THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Determinants of the Adoption of Product Quality Standards by the Manufacturing SMEs in Tanzania

Judith J. Msangi
Assistant Lecturer, Institute of Social Work, Dar es Salaam, Tanzania
Riziki M. Nyello
Assistant Lecturer, Institute of Social Work, Dar es Salaam, Tanzania

Abstract:
The paper intends to investigate factors that influence the adoption of product quality standards by SMEs. The study had the following specific findings; to examine the influence of entrepreneurial management on the adoption of product quality standards; to examine the influence of capacity enhancement on the adoption of product quality standards; and to examine the influence of market orientation on the adoption of product quality standards. The study applied two theories, namely Resource Based View (RBV) and Social Exchange Theory (SET), and the explanatory sequential design was applied. Questionnaires were distributed and collected from 208 SMEs in Dar es Salaam and 20 informants were interviewed. Data were analyzed using Multiple Regression analysis, Correlation of Coefficient, Mean and Independent T-Test. The qualitative data were analysed using the Thematic Analysis. The results showed that, entrepreneurial management, capacity enhancement and market orientation positively and significantly influence the adoption of product quality standards by SMEs. In addition, the business size has the moderating effect in that relationship. Among others, the study puts forward the recommendation that SMEs must focus on having the business managers that are visionary and committed to product quality standards.

Keywords: Manufacturing SMEs, product quality standards, market orientation, entrepreneurial management and capacity enhancement

1. Introduction

Small and medium enterprises (SMEs) are considered to be the key engine of the economic development (Chittithaworn, Islam & Keawchana 2011; Deros, Yusof & Salleh, 2006; lonita, et al 2009). Despite the fact that SMEs are important in the economy, especially the developing economy, majority of them collapse and one of the factors that contribute to their failure is lack of compliance to quality standards. The implementation of quality standards may be considered to be the main condition for the survival of SMEs since the offered product must exceed customer requirements. This is because the customer must be enthusiastic about the characteristics of the merchandise available in the market (lonita, *et al* 2009).

Wanjau, *et al* (n.d.) also argue that quality standards have an influence on SMEs development. Even though the concept of quality is broader especially when connected to the compliance of standards, product quality is considered to be very important in today's business world due to the increased business competition (Dean & Ellington 2001; Gupta 2004; Yong & Wilknson 2002; Rohitratana & Boon-ltt 2001).

In light of the increased competition associated with globalization, developing countries seeking sustained economic growth, need to free themselves from dependence on primary products and diversify into manufacturing (Guasch, *et al* 2007). But the manufacturing sector for SMEs depends on standards and quality to a much greater extent than do primary sectors such as agriculture and mining, because the manufacturing sector is more concerned with greater integration of the global production networks (ibid). Therefore, in order for the manufacturing SMEs to attract its customers and survive in today's business world which is characterized by stiff competition, they must comply with the product quality standards.

Therefore, taking into consideration the importance of product quality in SMEs development, several studies (Doss & Thein 1999; Indarti & Langenber 2005; Mazzarol, Volery, Swierczek & Ha 2003) were conducted. The studies argue that quality is one of the factors that influence SMEs success. Moreover, Wanjau, Gakure & Kahiri (n.d.) who focused on the factors that influence the adoption of quality standards by SMEs argues that Market Orientation (MO), entrepreneurial management (EM) and Capacity Enhancement (CE) are the key factors that influence the adoption of quality standards by SMEs. Therefore, the issue of product quality is widely accepted to be of great relevance on SMEs development.

Tanzania is not exceptional to this and compliance to product quality standards is important for SMEs success (Olomi 2005). According to the Confederation of Tanzania Industries (CTI), up to 80% of Tanzania's formal [manufacturing] industries are SMEs (Bekefi 2006). However, in aggregate, many SMEs in Tanzania are quite informal and still at the infant stage (NBS 2012). In order to

develop SMEs, a number of initiatives were introduced in Tanzania. These initiatives include the Tanzania Development Vision, 2025, SMEs Development Policy of 2003; Tanzania Bureau of Standard Act of 1975 as amended by Act No. 1 of 1977 and now Act No 2 of 2009; Tanzania Food, Drug and Cosmetics Act of 2003, National Health Policy, and Food and Nutrition Policy of 1992. There are also a number of programmes that also focus on SMEs which include Rural Development Strategy, Agricultural Sector Development Strategy, Strategic Trade Policy, Business Environment Strengthening for Tanzania (BEST) Programme, Micro Financing Policy, and the National Strategy for Growth and Reduction of Poverty (NSGRP) I and II.

