that employee of EPSA have moderate belief in the organization's goals and values,which means that not as such observed strong belief on the goals and values, which implies that the affective employee's commitment is somewhat less, even though affective employee's commitment dimension has significant effect on QMSI.

From the in-depth interview with respondents, employees of the Agency had demonstratedashared sense of importance of the company's goals. This indicates that the cognitive employee's commitment is significant in the daily operations of Ethiopian Pharmaceutical Supply Agency.

CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS

In this chapter the summary of the findings from the analysis are presented. Conclusions and recommendations are drawn based on the study. The purpose of the study is to investigate the effects of employee's commitment on QMS Implementationsin the case of Ethiopian Pharmaceuticals Supply Agency (EPSA). The study also has specific objectivesof identifying the level of commitment of the employees' and to what extent QMS practices are implemented, what kind of employee's commitment dimensions are in the QMS practice, the effect of Gender, age,educational level, and years of experience on QMS implementations and to show relationship between employees' commitment and quality management systems implementations. The study has its own importance on identifying the significant employee's commitment which have effect on the QMS Implementations and help the leadership and the government of Ethiopia for the successful implementations of improvement initiatives in the pharmaceutical sector.

5.1. Summary of the Main Findings

There was a response rate of 95.4% for usable and properly filled and which can be taken as valid for further analysis. All the obtained data have been included in the analysis. Out of 269 respondents 75.8% were male respondents and female respondents covered the remaining 24.2%. The educational levels of the respondents are mainly degree (52.4%) which is followed by master holders (26.0 %), who were involved directly or indirectly in supply chain management

practices. The highest work experience of the respondents is within the range of 5–10-years which work in the pharmaceutical sector (44.6 %) followed by 11–15-year work experience (26.8 %).

The main finding according to this survey was, there is a considerable effect of employee's commitment on the *quality management system implementations* (QMSI) in the organizational operations of EPSA. The correlation analysis result concluded that, the employee commitment has strong, positive significant effect on ***quality management system implementations*** (QMSI) of Ethiopian Pharmaceutical Supply Agency. From the correlation analysis result and the content analysis of the qualitative survey, all the three types of employee's commitment; Affective commitment, Behavioral commitment, and Cognitive commitment are observed, and which have different influencing extents on QMSI while Affective commitment have strong effect on the quality management systems implementations.

Typically, the study indicates that, *there are positive nonparametric effects of employee's commitment onquality management system (QMS) implementations*, in the Ethiopian Pharmaceutical Supply Agency. The employee's commitment variable from the perception of the skilled professionals in the Ethiopian Pharmaceutical Fund and Supply Agency having a mean statistic value somewhat above the non-discriminating value implies that the level of commitment is not too high, and there are also observed QMS implementations at moderate level with variations in between individuals, functional units and between Center and Hubs.

5.2. Conclusions

The descriptive statistic result of the respondents for the employee's commitment variable from the perception of the skilled professionals in the Ethiopian Pharmaceutical Fund and Supply Agency having a mean statistic value somewhat above the non-discriminating value on the likert scale implies that the level of commitment is not too high, and there are also observed QMS implementations at moderate level with variations in between individuals, functional units and between Center and Hubs.

The findings from the qualitative information had helped to explore some of the most important information regarding levelof Employee's commitment to *quality management system implementations* (QMSI) and Types of Employee's commitment in EPSA, this research attempted to broaden our understanding of the knowledge, based on the perception of skilled professionals who are the actual processors and process owners in the operations of the Ethiopian Pharmaceutical Supply Agency. The other finding whichwas identified is that: The level of employee's commitment in EPSA'S organizational operations in general are fallen in the medium level of commitment to QMS implementations and the three types of employee's commitment considered in this study are observed at different extent by the employees of the Agency. The result further implies that the behavioral employee's commitment in the Ethiopian Pharmaceutical Supply Agency is somewhat better, the affective employee's commitment is somewhat less, even though affective employee's commitment has significant effect on QMSI. And the Cognitive employee's commitment is significant in the daily operations of Ethiopian Pharmaceutical Supply Agency.

Triangulation of the qualitative information and findings of the quantitative study is one of the ways of increasing the trustworthiness of information gathered. At last, the qualitative study that is conducted at about the same time of this study would provide and describe how the opinions and views expressed in the quantitative study. Both methods of the study had identified almost similar results, but detail description and more specific factors and sub factors (like dissatisfactions, less engagement) are explored in the qualitative study.

