EFFECT OF SME'S PRODUCT QUALITY IMPROVEMENT ON CUSTOMER SATISFACTION IN ILORIN METROPOLIS

[1]Yusuf Ismaila *PhD.*

[1]Department of Business & Entrepreneurship
Faculty of Humanities, Management and Social Sciences
Kwara State University, Malete

Abstract

Product quality improvement is one of the impediments that deter the successes of most SME's in Nigeria. The matching behavior of most of the products found in the markets is actually nothing to write home about when compared with other brands of products found in the market largely produced by companies rated above SME's. Ilorin metropolis is located in North-central Nigeria with a large concentration and existence of most of these products. This paper therefore examined the effects of SME's product quality improvement on customer satisfaction in Ilorin metropolis. The study postulated this hypothesis thus; determine whether SMEs product quality improvement has any effect on customer satisfaction in Ilorin metropolis, Kwara state specifically to achieve the set objectives and answer the research question. The study used quantitative method and data were collected through self-administered structured questionnaire. 387 copies of questionnaire were administered to the selected SMEs. PLS-SEM was used to test the hypothesis. The result of the study shows that product quality improvement has a significance effect on the performance of SMEs in Ilorin metropolis. The study recommended that constant product quality improvement technique should be deployed to improve on products quality and grab more market share when customers derive optimum satisfaction in most SMS's product within Ilorin metropolis.

Keywords: *SMEs, Product Quality Improvement, Customers' Satisfaction,*

INTRODUCTION

Product improvement is a manifest of product innovation and it implies the complete process of bringing improved product/service to the market ranging from the generation of product idea to the commercialization of the product or service. It has been established that for SMEs to maintain competitiveness, there must be a continuous and consistent flow of improved products/services or improvement on existing products that can meet up with the changing customer demands. These (product quality improvement) and other factors not considered in this study is what this paper seek to specifically explore.

However, the existence of a product is largely dependent on the effective workability of an entrepreneur in the business circle for survival. Product improvement leads to increased global and regional competitions which led firms to determine and create or sustain competitive edge by engaging on self-product improvement workable technique. A fast-changing environment with constant abrupt changes makes it indispensable for firms to build up their capability to improve on the products they produce to the market for consumption. Consequently, business proliferation as a result of profit motive, opportunity and chance are the realities in Nigeria's burgeoning business environment. Limited resources and inadequate build-up of capital has declined majorly as a result of the devastating effects of Covid-19 that ravaged most businesses classified as SME's and with little or no support for survival.

It is in-fact pertinent to understand that most SMEs survival depends on quality of product or service they produce to the market for consumption. Evidence from industrialized and developing countries showed that SMEs deliver a fundamental contribution to economic development, as they are major vehicles for the generation of employment and income. This assertion is not limited to the industrialized nations alone but the third world countries too. This posits that Small and Medium Scale Enterprises products when found stagnated triggers a lot of defects in the minds of consumers and which in turns have a severe devastating consequences. Therefore this paper intends to look at how defective non-improved products could be in this era of market depletion, competition and product challenges and the manner all of these problems could be addressed in Nigeria.

Research Question
The following is what this study seeks to answer;

i. To what extent does SME's product quality improvement affects customers' satisfaction in Ilorin metropolis?

Objectives of the Research Study
The research objective is to examine the effects of SME's product quality improvement on customer satisfaction in Ilorin metropolis.

i. To determine the effect of SMEs product quality improvement on customer satisfaction in Ilorin metropolis.

Research Hypotheses
Ho$_1$:   SMEs product quality improvement has no significant effect on customers' satisfaction in Ilorin metropolis.

LITERATURE REVIEW

The study explored the following literatures such as the product quality, product improvement and improved product development. Others are the improved product lines and the concepts of small and medium enterprises.

Product Quality

A new product idea through product adaptation or improvement on an existing one is referred to as improved product. It can also be an entirely new product both to the company and to the market (Ebarefimia, 2014). Improved product quality borne out of innovation has been largely viewed as a very big concept of doing something extra ordinary. However an improved policy, process, method or law could be an innovation and it only varies in degree. Ebarefimia (2014) segmented innovation into substantial innovation and incremental innovation all borne at improving a product or service. The former involves significantly improved products that create high customer value such as. I-phone. While the latter provides improved performance or greater perceived value e.g. an improved flavor to a drink, it could also be lower cost. O'Shea (1999) and Ewah, Ekang & Umanta (2018) argued that innovation takes many forms of which improved product is part. By implication, product quality improvement that is borne out of innovation is one form of organizational innovation. Product quality improvement becomes complete when ideas are generated, accepted and implemented (Trott, 2013).

Otokiti (2010) opined that developing improved products is important for firm performance which shows that small and medium enterprises are not exempted. The needs, expectations and tastes of customers change frequently also competition for profit; market share is on the increase hence the need for improved products. Improved products start with identifying the segment; choosing the target customers; understand their needs and requirement; determine the positioning in the market and then develop improved product.