There are also a number of institutions that focus on SMEs development including the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA); CTI, Tanzania Private Sector Foundation (TPSF), and Tanzania Food Processors Association (TAFOPA). Despite the presence of all the mentioned policies, programmes and institutions focusing on SMEs development, inability to comply with (product) quality standards is still the challenge (Olomi 2005).

But studies conducted in Tanzania (Mnenwa & Maliti 2009; Olomi 2005) did neither focus on the factors that influence the adoption of product quality standards nor the influence of business size on the adoption of product quality standards by SMEs. Small and medium enterprises may have different capacity in the adoption of product quality standards. For instance, the study conducted by Olomi mainly focused on the influence of external factors on the adoption of quality standards by SMEs.

On the other hand, the study conducted by Mnenwa and Maliti, (2009) associated the issues of compliance to quality standards with lack of capital which might not always be the case. Despite the size of capital, the adoption of product quality standards may be determined by the willingness of the entrepreneurial manager, capacity of employees in terms of skills and reaction of the market. In addition, studies conducted outside Tanzania (e.g. Doss & Thein 1999; Indarti & Langenber 2005; lonita, et al 2009; Mazzarol, Volery) mainly focused on the influence of quality on SMEs success and not the adoption of product quality standards. The reviewed studies did not also use any theory to inform their findings.

This paper applied two theories to reach to its conclusion, namely the Resource Based View (RBV) theory and the Social Exchange Theory (SET). The RBV explains the role of the given resource in achieving the competitive advantage of a firm (Barney 1986; Rumelt 1984; Wernerfelt 1984). Adoption to quality standards is one of the factors that ensure the competitive advantage of a firm (Spilling 2001). Therefore, the study considered issues of entrepreneurial management skills and capacity enhancement (knowledge and skills) of employees as resources which may determine the capacity of the firm to adopt the product quality standards. With this fact, the RBV was used to address the influence of entrepreneurial management skills and capacity enhancement.

The adoption of the stipulated quality standards may also be influenced by the reactions of the market. The way the SMEs manufacture their products may be influenced by the way the market reacts on that particular product. With this fact, SET was relevant in this study. SET argues that obligations are generated through a series of interactions between parties who are in a state of reciprocal interdependence (Saks 2006). This means that the action of one party may determine the reaction of the other party. In addition, Cropanzano and Mictchell (2005) argue that the relationships evolve over time into trusting, loyal, and mutual commitments as long as the parties abide to certain rules. Therefore, SET was used to answer the influence of market orientation on the adoption of product quality standards by SMEs.

Therefore, the study looked at the factors that influence the adoption of product quality standards by manufacturing SMEs. The article hypothesized that entrepreneurial management skills, capacity enhancement, and market orientation positively influence the adoption of product quality standards. The business size was assumed to have the moderating effect on the relationship between predetermined factors and the adoption of product quality standards. The study therefore contributes to the body of knowledge since it tested theories that have not been tested by the reviewed literature in order to see its relevance in the Tanzanian environment. In addition, the study findings may potentially contribute to the development of SMEs through the provision of inputs to SMEs policy development initiatives and potentially inform the initiatives by other SMEs stakeholders through knowledge creation.

2. Research Methods and Materials

The study applied the explanatory sequential design where the quantitative and qualitative parts of this study were sequentially used. However, the study began with quantitative study and ended up with the qualitative study. The quantitative part of this study was used in order to statistically generalize the research findings on the determinants of the adoption of product quality standards by SMEs. The qualitative data can be used to provide in-depth information on the quantitative findings which was the focus of this study Bryman (2006).

The study was conducted in Dar es Salaam. Dar es Salaam has relatively high SMEs density as compared to other regions (NBS 2012). In addition, Dar es Salaam is said to be the commercial city and therefore the business hub of the country. It is estimated that Tanzania has 23,965 manufacturing SMEs (ibid). The study managed to collect quantitative data from 208 SMEs through the use of questionnaire which was designed in the Likert scale of five points.