From the content analysis of informant's responses, we can say that there is significant relationship between some demographic factors and QMS implementations in EPSA with some variations within the category of the personal factors. This is also supported by thecategory of personal factors, examinedin theGLM regression,where some of the Educational levelfactorsare significant. Educational Level 3 has a statistically significantly (*p* value=0.036, estimated coefficient of B=0.058) more effect than the category of Educational in Level 2 (p value=0.001, estimated coefficient of B=0.070), in the reference category. Educational Level 3 has an estimated parameter more than Educational Level 2.

5.3. Recommendations

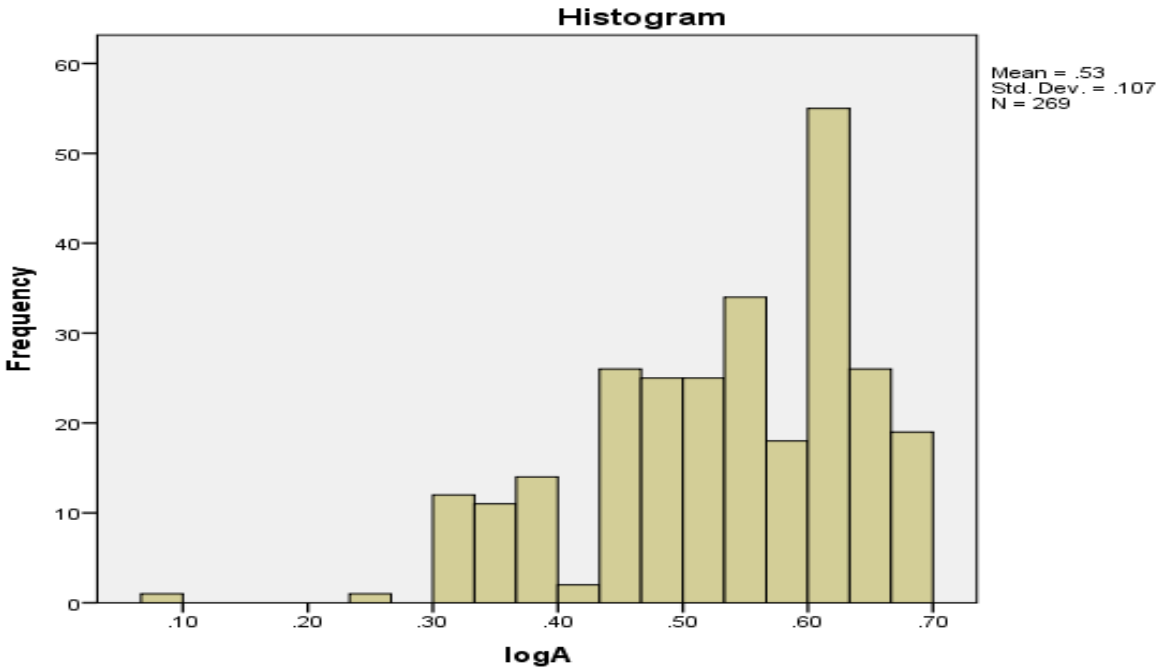
Ethiopian Pharmaceuticals Supply Agency (EPSA) should selector design a new way of operationto energize employeesand respond quickly to today's unpredictable changes.

