THE BARRIERS IN IMPLEMENTATION OF ISO 9001 QUALITY MANAGEMENT SYSTEM STANDARD IN SOMALILAND SMALL AND MEDIUM ENTERPRISES

BY

ABDIAZIZ FARHAN MOHAMMED

A dissertation submitted in fulfillment of the requirement for the degree of Master of Science (Manufacturing Engineering)

> Kulliyyah of Engineering International Islamic University Malaysia

> > **JULY 2019**

ABSTRACT

In 2017 a total of 1,106,356 ISO 9001 certificates were issued worldwide. Only 13,378 were certified to African organizations. African continent lags in the implementation of the ISO 9001 standard. The low number of certificates suggests the existence of barriers to the implementation of the standard. Number of studies were conducted to determine these barriers in several African countries. In Somaliland, there are no ISO 9001-certified organizations and there have been no studies done on factors preventing the implementation of the standard. Therefore, the purpose of this study is to determine barriers to ISO 9001 implementation in Somaliland SMEs and to develop a framework for the implementation process. The method of quantitative research was used, and a structured questionnaire was developed and delivered to a randomly selected 100 Somaliland SMEs. Out of the sample, a total of 86 questionnaires were returned, giving a final response rate of 86%. Five variables were determined from related literature to be the hindering variables to the implementation of ISO 9001 in most African countries. Findings reached from this research indicated three variables to account significant variance in barriers; government regulations $(R^2 = 0.35, p = .00)$, lack of leadership commitment $(R^2 = 0.20, p = .00)$, and lack of human resource ($R^2 = 0.30$, p = .00), as the three major barriers to ISO 9001 implementation to SMEs in Somaliland. For the other variables measured they did not cause significant variance in the barriers. The awareness level of ISO 9001 standard among Somaliland SMEs is found to be moderate (M=3). This result concurs with the findings conducted in other countries. To overcome the identified barriers, the study proposes an ISO 9001 implementation framework. The framework is to assist Somaliland SMEs in improving their capability and thereby contribute to their competitive advantages. The objectives of this study were successfully achieved, three main barriers to ISO 9001 implementation to SMEs in Somaliland were identified and a framework taking these barriers into account was developed. This study builds the foundation for a better understanding of the quality management system in Somaliland. It also contributes to the body of knowledge in the area of the quality management system with interest in Somaliland. The findings and the developed framework of this study is limited by the geographical location of the study.

خلاصة البحث

عام 2017 ، تم إصدار 1،106،356 شهادة (9001 ISO)في جميع أنحاء العالم، فقط 13378 منها تم اعتمادها للمنظمة الأفريقية. المؤسسات المتواجدة في القارة الأفريقية متخلفة في استخدام هذا المعيار. يشير العدد القليل من الشهادات إلى وجود عوائق أمام تنفيذ المعيار. تم إجراء عدد من الدراسات لتحديد هذه العوائق في العديد من البلدان الأفريقية. في صوماليلاند ، لا توجد منظمات حاصلة على شهادة OOOI ISO ولم يتم إجراء أي دراسات حول العوامل التي تمنع تنفيذ المعيار الذلك ، فإن الغرض من هذه الدراسة هو تحديد العوائق التي تحول دون تنفيذ 9001 ISO في الشركات الصغيرة والمتوسطة في صوماليلاند ووضع إطار لعملية التنفيذ. تم استخدام طريقة البحث الكمي ، وتم تطوير استبيان منظم و تسليمه إلى عينة مكونة من 100 شركة صغيرة ومتوسطة تم اختيارها بشكل عشوائي في صوماليلاند.تم إرجاع ما مجموعه 86 استبيانًا من العينة، مما يمثل معدل استجابة نهائي بلغ 86٪. أظهرت النتائج التي تم التوصل إليها من هذا البحث ثلاثة متغيرات R2 = 0.20 ، عدم التزام القيادة (0.20 = R2 = 0.35 ، p) عدم التزام القيادة (0.20 = R2 = 0.20 ، عدم التزام القيادة (ISO باعتبارها العوائق الرئيسية الثلاثة أمام تطبيق (00. = R2 = 0.30 ، p) ، ونقص الموارد البشرية (00. = p 9001 للشركات الصغيرة والمتوسطة في صوماليلاند. بالنسبة للمتغيرات الأخرى المقاسة ، فإنها لم تسبب تباينًا كبيرًا في العوائق. تشير النتائج إلى أن مستوى الوعي لمعيار 9001 ISO بين الشركات الصغيرة والمتوسطة في صوماليلاند متوسط (M = 3). تتفق هذه النتيجة مع النتائج التي تم إجراؤها في بلدان أخرى. للتغلب على العوائق المحددة ، تقترح الدراسة إطار تنفيذ 9001 ISO. يتمثل الإطار في مساعدة الشركات الصغيرة والمتوسطة في صوماليلاند على تحسين قدراتها وبالتالي المساهمة في مزاياها التنافسية. تم تحقيق أهداف هذه الدراسة بنجاح ، وتم تحديد ثلاثة عوائق رئيسية أمام تطبيق 9001 ISO للشركات الصغيرة والمتوسطة في صوماليلاند وتم تطوير إطار يأخذ هذه العوائق في الاعتبار. تبني هذه الدراسة الأساس لفهم أفضل لنظام إدارة الجودة في صوماليلاند. كما أنها تساهم في زيادة الكم المعرفي في مجال تطبيق أنظمة إدارة الجودة لدى المؤسسات المتواجدة بمنطقة صوماليلاند. تقتصر النتائج والإطار المطور لهذه الدراسة على الموقع الجغرافي للدراسة.