Stratified sampling is a probability sampling technique wherein the study divides the entire population into different subgroups or strata, then randomly select the final subjects proportionally from the different stratum. The study applied the stratified sampling techniques, because the SMEs have been categorized into two groups, namely small and medium manufacturing SMEs. The categories therefore called for the stratified sampling technique. After dividing the SMEs into the mentioned strata, the random sampling technique was applied where the SMEs were randomly selected from their strata. In the qualitative part, purposive and snowball sampling were used. The list of SMEs was obtained from Small Industries Development Organisation (SIDO).

In assessing reliability of the quantitative data, the study assessed the internal consistency that was measured by the Cronbach Alpha. If the Cronbach Alpha is at least 0.7, then the internal consistency is ensured and acceptable (Nunnaly, 1967). From the collected data, the Cronbach Alpha was 0.725 and therefore the internal consistency was ensured. In assessing validity of the quantitative data, the

study focused on face validity to see if the instrument correctly measured what it was expected to be measured. The expert opinion was used to assess face validity and no adjustment that was made.

In the case of qualitative part of this study, the trustworthiness and authenticity were measured. In order to ensure the trustworthiness, the member check technique was used. The member check technique focused on two issues, namely (i) ensuring that information from the informants are accurately recorded, (ii) ensuring that what the informant is responding, it is what s/he intends to respond. Moreover, the researchers rephrased the interview questions in order to see if there were any deviations on the responses of the informants on the same emerged issue. In ensuring the authenticity of the qualitative findings, the researchers continuously evaluated the enquiry process in order to make adjustments if any, however no adjustments.

The descriptive statistics, namely Percentages, Correlation of Coefficient, Mean, Multiple Regression Analysis and Independent T-Test were used to analyse quantitative data and the thematic analysis was used to analyse the qualitative data and Mean was used to rank the independent variables. The percentages were used to analyse the respondents and SMEs' characteristics. The correlation of coefficient was used to analyze the relationship between variables and the nature of their relationship. Independent T-Test was used to compare if there were any significant differences in terms of the adoption of product quality standards between small and medium businesses. Table 1 indicates how the variables have been operationalized: -

S/N	Variable	Measurement	Authors
1	Entrepreneurial Management	• Managerial training • Objective setting • Commitment to quality • Systematic business planning and vision • Communicating quality issues	Warnack, 2003; Wanjau, Gakure & Kahiri, n.d; Spilling, 2001.
2	Market Orientation	• The creation of superior customer value at profit • Creating internal environment that respond to market information • Presence of structures that is responsive to market • Empowering employees to manage changes	Burke & Jarhatt, 2004; Forker, 1997.
3	Capacity Enhancement	• Employees attended training and education programmes • Participation in decision making • Suggestion system • Incentive mechanism • Work autonomy	Cruickshank, 2000; Slack & L ewis, 2002; Temtime & Solomon, 2002.

Table 1: Measurement of Variables

3. Research Findings

3.1. Demographic Characteristics of the Respondents and Business Characteristics
The study managed to involve 208 (80%) SMEs out of the selected 260 SMEs. Out of 208 SMEs, 143 (68.8%) businesses were small businesses and 65 (31.3%) businesses were medium businesses. Most of the SMEs (47.6%) had 2 - 4 years since their establishment, 5 – 7 years of business experience were 57 (26.0%) businesses of the SMEs and more than 8 years were 55 (26.4%) businesses. Basing on businesses location, 99 (47.6%) SMEs were coming from Kinondoni Municipality, 56 (26.9%) were coming from Ilala and 53 (25.5%) were coming from Temeke. Considering the ownership structure, 143 (68.8%) SMEs were sole proprietorship businesses, 26.4% (i.e. 55) were partnership businesses, and only 10 (4.8%) SMEs were limited companies.

The statistics indicated that majority of businesses involved in this study were small businesses as compared to medium businesses. These data are supported by Micro, Small and Medium Enterprises (MSMEs) survey report of 2012 which argues that majority of businesses in Tanzania are small. In addition, the large number of the contacted businesses had less business experience (2 – 4 years) and this is justified by the fact that fewer SMEs are able to sustain in the market while majority of them fail to graduate into the upper level (Olomi, 2009). Moreover, the data indicate that majority of SMEs were sole proprietorship. In the process of collecting data from the SMEs, the study involved business owners/operators. Majority of small business operators/owners were females as compared to male.