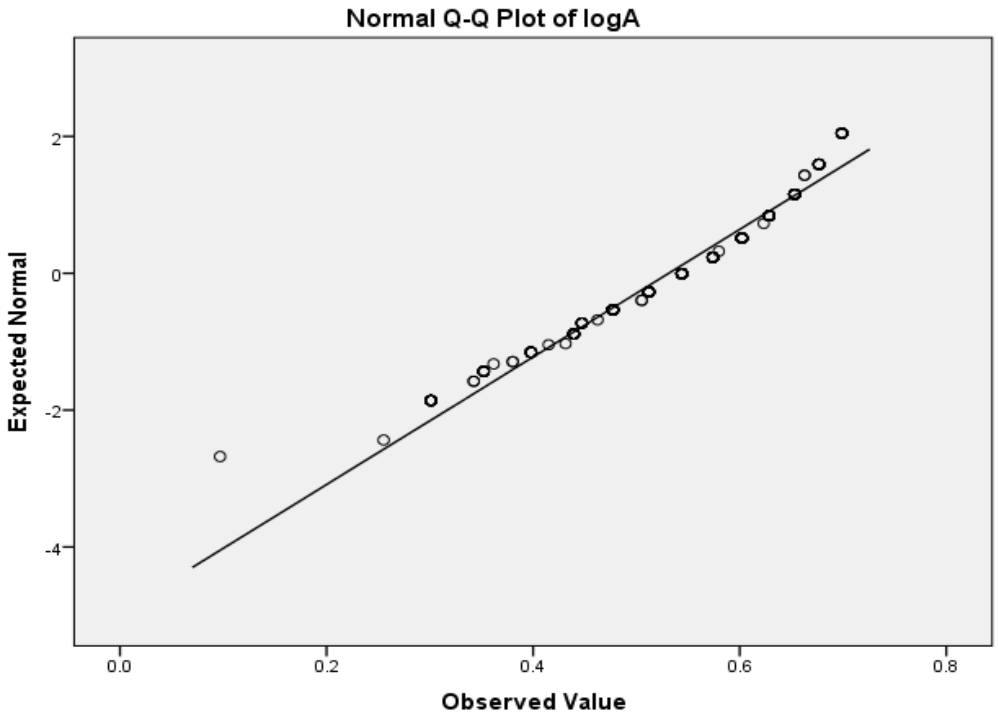
- The agency should focus on the employee's commitment (as soft dimension to QMSI) as vital intervention area besides the other areas of transformations, infrastructure, and technology.
- EPSA should work on Affective commitment by motivating and engaging employees, by creating conducive work environment and learning platforms for maximizing the

success of QMS implementations…enhance intrinsic motivation especially for the higher educational level employees and lower educational level employees as well.

- EPSA should focus on HR development strategies such as…training and reward systems, retention mechanisms, for the successful implementations of improvement initiatives like QMS. Thus, The QMS program should be accompanied by a set of HRM practices that favors; employee empowerment, teamwork, training & development, appraisal, and compensation practices that link employees with the quality management system.
- The Agency should translate some QMS SOPs for lower staffs….to boost employee engagement.
- The management of agency also needs to critically analyze the right fit of improvement initiatives and the competency of the employees.
- The Agency should work to increase belief in and acceptance of its goals and values by the employees, to fit well (i.e., work to increase affective commitment).
- The agency should routinely assess the commitment of employee and device interventions.
- The agency should measure the impact of QMS implementation to narrow the individual and functional unit gaps. And, for the effective investment on improvement initiatives.

Figure 3:Data plots and Histograms.