APPROVAL PAGE

I certify that I have supervised and read this acceptable standards of scholarly presentatio as a dissertation for the degree of Master of S	n and is fully adequate, in scope and quality
	Dr. Mohamed Bin Abd Rahman Supervisor
	Dr. Muataz Hazza Faizi Al Hazza Co-Supervisor
I certify that I have read this study and th standards of scholarly presentation and is dissertation for the degree of Master of Scien	fully adequate, in scope and quality, as a
	Ir. Prof. Dr. Md. Yosuf Bin Ismail Internal Examiner
This dissertation was submitted to the De Engineering and is accepted as a fulfillment of Science (Manufacturing Engineering)	- -
	Mohamed Bin Abd Rahman Head, Department of Manufacturing and Material Engineering
This dissertation was submitted to the Kul fulfillment of the requirement for the degree	••
	Prof. Dr. Ahmad Faris Ismail Dean, Kulliyyah of Engineering

DECLARATION

where otherwise stated. I also declare that it has no	ot been previously or concurrently
submitted as a whole for any other degree at IIUM or o	other institution.
Abdiaziz Farhan Mohammed	
Signature	Date

I hereby declare that this dissertation is the result of my own work investigation, except

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR USE OF UNPUBLISHED RESEARCH

THE BARRIERS IN IMPLEMENTATION OF ISO 9001 QUALITY MANAGEMENT SYSTEM STANDARD IN SOMALILAND SMALL AND MEDIUM ENTERPRISES

I declare that the copyright holders of this dissertation are jointly owned by the student and IIUM.

Copyright © 2019 Abdiaziz Farhan Mohamed and International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below

- 1. Any material contained in or derived from this unpublished research may be used by others in their writing with due acknowledgment.
- 2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
- 3. The IIUM library will have the right to make, store in a retrieved system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understood the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Abdiaziz Farhan Mohammed	
Signature	Date

This thesis is dedic	ated to my late gr for their love, sup	andmother and praye	to my beloved parents rs.

vii

ACKNOWLEDGMENTS

All glory is due to Allah, the Almighty, whose Grace and Mercies have been with me throughout the duration of my studies. Although it has been challenging, His Mercies and Blessings on me eased the endeavors of completing this thesis.

I would like to express my deep sense of gratitude to all my family specially my parents for their inexhaustible support. Without their firm belief in me, I could not have accomplished this goal. Thank you, mum and dad.

I am grateful to Mr. Warsame of the University of Hargeisa for assisting in the data collection which was essential to realize this study. I am thankful to all my friends who provided their valuable time and support for this project.

Chiefly, I would like to express my sincere appreciation to Dr. Mohamed Bin Abd Rahman, my supervisor and Dr. Muataz Hazza Faizi, my co-supervisor for their valuable and constructive suggestions during the planning and development of this research work. Their willingness to give their time generously is very much appreciated.