3.2. Factors influencing the Adoption of Product Quality Standards

3.2.1. Entrepreneurial Management and Adoption of Product Quality Standards
In this case, the study wanted to see the way the entrepreneurial management influences the adoption of product quality standards by SMEs. The results indicated that there was a positive relationship between entrepreneurial management and adoption of product

quality standards. The Pearson Correlation of Coefficient was 0.561 and significant at 0.01. This means that entrepreneurial management positively and significantly influences the adoption of product quality standards.

The attendance of managerial trainings on quality issues and setting of objectives relating to product quality were the major entrepreneurial management factors that influence the adoption of product quality standards with a Mean of 3.8 and 4 respectively. This was supported by one of the informant who argued that *"initially I did not understand the importance of complying with the product quality standards. But after attending the managerial training on quality assurance that was conducted by the Tanzania Bureau of Standards (TBS), I realised that compliance to quality standards is for the benefits of our businesses"* (Female Informant, 35 Years of Age, Small Business Owner). The following Table presents the summary of the research findings on the relationship between Entrepreneurial Management and Adoption of Product Quality Standards: -

		Entrepreneurial Management	**Product Quality Compliance**
Entrepreneurial Management	Pearson Correlation	1	.561[**]
	Sig. (2-tailed)		.000
	N	208	208
Product Quality Compliance	Pearson Correlation	.561[**]	1
	Sig. (2-tailed)	.000	
	N	208	208
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 2: The Relationship between Entrepreneurial Management and Adoption of Product Quality Standards

3.2.2. Market Orientation and Adoption of Product Quality Standards

In this case the study wanted to examine the influence of market orientation on the adoption of product quality standards. The findings revealed that there was a positive and significant relationship between market orientation and adoption of product quality standards. The Pearson Correlation of Coefficient was 0.892 and significant at 0.01. Thus, the more the SMEs are oriented with the market, the higher the possibility of the SMEs to adopt the product quality standards. The following Table presents the summary of the research findings on then relationship between Market Orientation and Adoption of Product Quality Standards: -

		Product Quality Compliance	**Market Orientation**
Product Quality Compliance	Pearson Correlation	1	.892[**]
	Sig. (2-tailed)		.000
	N	208	208
Market Orientation	Pearson Correlation	.892[**]	1
	Sig. (2-tailed)	.000	
	N	208	208
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 3: The Relationship between Market Orientation and Adoption of Product Quality Standards

The findings also revealed that the business focus on the creation of customer value at a profit and ability of the business to respond to the market information were the major market orientation factors that influence the adoption of product quality standards by SMEs. This was supported by one of the respondent who argued that *"if the business needs to survive in the market it has to change according to the change in the market. Even though it is difficult to accommodate all the changes, but it is important to do so to the market changes that may have the significant impact on the business. This is what referred to compliance of product quality standards"* (Male Informant, 41 Years of age, The Medium Business Operator).

However, this didn't undermine the importance of empowering employees to manage changes and creation of structures that are responsive to market. The Mean values of all the mentioned factors are relatively closer to each other. The following Table presents the summary of the findings: -

		Business Focus to create customer value at profit	**Business create environment to respond to market information**	**Structure are market responsive**	**Employees are empowered to manage change**
N	Valid	208	208	208	208
	Missing	0	0	0	0
Mean		3.8125	3.0577	3.0048	3.0240

Table 4: Assessment of the Influence of Market Orientation Factors on the Adoption of Product Quality Standards

3.2.3. Capacity Enhancement and Adoption of Product Quality Standards

The study also examined the influence of capacity enhancement on the adoption of product quality standards. The findings showed that capacity enhancement positively and significantly influences the adoption of product quality standards by SMEs. The Pearson correlation of coefficient was 0.616 and significant at 0.01. This meant that the SMEs that focus on capacity enhancement programmes are more likely to adopt product quality standards as compared to SMEs that did not have the capacity enhancement programmes. The following Table presents the summary of findings on the relationship between Capacity Enhancement and Adoption of Product Quality Standards: -