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Expected Normal
Observed Value
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-2
-4
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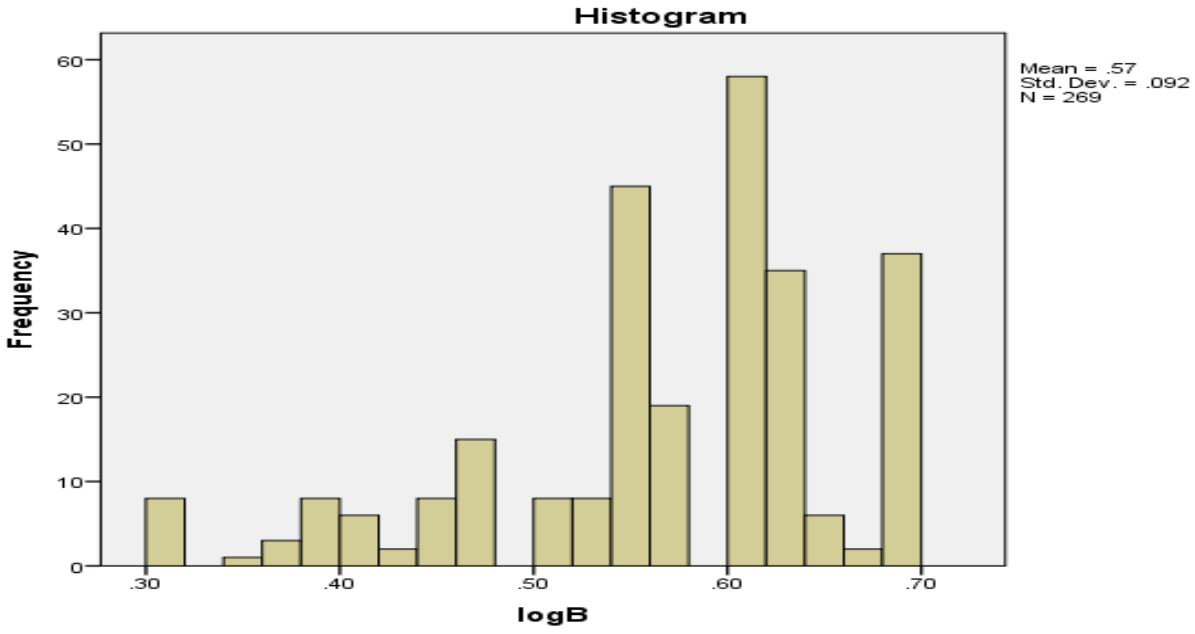
0.2
0.4
0.6
0.8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Mean = .57
Std. Dev. = .092
N = 269
Frequency
logB
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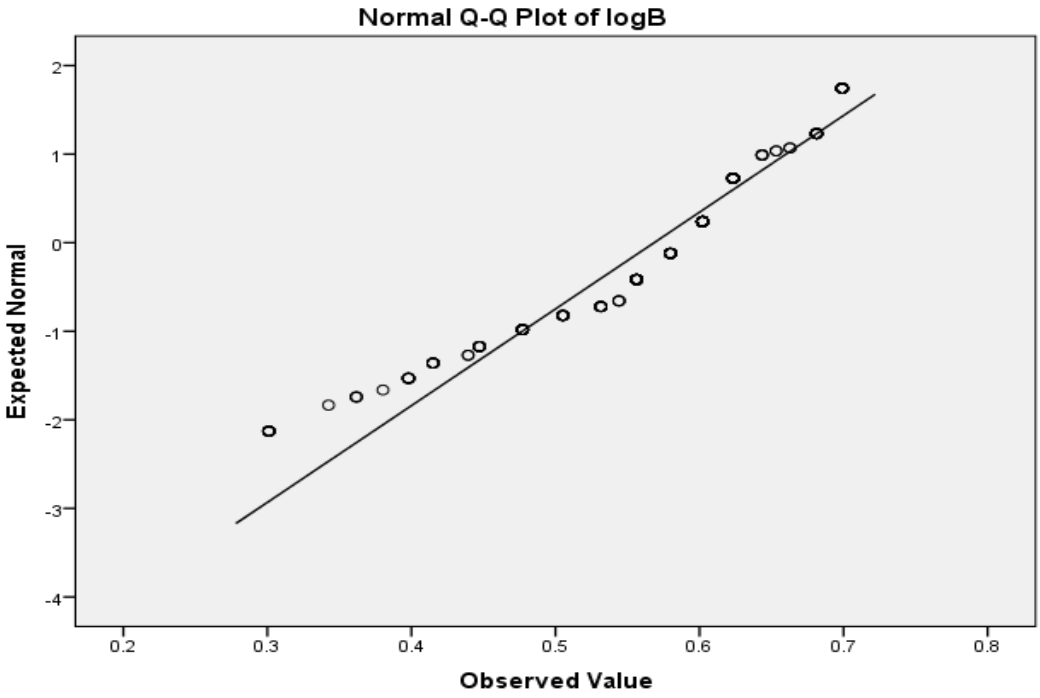
50
40
30
20
10
0
.30
.40
.50
.60
.70


Normal Q-Q Plot of logB
Expected Normal
Observed Value
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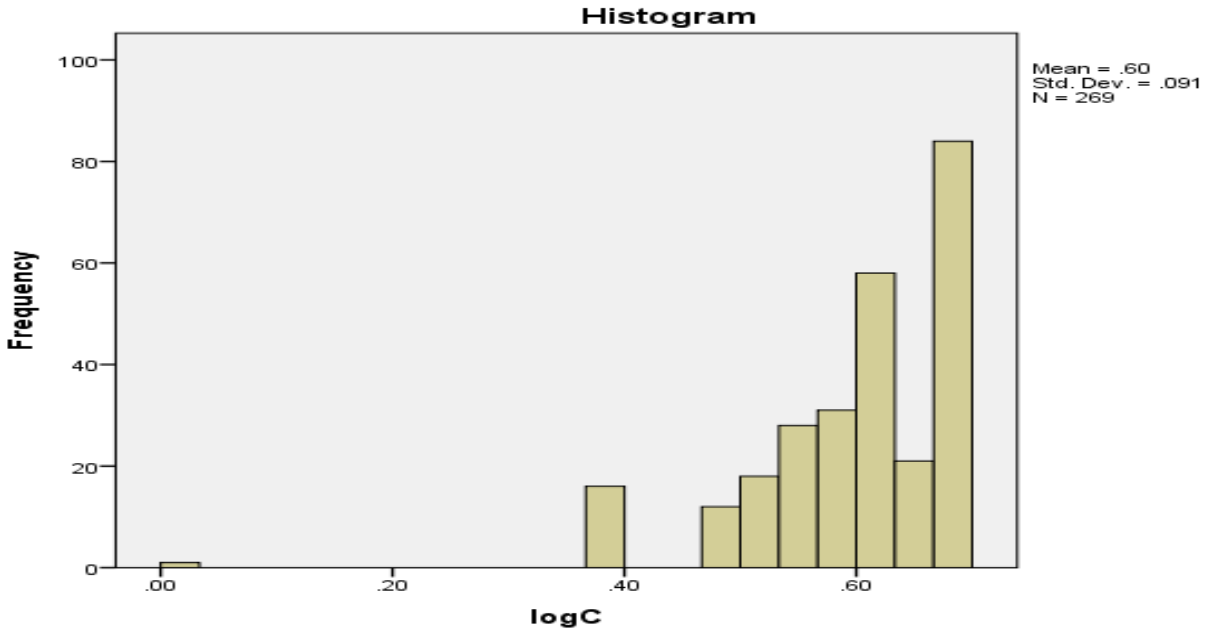
-2
-3
-4
0.2
0.3
0.4
0.5
0.6
0.7
0.8