TABLE OF CONTENTS

Abstract	ii
Abstract in Arabic	iii
Approval Page	
Declaration	
Copyright Page	
Acknowledgements	
List of Tables	
List of Figures	xii
List of Abbreviations	xiii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem	6
1.3 Purpose of the Study	7
1.4 Aim and Research Objectives	
1.5 Research Questions and Hypothesis	
1.6 Significance of the Study	
1.7 Scope of the Study	9
1.8 Definition of Terms	10
1.9 Chapter Summary	11
CHAPTER TWO: LITERATURE REVIEW	12
2.1 Introduction	
2.1.1 Brief History of QMS	
2.1.1.1 Overview of ISO 9001	
2.1.2 Characteristics of SMEs in Somaliland	15
2.2 Importance of ISO 9001 Implementation for SMEs	17
2.3 Barriers Faced by SMEs in the Implementation of ISO 9000	
2.3.1 Awareness	
2.3.2 Quality Knowledge	26
2.3.3 Leadership	
2.3.4 Human Resources	28
2.3.5 Government Regulations	28
2.4 Framework for ISO 9001 Implementation	
2.5 Barriers Determined in the Literature	34
2.6 Conceptual Framework Critique	36
2.6.1 The Structure of the Conceptual Framework	

CHAPTER THREE: RESEACH METHODOLOGY	40
3.1 Introduction	40
3.2 Research Plan	
3.3 Selection of Research Method	
3.3.1 Questionnaire Design	
3.3.2 Sample Design	
3.3.2.1 Questionnaire Respondents	
3.3.3 Preliminary Studies	
3.3.3.1 Pilot Testing the Questionnaire	
3.3.4 Questionnaire Survey	
3.3.4.1 Questionniare Data Analysis	
3.4 Chapter Summery	52
CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION	53
4.1 Introduction	
4.2 Profile of Respondents	
4.2.1 Validation of the Questionniare	
4.3 Awareness Level of ISO 9001 SMEs in Somaliland	
4.4 Relationship Between Constructs of the Questionnaire	
4.4.1 Relationship Between Awareness and Barriers	
4.4.2 Relationship Between Quality Knowledge and Barriers	
4.4.3 Relationship Between Leadership and Barriers	
4.4.4 Relationship Between Human Resource and Barriers	
4.4.5 Relationship Between Government Regulations and Barriers	
4.5 Determining Magnitude of Construct Relationships	
4.6 Development of ISO 9001 Implementation Framework	
4.7 Chapter Summary	
CHAPTER FIVE: CONCLUSION	80
5.1 Conclusion	80
5.2 Research contribution	
5.3 Limitation and Recommendation for Further Research	82
REFERENCES	84
APPENDIX A	93
APPENDIX B	
APPENDIX C	

LIST OF TABLES

Table 1.1 ISO Management Standards Across 10 African Countries	3
Table 2.1 Definition of SMEs	16
Table 2. 2 Summary of literatures on ISO 9001 Implementation Barriers	20
Table 2. 3 Categorized Summary of Barriers to ISO 9001 Implementation	37
Table 3. 1 Sample Precision Level	47
Table 4. 1 Employee Size of Responding Organizations	55
Table 4. 2 Individual Respondents Working Experience	56
Table 4. 3 Reliability Statistics	57
Table 4. 4 KMO and Bartlett's Test	58
Table 4. 5 Principle Component Analysis Result for the Constructs	59
Table 4. 6 Awareness Level of ISO 9001	61
Table 4. 7 Model Summary	65
Table 4. 8 ANOVA for the Constructs	66
Table 4. 9 ANOVA for Government Regulation and Barrier	67
Table 4. 10 Model Summary for Government Regulations	67
Table 4. 11 ANOVA for Human Resource and Barrier	68
Table 4. 12 Model Summary for Human Resource	68
Table 4. 13 ANOVA for Leadership and Barrier	69
Table 4. 14 Model Summary for Leadership	69

LIST OF FIGURES

Figure 2.1 Graphical Process Map	31
Figure 2.2 Process Map	32
Figure 2.3 QMS Implementation Framework	36
Figure 2.4 Conceptual Framework for Barriers to ISO 9001 Implementation	41
Figure 3.1 General Research Methodology	42
Figure 3.3 Questionnaire Survey Process	50
Figure 4.1 Individual Respondents Position	56
Figure 4.2 ISO 9001 Implementation Framework	71