		Product Quality Compliance	Capacity Enhancement
Product Quality Compliance	Pearson Correlation	1	.616**
	Sig. (2-tailed)		.000
	N	208	208
Capacity Enhancement	Pearson Correlation	.616**	1
	Sig. (2-tailed)	.000	
	N	208	208
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 5: The Relationship between Capacity Enhancement and Adoption of Product Quality Standards

Moreover, the research findings revealed that employees' training on quality issues and presence of incentive mechanism were the major capacity enhancement factors that influence the adoption of product quality standards. However, work autonomy was the least in terms of its influence towards the adoption of product quality standards by SMEs. The findings revealed a close supervision in the management of SMEs, particularly in the small businesses where the number of employees is relatively smaller as compared to that of medium businesses. This is supported by one of the informants who argued that *"I need to make sure that my employees are performing in accordance to what I tell them to do. Otherwise my business could collapse because it is small"* (Female Informant, 38 Years of age, Small Business Owner). The following Table presents the summary of research findings: -

		Employees attend training on quality issues	Employees participate in decision making	There is suggesting system in quality issues	There is incentive mechanism towards quality compliance	Employees enjoy work autonomy
N	Valid	208	208	208	208	208
	Missing	0	0	0	0	0
Mean		3.4135	2.4038	2.1010	3.0000	1.4712

Table 6: Assessment of the Influence of Capacity Enhancement Factors on the Adoption of Product Quality Standards

3.2.4. The Adoption of Product Quality Standards among SMEs

The study was interested to examine if there was any difference in terms of the adoption of product quality standards among the two business categories, namely small businesses and medium businesses. The findings indicated that there was a difference in terms of the adoption of product quality standards between small and medium businesses. The independent T-Test was 0.01 which was less than 0.05 and thus implied that the adoption of product quality standards among small and medium businesses was different. The medium businesses seem to be the ones that highly adopted the product quality standards as compared to small businesses. The following Tables present the summary of research findings: -

	Business Category	N	Mean	Std. Deviation	Std. Error Mean
Product Quality Compliance	Small Business	143	3.2587	.70612	.05905
	Medium Business	65	3.9923	.80643	.10003

Table 7: Group Statistics on Independent T-Test Results

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product Quality Standards	Equal variances assumed	.536	.465	-6.638	206	.000	-.73357	.11051	-.95144	-.51569
	Equal variances not assumed			-6.315	110.340	.000	-.73357	.11615	-.96375	-.50338

Table 8: The Adoption of Product Quality Standards among SMEs

Furthermore, the regression analysis was performed in order to examine the moderating effect of the business size on the influence of the identified factors on the adoption of product quality standards. The multiple regression analysis indicated that the business size has the significant moderating effect on the factors that influence the adoption of product quality standards. When the multiple regression analysis was run for the first time, the R square was 89.3%. This means that entrepreneurial management, capacity enhancement, and market orientation predicted the adoption of product quality standards by 89.3%. When the regression analysis was run for the second time including the business size, the R square changed to 95.4% and the change was significant at 0.01. This meant that the model significantly predicts the adoption of product quality standards by 95.4%. This is summarized by the following Table: -

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.945[a]	.893	.892	.26727	.893	568.810	3	204	.000
2	.976[b]	.954	.953	.17674	.060	263.536	1	203	.000
a. Predictors: (Constant), Capacity Enhancement, Entrepreneurial Management, Market Orientation									
b. Predictors: (Constant), Capacity Enhancement, Entrepreneurial Management, Market Orientation, Business Category									

Table 9: Model Summary on the prediction of the identified factors on the Adoption of Product Quality Standards

The multiple regression analysis was conducted and when it was run for the first time indicated that entrepreneurial management, market orientation and capacity enhancement significantly predict the adoption of product quality standards. However, while market orientation and capacity enhancement significantly predicted the adoption of product quality standards at 0.01, the entrepreneurial orientation significantly predicted the adoption of product quality standards at 0.013. Despite the fact that the coefficients were less than 0.05, the extent of prediction of market orientation and capacity enhancement, when the regression analysis was run for the first time, was higher than that of entrepreneurial management.