Histogram
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Std. Dev. = .091
N = 269
Frequency
logC
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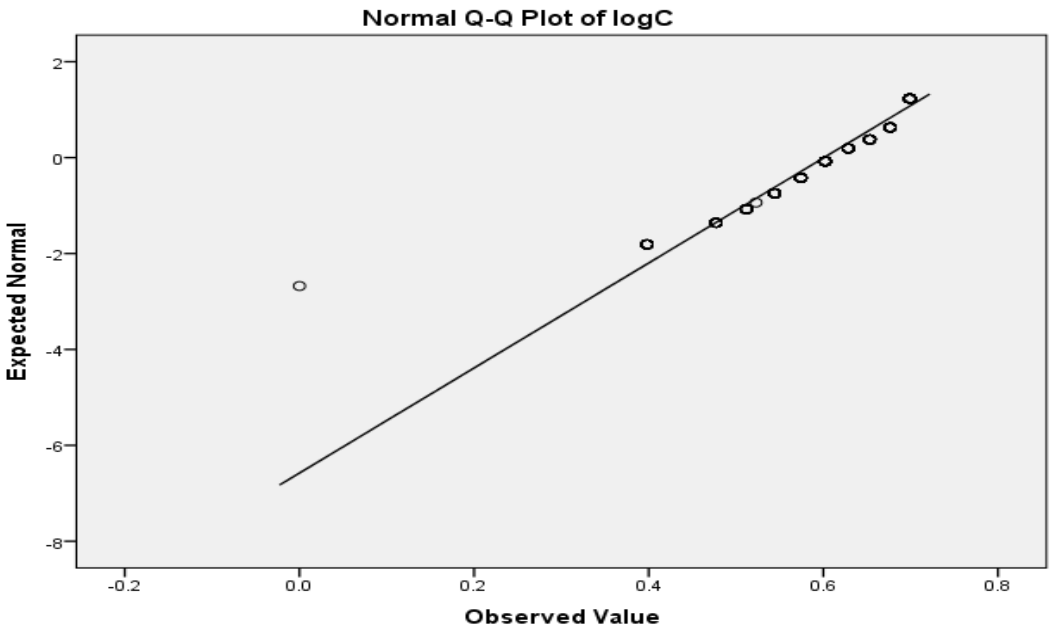
80
60
40
20
0
.00
.20
.40
.60