LIST OF ABBREVIATIONS

ISO International Organization for Standardization

QMS Quality Management System

QM Quality Management
QA Quality Assurance
QC Quality Control
QI Quality Improvement

PDCA Plan-Do-check-Act

SMEs Small and Medium Enterprises

CI Continues Improvement
The certification ISO 9001 Certification

FTZ Free Trade Zone AU African Union

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Quality Management System (QMS) is implemented for a number of reasons, the primary objective being customer satisfaction and quality improvement achieved through improved processes (Abdelmassih, 2016). Both quality and innovation play a crucial role in today's competitive market (Zeng et al., 2015). Thus, to remain competitive in the international arena implementation of QMS is necessary. From the perspective of the free market economy, small-medium enterprises (SMEs) contribute a big share in the national and international markets (Baykal et al., 2004). Small businesses account for the largest portion of the world economy. More than 95% of the world's enterprises are small to medium-sized (ISO, 2016). The economy of many developing and least developed countries relies on SMEs.

In Africa, SMEs account for more than 90% of total industries and contribute over 50% of employment (Vjesnik, 2017). In the past ten years, Africa has experienced significant economic growth while the rest of the world struggled with economic growth. Africa averaged more than 5% far above America, Europe and South America (Muriithi, 2017). Largely the growth in Africa's economy may be attributed to SMEs, which attract investors specifically form the USA, China, and India.

SMEs are the economic drivers in both developed, developing and least-developed countries. For instance, SMEs provide about 80% employment of the total population in Kenya and contributed more than 50% of GDP growth in the year of 2017, as reported by the Central Bank of Kenya (CBK). However, with these high base economic growth African countries still, have the lowest number of ISO 9001 certification. Official statistics (ISO, 2017) confirm these; in 2017 total ISO 9001 valid certificates issued worldwide were 1,106,356. African countries accounting 13,378 only which is 1.2% of the total ISO certificates. Besides the importance of SMEs and their benefits to the economy, many SMEs face numerous challenges including poor managerial skills and competencies (Muriithi, 2017). Hence, implementing a suitable quality management system in such industries not only improves customer satisfaction but also opens a new gateway for international trade.

Recently, 44 out of the 55 African Union (AU) member states have signed new deal creating Africa Continent Free Trade Area (AFCFTA) allowing continental trade with no tariffs. Free trade zones (FTZs) can have a significant improvement in the country's trade and economic stance. It lowers barriers to economic development by removing bureaucratic works, local regulations, and tariffs. This agreement not only encourages trade but also the implementation of QMS to ensure smooth trades between member states and to establish a quality culture. Since African countries' economy largely depends on SMEs; incorporating international standards will help the growing SMEs in African gain larger shares in both continental and intercontinental trades. Globalization of the world

economy commands the adoption of international standards to facilitate trades between countries (Boiral, 2001). The rise of the number of ISO certification seen in Africa is a positive and welcomed trend. However, the number of industries with ISO certifications is concentrated in two countries: South Africa and Egypt. This situation can partly be attributed to the fact that these countries are the most developed in Africa in terms of economy and manufacturing.

Table 1.1 ISO 9001 standards across 10 African countries with the highest number of certifications

Number	Countries	ISO 9001	% of the total in Africa
1	South Africa	4346	35.76
2	Egypt	2484	20.44
3	Tunisia	998	8.21
4	Morocco	969	7.97
5	Kenya	656	5.40
6	Algeria	569	4.68
7	Mauritius	239	1.97
8	Angola	208	1.71
9	Nigeria	202	1.66
10	Ivory Coast	162	1.33

Source: (Valery, Tene, Yuriev, & Boiral, 2018)