Figure 1: Conditions for Improved Product Development
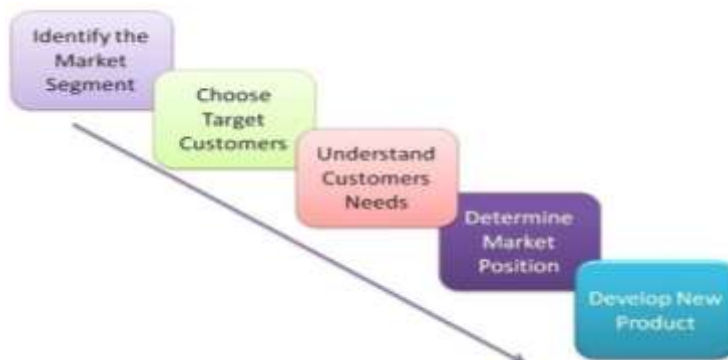
Source: Otokiti, 2010

Product Improvement

Product improvement implied modifying features to keep product competence in a familiar market. The performance stage in the product life cycle is characterized by increased sales and market share as well as profit (Frill & Frill, 2013; Kotler & Keller, 2006; Brassington & Pettitt, 2006; Trott, 2013). Brassington & Pettit (2006) suggest that even though products at this stage are still young, it is essential for firms to start thinking of modifications and improvement to keep them a step ahead of competition. The implication of not taking note of this could prove hazardous for the company's product in the future (Brassington & Pettitt, 2006). Kotler & Keller (2006) identified that at the performance stage of companies, managers try to stimulate sales by modifying products characteristics through quality improvement; feature and style improvement. Similarly, product quality improvement is largely an addendum to product development that seems to look at product acceptability to the general public.

- **Quality Improvement**: Relates to increasing products functional performance

- **Feature Improvement**: Relates to adding improved features like size, weight, materials, additives, accessories) that expand the production performance, versatility, safety and convenience.

- **Style Improvement**: Relates to increasing the products aesthetic appeal. The introduction of improved car models is largely about style competition (Kotler & Keller, 2006). This type of improvement is however difficult to accomplish as it is difficult to ascertain if the improved style will be accepted by the mainstream customers.

Improved Product Development

Improved product is mostly borne out of Product innovation that means the life blood of numerous firms and represents the best hope of future performance of such firms. The works of (Agrawal, 2003; Shah, 2010; Ewah, Ekeng, & Umanta, 2018) stresses the importance of firms to consistently develop improved products in order not to erode their competitive position in the market arena. Launching improved products in the market represents an important source of increasing the size of a business and the profits of a company. The Economist Intelligence Unit (2012) identified that a significant priority for SMEs is developing improved products and services. Forty-two percent of managers count this among their top goals for the next 12 months. Many firms now place value laden emphasis on developing improved products in the market place as a result of the decreasing or shrinking and rapid obsolescence of product life cycle than in the past as well as increasing rate and pace of competition.

Mohammad, Ahmed & Dawal (2011) sees developing improved products for a company as Product innovation (PD) as a business process for, whether it is an upgrade of an existing product or an improved concept (either for the company or for the customer). It includes all

the activities from the development of an idea concept for a product, to the realization of the product during the production stage and its introduction into the market place. Although this definition left out the role of acceptability in the market, Product innovation has been seen as *"A disciplined and defined set of tasks and steps that describes the normal means by which a company repetitively converts embryonic ideas into saleable products or services."* (Belliveau, Griffin, & Somermeyer, 2002). Belliveau et al (2002) understood the seriousness of producing products that indeed has a market. Product quality improvement is actually the process of transforming business opportunities into tangible products. SMEs need to develop their products for competing in the market, and then they need to develop improved products.

The concept of improved product is multidimensional and is approached differently. Some of the disciplines who have interest in product quality development are: production management; marketing and entrepreneurs. From the angle of the production management, product innovation is viewed from the manufacturing perspective i.e. how we can effectively manufacture the product in question. By implication, they have little or no regard for the market or customers who will actually demand the product and this could be because they have little or no knowledge about the market. Marketing however looks at the concept of product innovation slightly differently by taking cognizance of the market for the product i.e. the needs of the customers in question and how to most effectively meet those identified needs using the improved product. A more balanced view of product innovation is established when these divergence are curtailed to reach a consensus. More recent studies show that in developing improved products, a multi-disciplinary team to collaborate with the research and development unit of the firm so as to determine the technical feasibility of the product as well as making improvement and fine tuning the product concept.