Normal Q-Q Plot of logC
Expected Normal
Observed Value
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-6
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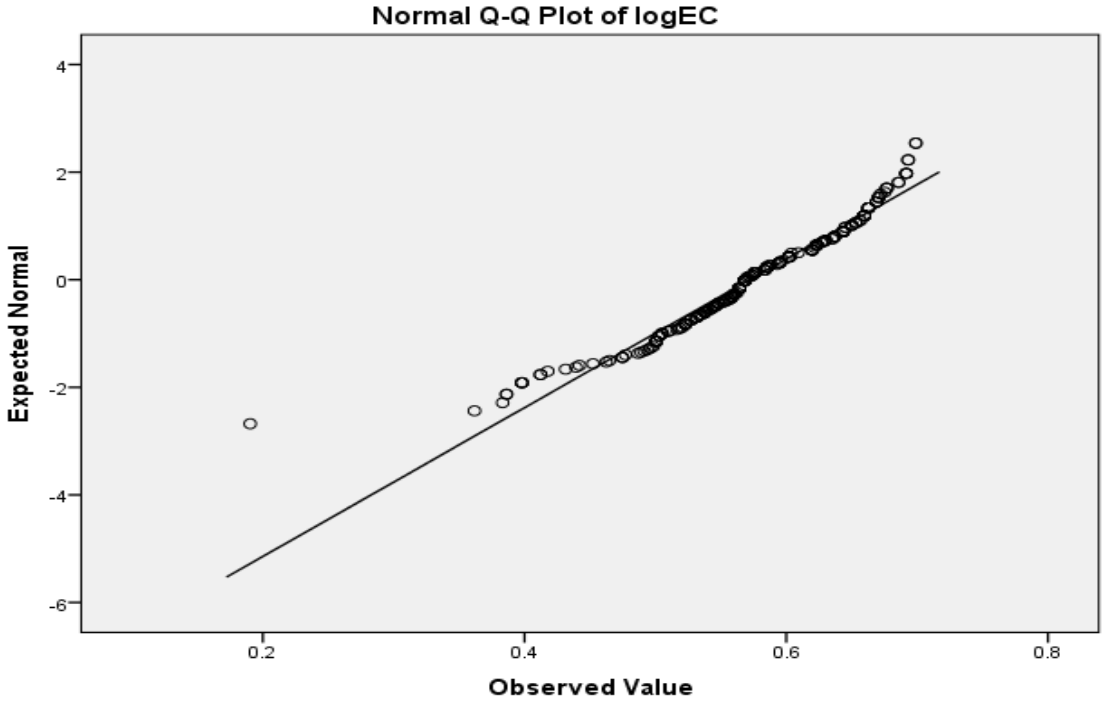
0.2
0.4
0.6
0.8


Normal Q-Q Plot of logEC
Expected Normal
Observed Value
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-4
-6
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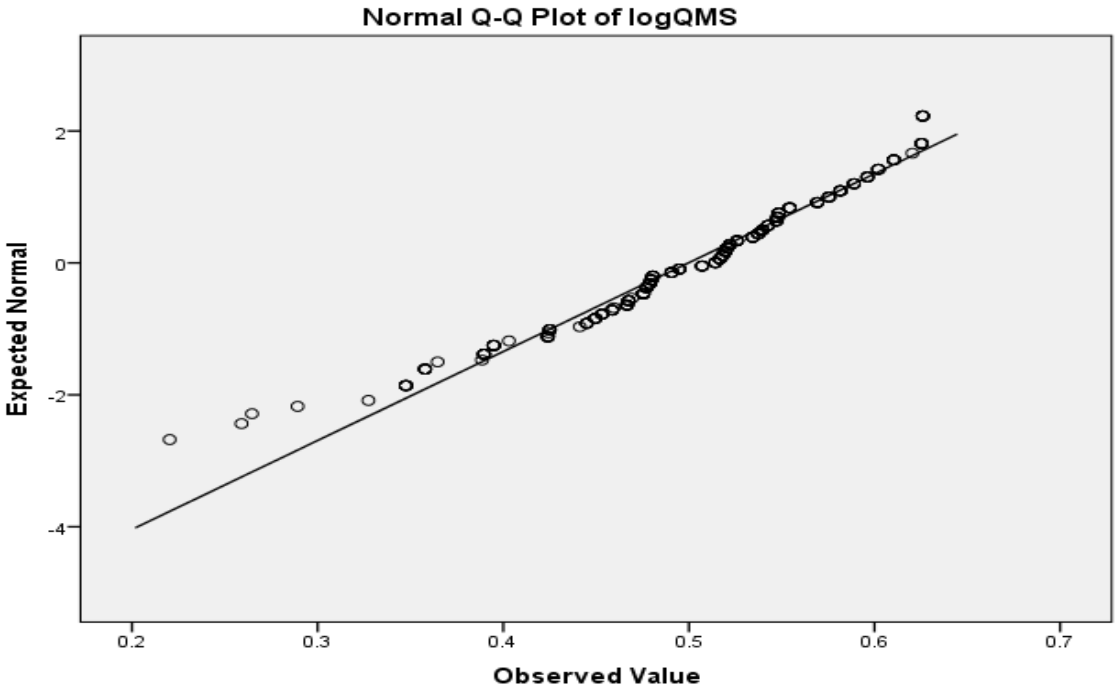
0.4
0.6
0.8