When the regression analysis was running for the second time including influence of business size, the entrepreneurial orientation, capacity enhancement and market orientation significantly predict the adoption of product quality standards at 0.01. This means that the business size has the moderating effect on the factors that influence the adoption of product quality standards by SMEs, particularly on the influence of entrepreneurial management on the adoption of product quality standards by SMEs. In the process of conducting multiple regression analysis, the study tested whether the problem of multicollinearity exists or not. The Variance Inflated Factor (VIF) in each independent factor was less than 10 and the Tolerance Value was greater than 0.1 (Williams, 2015) as shown in Table 10 which indicated that the problem of multicollinearity did not exist.

When the Multiple Regression was run, the following model was developed: -
Adoption of product quality Standards by SMEs = -2.389 + 0.168EM +0.921MO + 0.616CE+0.576BS.
Whereby: -
EM   Stands for Entrepreneurial Management
MO   Stands for Market Orientation
CE   Stands for Capacity Enhancement
BS   Stands for Business Size.
More noticeable change can be seen in the change of sign of the coefficient value of the entrepreneurial management. When the multiple regression was run for the first time, the coefficient value of the entrepreneurial management was -0.089. However, when the Multiple Regression was run for the second time incorporating the business size, the sign of the coefficient value of the entrepreneurial management changed into positive i.e. 0.168. This meant that the trend of an influence of the entrepreneurial management on the adoption of product quality standards was influenced by the moderating effect of the business size. The following Table presents the summary of findings: -

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-2.822	.221		-12.773	.000	-3.258	-2.386		
	Entrepreneurial Management	-.089	.035	-.075	-2.506	.013	-.158	-.019	.580	1.723
	Market Orientation	1.050	.039	.814	26.815	.000	.973	1.128	.568	1.760
	Capacity Enhancement	1.312	.096	.340	13.655	.000	1.123	1.502	.843	1.187
2	(Constant)	-2.389	.149		-16.089	.000	-2.682	-2.096		
	Entrepreneurial Management	.168	.028	.143	5.949	.000	.112	.224	.398	2.510
	Market Orientation	.921	.027	.714	34.003	.000	.868	.975	.519	1.925
	Capacity Enhancement	.616	.077	.160	8.042	.000	.465	.768	.579	1.726
	Business Size	.576	.036	.330	16.234	.000	.506	.647	.554	1.804
a. Dependent Variable: Adoption of Product Quality Standards										

Table 10: The Multiple Regression Results on the prediction of the identified factors on the Adoption of Product Quality Standards

3.3. Discussion of Findings

The findings of this study indicated that Entrepreneurial Management, Capacity Enhancement and Market Orientation positively and significantly influence the adoption of product quality standards. In the case of entrepreneurial management, the findings are in line with Hammer (2001); Islam, *et al* (2011); Manole, *et al* (2014); Spilling (2001); Warnack, (2003). All those studies recognize the role of entrepreneurial management in influencing the adoption of product quality standards. The mentioned studies included several variables of entrepreneurial management such as managerial training, objective setting, commitment to quality, systematic business planning and vision, communicating quality issues and willingness of the entrepreneur/management to adopt the product quality standards.

In the case of capacity enhancement, the findings were in line with Cruickshank (2000), Lonita (2009), and Temtime & Solomon (2002). All these studies recognize the role of capacity enhancement on the adoption of product quality standards. The studies argued that issues such as employees' training, effective decision making, employee empowerment on change management and work autonomy are some of the key issues in capacity enhancement that determine the adoption of product quality standards.

The findings on the influence of market orientation on the adoption of product quality standards are also in line with the findings of other studies (such as Burke & Jarhatt 2004; Forker 2007; Slater & Narver 2001; Warnack 2003). These studies argue that market orientation is one of the key aspects that influence the adoption of product quality standards by SMEs. The market orientation issues such as value creation for consumers, creation of internal environment that responds to market information and presence of structures that respond to market are one of the market orientation factors that influence the adoption of product quality by SMEs.

Thus, the findings of this study are in line with the findings of the mentioned studies. However, the mentioned studies did not consider the moderating influence of the business size on the influence of the mentioned factors on the adoption of product quality. This study revealed that the business size has the moderating effect on the influence of entrepreneurial management, capacity enhancement and market orientation on the adoption of product quality standards. The moderating effect of the business size is more significant on the influence of entrepreneurial management on the adoption of product quality standards by SMEs.