Table 1 summarizes the distribution of ISO 9001 standard certifications in 10 African countries with the highest number of ISO 9001 certifications. These numbers show how African countries are lagging in ISO certifications, South Africa and Egypt being the exception. In addition, among the 51 countries in Africa recognized by ISO, 29 have less than 30 ISO certificates, for instance, Benin and Togo. Many kinds of literature

attribute the small number of ISO 9001 certification in Africa to different barriers. For example, institutional weakness (Valery et al., 2018), lack of operational skills, lack of managerial skills, lack of financial access, too many government regulations and lack of education (Douglas J., 2017). Also, (Albadran, 2014) categorized various items such as top management commitment, customer satisfaction, employee resistance, and unwillingness to change the system as the main ISO 9001implementation barriers. On the other hand, the number of literature available regarding the awareness level of ISO 9001 standards in Africa are is and could not be located. Thus, the literature studied regarding the level awareness of ISO 9001 implementation were from studies done in other continents. On the contrary, most of the studies done regarding ISO 9001 implementation focused on countries considered developed in Africa in terms education, technology and economy, such as Egypt, Kenya and South Africa. Only limited literatures are available regarding the awareness and barriers of ISO 9001 implementation in the Least Developed Countries (LDC) in Africa such as Ethiopia, Somalia, Djibouti, etc.

This research focuses on Somaliland a de facto state, which is one of the least developed countries in Africa with no formal international recognition, but the government of Somaliland is striving to develop countries economy through reforming its institutions. Somaliland economy largely depends on exporting livestock. But, due to climate changes the country is not receiving enough rainfall thus cannot sustain its present capacity of livestock exports (Ministry of National Planning, 2017). The government of Somaliland is trying to diversify its economy by putting more emphasis

on other sectors, such as SMEs. Hence, the government is looking into ways of enabling SMEs to compete in international markets and imported goods sold in local markets.

Globalization has become the new economic world order (Anoye, 2015). International standards are not only a requirement but necessary for Somaliland products or services to compete and gain bigger market shares in the international arena. This phenomenon dictates all countries compete regardless of their economic strength. Thus, the need for international and national standards is evident. Unfortunately, least developed countries in Africa like Somaliland do not have a developed infrastructure in the areas of standardization and regulations. This lack of standards and regulations acts as a barrier to the implementation of ISO 9001 and also, hinders SMEs in Somaliland to compete in the international arena. Not only that, but, consumers in the least developed countries (LDC) such as Somaliland find it difficult to buy products of good quality because of the lack of standards and regulations. To make improvements in those countries radical change is necessary for their management approach.

In Somaliland, locally produced products are mostly beverages. These products are mainly consumed locally. Implementation of ISO 9001 will help these industries improve their product quality and tap into bigger markets in the neighboring countries.

Currently, there is no research done regarding Somaliland QMS. Thus, this research intends to investigate awareness and barriers to QMS implementation in Somaliland SMEs and suggest a framework for implementing ISO 9001 standards.

1.2 STATEMENT OF THE PROBLEM

Globalization has been challenging how SMEs produce and deliver their products and services. Similarly, customers of these SMEs are continually demanding high quality, low price and short lead time. This requires the organization to considerably invest in building and developing efficient and effective QMS. QMS integrates processes within the organization and provides a process approach, ISO 9001 is an example of QMS. Several researchers (Albadran, 2014; Anoye, 2015; Briscoe et al., 2005; Ochieng et al., 2015) have analyzed the importance of ISO 9001 standards implementation for SMEs. Also, other literature (Douglas A., Muturi, & Douglas, 2015; Muriithi, 2017; Parris, 2013; Sun & Cheng, 2002) emphasized the importance of ISO 9001 for trades. Besides the importance of SME and their benefits to the economy, they face many challenges including poor managerial skills (Muriithi, 2017). Hence, the implementation of a suitable quality management system is necessary to mitigate challenges. Different studies attempted to determine obstacles facing SMEs to implement QMS such as ISO 9001 (Bounabri et al., 2018; Douglas J., 2017; Mendes & Lourenço, 2014; Valery et al., 2018). Despite all these literature, no study attempted to identify barriers to ISO 9001 implementation to Somaliland SMEs. While the standard is widely implemented around the world. There is no single certified organization in Somaliland.

Therefore, this study aims to determine barriers hindering Somaliland SMEs to implement ISO 9001.

1.3 PURPOSE OF THE STUDY

This study intends to identify barriers hindering the implementation of ISO 9001 in Somaliland. The study focuses on the manufacturing industries in Somaliland. SMEs play an important role in the economic growth of most developing and least developed countries. In African countries, SMEs employ the majority of the working population. Improving SMEs structure is essential for sustainable development. Knowing that SMEs play a significant role in the economy and industrial development. Somaliland recognizes the importance of health SMEs to the economy. Thus, trying to determine ways to enable and advance its SMEs. However, SMEs face many challenges including poor management, lack of leadership and lack of continues improvement spirit. Although, it is hard to specify challenges facing Somaliland SMEs as literature available pertaining to the issues are close to zero. Implementing ISO 9001 in Somaliland SMEs will help ensure quality improvement. Thus, this study attempts to find the current situation of Somaliland SMEs by determining awareness level and barriers to ISO 9001 implementation, as there are no studies done or available to refer.