Normal Q-Q Plot of logQMS
Expected Normal
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0
-2
-4
0.2
0.3
0.4
0.5
0.6
0.7
Observed Value

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Annexes

1. Table 15: Kendall's tau_b correlation bivariate analysis result.

			QMSI	A	B	C	EC	Work Experience	Educational Level
Kendall's tau_b	QMSI	Correlation Coefficient	1.000	.358**	.113**	.303**	.267**	-.082	-.056
		Sig. (2-tailed)	.	.000	.009	.000	.000	.079	.238
		N	269	269	269	269	269	269	269
	A	Correlation Coefficient	.358**	1.000	.177**	.408**	.556**	.053	.014
		Sig. (2-tailed)	.000	.	.000	.000	.000	.268	.772
		N	269	269	269	269	269	269	269
	B	Correlation Coefficient	.113**	.177**	1.000	.298**	.531**	.055	-.052
		Sig. (2-tailed)	.009	.000	.	.000	.000	.260	.293
		N	269	269	269	269	269	269	269
	C	Correlation Coefficient	.303**	.408**	.298**	1.000	.623**	.115*	-.006
		Sig. (2-tailed)	.000	.000	.000	.	.000	.018	.911
		N	269	269	269	269	269	269	269
	EC	Correlation Coefficient	.267**	.556**	.531**	.623**	1.000	.117*	.028
		Sig. (2-tailed)	.000	.000	.000	.000	.	.013	.552
		N	269	269	269	269	269	269	269
	Work Experience	Sig. (2-tailed)	.682	.109	.458	.002	.042	.000	.602
		N	269	269	269	269	269	269	269
		Sig. (2-tailed)	.779	.901	.005	.675	.451	.704	.231
		N	269	269	269	269	269	269	269
		Correlation Coefficient	-.082	.053	.055	.115*	.117*	1.000	-.014
		Sig. (2-tailed)	.079	.268	.260	.018	.013	.	.786
		N	269	269	269	269	269	269	269
	Educational Level	Correlation Coefficient	-.056	.014	-.052	-.006	.028	-.014	1.000
		Sig. (2-tailed)	.238	.772	.293	.911	.552	.786	.

N	269	269	269	269	269	269	269

2. Research Questionnaire

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE, Master of Business Leadership
Questionnaire to be filled by ……

Dear Respondents,

I am graduating class of MBL student at Addis Ababa University. This structured questionnaire is for collecting data on "effects of employees' commitment on Quality management system practices, in the case of Ethiopian Pharmaceutical Fund & Supply Agency". You are kindly requested to provide the required data in the questionnaire. The process will take you only about 30 minutes to complete. The information that you provide will remain confidential and is sought exclusively for the completion of an MBL research project. Thank you very much for taking the time to complete this survey.

Your input into this questionnaire will go a long way in enhancing employees' commitment and better understand Quality management system practices by identifying factors that hinder the continual process improvement of the organization. If you would like to attain a copy of this report, the researcher promises to deliver after completion of the program.

N.B. No need of writing your name.

Thank You in Advance!!!

ZelalemNigusse.

Part 1: Quantitative part

SECTION I: GENERAL INFORMATION/ DEMOGRAPHIC FACTORS THAT INFLUENCE EMPLOYEE COMMITMENT

The following four questions are concerned with demographic data of the respondents. Please, indicate your selection by checking (√) the box which describes your demographic characteristics.

1. Personal characteristics – age and gender –
   Age in year _____
   Gender? Male_____ Female_____
2. Work experience in this organization in years_____
   2.1.Work experience in other organization in Years-----
3. Educational background: 1. Below Diploma_____2. Diploma_____3. Degree____ 4. Masters_____5. PHD_____

SECTION II: Employee Commitment

4. Employee Commitment to QMS implementations

In accordance with the conceptualization of quality commitment described in this study, a set of measurement is adopted from the conceptualization and measurement for Employee commitment to quality by Paul R. Jackson (2004), based on dimensions of Affective commitment, Behavioral commitment, and Cognitive commitment (see Table). Responses to each item Will be recorded on a five-point scale.

Please indicate the extent of your agreement or disagreement with each statement as objectively as you can by using the following rating scale and putting (√) mark on one of it.