Generally, it was noticed that the influence of entrepreneurial management skills and capacity enhancement of employees as resources on the adoption of product quality standards is moderated by the business size. Therefore, the study findings were in line with the RBV since the resources possessed by a firm determine the extent at which the firm complies with the product quality standards. However, the capacity to adopt the product quality standards is determined by the size of the business. Furthermore, the study findings were in line with SET since it was revealed that the market orientation has an influence on the adoption of product quality standards. This means that the actions of market determine the reactions of SMEs in the adoption of product quality standards.

4. Conclusion

The study had three specific objectives namely, to examine the influence of entrepreneurial management on the adoption of product quality standards, to examine the influence of capacity enhancement on the adoption of product quality standards, to examine the influence of market orientation on the adoption of product quality standards. The findings revealed that entrepreneurial management positively and significantly influence the adoption of product quality standards. The managerial trainings on product quality standards

and setting of business objectives on product quality compliance were the major entrepreneurial factors that influence the adoption of product quality standards by SMEs.

The study also revealed that capacity enhancement positively and significantly influences the adoption of product quality standards. Employees' trainings and presence of incentive mechanisms on the compliance to product quality standards were the major factors that the adoption of product quality standards by SMEs. The study further revealed that market orientation positively and significantly influences the adoption of product quality standards. The business focus on the creation of customer value, and ability of the business to respond to the market information were the key market orientations that determine the adoption of product quality standards by SMEs.

Moreover, the business size has the moderating effect on the influence of entrepreneurial management, capacity enhancement and market orientation. However, the moderating effect is more significant on the influence of entrepreneurial management on the adoption of product quality standards. Therefore, the business size determines the firm's capacity to adopt product quality standards. The majority of medium businesses adopted the product quality standards as compared to small businesses.

5. Recommendations

The study therefore makes the following recommendations: -

In order for the SMEs to survive in the market, they have to ensure that they adopt the product quality standards. With this fact, the SMEs must make sure it has the competent entrepreneurial management that is willing to adopt and committed to product quality standards. The management must have the business objectives that recognize the importance of complying with product quality standards. Moreover, the SMEs must also enhance the capacity of their employees in order to ensure that they produce products of the required quality.

They must focus on the employees' training programmes on the quality issues, participation of employees in decision making in order to own the business initiatives towards the manufacturing of quality product, introducing the incentive mechanism for product quality compliance and to some extent allow work autonomy. The SMEs are also encouraged to orient themselves with the market characteristics including the demand patterns. They are advised to strengthen their internal environment including structures that are responsive to market information and changes. They may also empower the skills and knowledge of their employees so that they can manage market changes.

6. Area of Further Study

The study was conducted in Dar es Salaam which is the urban area. It may be important to conduct the same study in rural areas where the environmental characteristics may not be the same to that of the urban areas.

7. References

i. Ahire, S, Waller, M & Golhar, D.Y. (2001). 'Quality management in TQM firms: An empirical study', International Journal of Quality and Reliability Management, 13, pp 8-27.

ii. Barney, J.B. (1986). 'Firm resources and sustained competitive advantage', Journal of Management, Vol.17, No.1, pp.99-120.

iii. Bryman, A. (2006). 'Integrating quantitative and qualitative research: How is it done?' Sage Publication. Retrieved from http://studysites.sagepub.com/bjohnsonstudy/articles/Bryman.pdf on 7th November 2015.

iv. Burke, G.I & Jarhatt D.G. (2004). 'The influence of information and advice on competitive strategy definition in small and medium sized enterprises', Qualitative Market Research: An International Journal, 7(2), pp 126-38.

v. Cruickshank, M.T. (2000). 'Developing a Quality Culture within a School of Nursing in Higher Education', Unpublished doctoral dissertation, University of Western Sydney, Hawkesbury, Australia.

vi. Deros, B.M., Yusof, S.M.M. & Salleh, A.M. (2006). 'A benchmarking implementation framework for automotive manufacturing SMEs', Benchmarking: An International Journal, vol. 13, no. 4, pp. 396-430, 2006.

vii. Forker, L.B. (1997). 'Factors affecting supplier quality performance', Journal of Operations Management, 15, pp 24369.