1.4 AIM AND RESEARCH OBJECTIVES

Although ISO 9001 standards are widely implemented, in Somaliland no single organization hold ISO 9001 certificate. This can be attributed to many problems but the actual obstacle to ISO 9001 implementation in Somaliland SMEs is not known due to the lack of studies in the area. Thus, this study aims to achieve the following objectives:

- To determine the level of awareness of QMS based on ISO 9001 in Somaliland SMEs using questionnaires.
- To determine barriers hindering the implementation of QMS based on ISO 9001 in SMEs in Somaliland.
- 3) To develop a suitable model for the implementation of ISO 9001 in Somaliland SMEs considering the outcome of the first two objectives.

1.5 RESEARCH QUESTIONS AND HYPOTHESIS

- 1) To determine awareness level of ISO 9001 among SMEs in Somaliland.
- 2) To determine the main barriers to ISO 9001 implementation to Somaliland SMEs.
- 3) To determine a suitable model for ISO 9001 implementation.

The following hypotheses are tested in this study: -

Hypothesis 1 – There is a negative relationship between awareness of ISO 9001 and barriers to its implementation.

Hypothesis 2 – There is a positive relationship between quality knowledge and barriers to ISO 9001 implementation.

Hypothesis 3 – There is a positive relationship between leadership and barriers to ISO 9001 implementation.

Hypothesis 4 – There is a positive relationship between human resources and barriers to ISO 9001 implementation.

Hypothesis 5 – There is a positive relationship between government regulation and barriers to ISO 9001 implementation.

1.6 SIGNIFICANCE OF THE STUDY

SMEs face many challenges to overcome in the battle for bigger shares in the global market. Providing better products to customers is not enough to survive. To be competitive, higher quality, lower cost, and continuous improvement should also be considered. QMS is one of the ways to address those issues. Recently, it was observed that the number of certified small and medium enterprises (SME) has dramatically increased and many studies have been conducted to examine if ISO 9000 has an effect on the SMEs performance (Kocak A., Carsrud A., 2016). A study done by (Bayati & Taghavi, 2007) found ISO 9001 certified industries had better performance compared to non-certified industries in Tehran, Iran. This shows the importance of ISO 9001 implementation. Thus, this study facilitates understanding of ISO 9001 in Somaliland SMEs by determining barriers hindering to its implementation. The successful development of this study will contribute to the growth of SMEs in Somaliland and in result, these will help improve Somaliland's economic.

1.7 SCOPE OF THE STUDY

This study focuses on determining barriers to ISO 9001 implementation in Somaliland SMEs. Based on the barriers determined the study will purpose framework for ISO 9001 implementation for Somaliland SMEs to help them achieve better quality. By providing

this framework it is expected that there would be an improvement in the processes and

procedures of the organizations. The study also focuses on building a fundamental

understanding of the current status of quality management system in Somaliland. This

is achieved by determining barriers to implementation of ISO 9001 among Somaliland

SMEs.

1.8 DEFINITION OF TERMS

QMS (Quality Management System): "QMS provides the organizational structure,

procedures, and tools for implementing the activities necessary to achieve the quality

objectives and requirements" (Westgard & Westgard, 2014).

Quality: "Quality is fitness for use" Juran.

PDCA (Plan-Do-Check-Act): Is Deming's Model which embodies the principles of

scientific investigation and objective decision making.

SMEs: Small and Medium Enterprises.

QMS: Quality Management System

ISO 9000: ISO 9000 is an international standard, created by the International

Organization for Standardization. It provides guidelines for organizations to build their

own quality management system.

10

1.9 CHAPTER SUMMARY

The purpose of chapter one was to provide a basic understanding of the study. It encompassed several sections each explaining specific section of the study. The sections in chapter one are as follows; Problem statement, Scope of the study, Research hypothesis, Significance of the study, Limitation of the study and Definition of terms.