Use the following rating scale	1=strongly disagree	2=disagree	3=Neutral	4=Agree	5=strongly agree

No	Employee Commitment to Quality based on model of commitment, List of scale items:	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
A1	It pleases me to know that my own work has made a contribution to the quality of the company's products					
A2	A major source of satisfaction from my job comes from producing a					

	quality piece of work					
A3	It is important to me that my company continues to put an emphasis on quality					
A4	*I really feel as if this organization's problems are of my own*					
B1	I am continually taking action to improve the quality of my work.					
B2	Even if my work was never checked, I would continue to treat quality as being important.					
B3	I do not mind spending more time on a task in order to increase its quality, even if I get no credit for it					
B4	I am prepared to put in extra effort to meet quality goals.					
B5	In my job, quality is the most important target to achieve.					
C1	I feel that quality is the most important aspect of my job.					
C2	I take personal responsibility for the quality of my own work.					
C3	Each individual has an important part to play in increasing the quality of my company's products					
C4	I feel I share a responsibility for the quality of my company's products,					
	Note: A = affective facet; B = behavioral facet; C = cognitive facet					

SECTION III. Items Related to the people's perspective of QMS implementations.

The scale adopted for the dependent variable is a pre-tested questionnaire for its reliability and validity, taken from the work of Afeliga E (2017) with some modifications(selections) that will be suitable for this study. The questionnaire consisted of 28 questions are selected from the four categories of people related QMS practices identified in the literature review. These categories are from the ISO 9001-2015 criteria, which has been used for the evaluation of quality management in many organizations. The items were written in the form of statements to which the respondents responded using a five-point Likerts type scale (ranging from very high to very low). Source: Afeliga E (2017)

	The item lists:	Strongly Disagree	Disagree	No idea/Neutral	Agree	Strongly agree

A.	The full scales for the specific People related QMS practice dimensions: 1. Leadership 2. Employee participation & Teamwork 3. Recognition and reward. 4. Education and training					
	Scale 1 - Leadership:					
1L	Top management actively participates in quality management activities.					
2L	Top management learns quality-related concepts and skills.					
3L	Top management strongly encourages employee involvement in quality management activities.					
4L	Top management empowers employees to solve quality problems.					
5L	Top management arranges adequate resources for employee education and training.					
6L	Top management discusses many quality-related issues in top management meetings.					
7L	Top management pursues long-term business success					
	Scale 2: Employee participation & Teamwork:					
1EPT	Our firm has cross-functional teams.					
2EPT	Our firm has several QC circles (within one function).					
3EPT	Employees are actively involved in quality-related activities.					
4EPT	Most employees' suggestions are implemented after an evaluation.					
5EPT	Employees are very committed to the success of our firm.					
6EPT	Employees are encouraged to fix problems they find.					
7EPT	Reporting work problems is encouraged in our firm					
	Scale 3: Recognition and reward					
1RR	Our firm improves working conditions					

	in order to recognize employee quality management efforts.					
2RR	Our firm has a salary promotion scheme to encourage employee participation in quality management.					
3RR	Position promotions are based on work quality in our firm.					
4RR	Excellent suggestions are financially rewarded.					
5RR	Employees' rewards and penalties are clear.					
6RR	Recognition and reward activities effectively stimulate employee commitment to quality management.					
7RR	Reporting work problems is encouraged in our firm					
	Scale 4: Education and training					
1ET	Employees are encouraged to accept education and training in our firm.					
2ET	Resources are available for employee education and training in our firm.					
3ET	Most employees in our firm are trained on how to use quality management methods (tools).					
4ET	Quality awareness education is given to employees.					
5ET	Specific work-skills training is given to all employees.					
6ET	Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their career					

Part 2: Qualitative part

Guiding Qualitative questionnaires … for direct supervisors (line managers)

1. What do you think are the level of employees' commitment to QMS implementations in this firm: By using levels, we can see that employee commitment can occupy different stages of development: How do you justify?

2. What do you think are the relationship of employee's commitment and QMS implementations in EPSA? How do you express?

3. What are type of commitments are observed in your firm by the employees in the routine practice of implementation of the QMS? How do you describe?

   Hint: Affective, Behavioral, Cognitive

   - ✓ QA. Do employees of your firm have a strong belief in the organization's goals and values?

   - ✓ QB. Do employees your firm have willingness to exert considerable effort on the behalf of the organization?

   - ✓ QC. Do employees of your firm have a strong desire to continue as an organization member?

Thank you for your cooperation!!!!!!!!