viii. FSDT. (2012). 'National Baseline Survey Report: Micro, Small and Medium Enterprises in Tanzania', Retrieved From http://www.mit.go.tz/pdf/MSME%20Pages%20ST1_081513.pdf (Accessed on 06th July, 2015)

ix. Guasch, D.F., Racine, J.C., Sanchez, M. & Diop, J.S. (2007). 'Quality practice for a competitive advantage in smaller firms', Journal of Small Business Management, 39(4), pp 293-311.

x. Gupta, P. (2004). 'Six sigma business scorecard', New York: McGraw-Hill

xi. Hammer, H. (2001). 'A paradigm of entrepreneurship: Entrepreneurial management', Strategic Management Journal, 11, pp 17-27.

xii. Manole, S.D., Nisipeanu, E., & Decuseara, R. (2014). 'Study competitiveness of SMEs in Valcea County', The Journal of Theoretical and Applied Economics, Vol, XXI, 4 (593), 113 – 130.

xiii. Mazzaro, K.B., Voley, S., Doss, V & Thein, R. (1999). 'The long–run stock price performance of firms with effective TQM programs', Management Science,47(3), pp 359-368.

xiv. Mnenwa, R & Maliti, E. (2009). 'Assessing the institutional framework for promoting the growth of MSEs in Tanzania', The case of Dar es Salaam research report 08.6, Dar es Salaam, REPOA

xv. Olomi, D. (2005). 'Position paper on enhancing SMEs access to government procurement and food standards presented at the stakeholders' Workshop in Dar es Salaam

xvi.   Olomi, D. (2009). 'African entrepreneurship and small business development', Otme publishers, Dar es Salaam.

xvii.   Rohitratana, K & Boon-Itt, S. (2001). 'The implementation of ISO 9000 in Thai seafood processing industry' an empirical study. Integrated management: Proceedings of the 6 469th International Conference on ISO 9000 and TQM, 1719 April 2001 (pp. 477-482). Paisley, United Kingdom: University of Paisley.

xviii. Rumelt, R.P. (1984). 'Towards a strategic theory of the firm', in competitive strategic management (ed., by R. B. Lamb, Englewood Cliffs, NJ: Prentice-Hall), pp.556-70.

xix.   Ryan, C.C., Deane, R & Ellington, N.P. (2001). 'Quality management training in small to midsized manufacturing firms', Quality Management Journal,8(2), pp 44-52.

xx.   Saks, A. (2006). 'Antecedents and consequences of employee engagement' Journal of Managerial Psychology,21(3), 600-619.

xxi.   Slack, N & Lewis, M. (2002). 'Operations strategy' harlow: Financial Times Prentice Hall.

xxii.   Slater, S.F & Narver, J.C. (2001). 'Market orientation and the learning organization', Journal of Marketing, 59, pp 63-74.

xxiii. Spilling, K. (2001). 'How much does industry matter?' Journal of Strategic Management, Vol. 12, No.3, pp.167-85.

xxiv.   Swierczek, A & Ha, Y. (2003). 'The impacts of acquiring ISO 9000 certification on the performance of SMEs in Tehran' TQM Magazine,19(2).

xxv.   Temtime, T.Z & Solomon, G.H. (2002). 'Total management and the planning behaviour of SMEs in developing economies' The TQM Magazine, 14(3), pp 181-191.

xxvi.   Wanjau, K.L, Gakure, R.W & Kahiri, J. (n.d). 'The role of quality in growth of SMEs and economic development of Kenya'

xxvii. Warnack, A. (2003). 'TQM practices in manufacturing companies in Malaysia' An Exploratory Total Quality Management, 11(8), pp 104-51.

xxviii. Wernerfelt, B. (1984). 'A resource-based view of the firm', Strategic Management Journal Vol. 5, No. 2, pp.171-80.

xxix.   William, R. (2015). 'Multicollinearity' Retrieved from https://www3.nd.edu/~rwilliam/stats2/l11.pdf on 7th November 2015.

xxx.   Yong, R & Wilknson, G. (2002). 'A comparison of practice-performance models between small manufacturers and sub contractors', International Journal of Operations & Production Management, 22(12), pp 1367-1388.