Improved Product Lines

A product line can be regarded as a combination of similar products belonging to an identifiable product group. In other words, product line is a group of product sharing a common, managed set of features that satisfy specific needs of a selected market or mission. It can also be clusters of products and or services that are offered, in combination to a designated market segments (Frill & Frill, 2013). The product line of a company must be managed in such a way that it will not be too short or too long. The firm looks at its present product range and decides whether to expand the product line upward or downward or in both directions (Brassington & Pettit, 2006).

Upward extension involved a higher priced, higher quality, more exclusive product. Downward extension on the other hand requires basic, no frills products at a rock-bottom and mass market price. The implication of a short product line is that profitability may increase only if more products are added to the existing lines. Conversely, when the product line is too long, profit can only rise if some products in the product lines are dropped. A long product line can

also be termed product line stretching which may be a strategic policy of a company that wants to offer its customers variety of products hence position itself at the top of the market; however this can all be done at the expense of profit. For firms who place value laden emphasis on profit taking may decide to keep a short product line (Frill & frill 2013). Furthermore, they identified certain categories of product line that includes:

i. **Proprietary or Catalogue Products:** These products are produced in speculation or expectations for orders. Each type of product in the product line can have a number of different applications. Product line in this category relates to the level of stock to be made and held; the type of stock to be carried (adding and deleting lines) and the repositioning of products within the line.

ii. **Custom-built Products:** There are certain product lines that are directed towards meeting specific needs of the customers. These are referred to custom built products. Similarly, Frill & Frill (2013) elude that custom built is often confused with custom design. Custom built are assembled for customers using performed parts, sub-assemblies and components. They are usually configured in such a manner that they meet the specification of the customers. Here, product line decisions are based around understanding the customer's specific needs and designing proposals to meet such needs.

iii. **Custom-designed Products:** These products are built to meet the specific needs of the customers just like the custom built however the distinction lies in the target of each line. Custom design tends towards a smaller group of customers when juxtaposed against custom built. Products such as this are usually high capital value. Product line decisions here are based around identifying and understanding the very specific needs of customers and then being able to present proposal that provide a tight fit with those needs

iv. **Business Services:** Other services like processes; invoicing; delivery; warranty-based support. Rendering business services is a core for some organizations whereas it's an extension for others. By implication, a firm's improved product line can be in the direction of added services.

Small and Medium Scale Enterprises

There is no universally acceptable definition the concept small and medium scale enterprises as it all depends on individual perception, industry, geographical location and orientation, but there are rather many accepted definitions of SMEs (Ale-Ebrahim, 2009a; Bowale & Akinlo, 2012; Sayedi & Isah, 2013 and Qureshi, 2012). Definition also changes overtimes, owing to changes in price level, advances in technology and other considerations. Criteria that may be used in the definition of small scale industries (SSIs) or small scale enterprises (SSEs) often include turnover, gross output and employment. These factors are usually used because they are functional and easy to measure. Namakka, (2019) submitted in

Ayozie (2006) that the Nigeria third National development plan described small scale business as a manufacturing establishment employing less than ten people, or whose investment in machinery and equipment does not exceed six hundred thousand naira (N600,000). Similarly in Namakka (2019) who disposed that the Central Bank of Nigeria (CBN) in its credit guidelines classified small scale business as those businesses with an annual income/ asset as less than half a million Naira (N500,000). National Bureau of Statistics (NBS) and the small and medium enterprises development association of Nigeria (SMEDAN) (2010) articulated that in developed economies, Nigeria with the introduction of the National Policy on MSMEs has addressed the issue of definition as to what constitute micro, small and medium enterprises. The definition adopts a classification based on based on dual criteria, employment and assets (excluding lands and building) as shown below;

Table 2.1

S/N	Size Category	Employment	Assets (NMillion) (excluding land and building)
1.	Micro Enterprises	Less than 10	Less than 5
2.	Small Enterprises	10 to 49	5 to less than 50
3.	Medium Enterprises	50-199	50 to less than 500

Source: National Policy on MSME's

SMEs are catalysts for economic development as they institutionalize entrepreneurship that includes product development and quality product development. SMEs represent a large weight of the economic activity of a country such as Nigeria and Ilorin metropolis in Kwara to be specific. SMEs in many countries account for an overwhelming number of business establishments and employees and are a major player in economic activity. However, United Nations (2007) posited that "*SMEs are often unable to take advantage of market opportunities that require large volumes of production, broad product range and regular supply."*

This has over the years showed that many SMEs hardly survive the second year of their operation due to challenges relating to the market that include quality product development, human resources, or lack of capital (Ogboru, 2006), legal conditions, non-stabilized institutional regimes (Gjini, 2014), crude technology (Bowale & Akinlo, 2012) and labour intensive (World Bank, 2013). These gaps and many more necessitated this study with particular reference to quality product development

METHODOLOGY

The study used quantitative method. Data was collected through self-administered structured questionnaire. 387 copies of questionnaire were administered to the selected SMEs in Ilorin metropolis. PLS-SEM was used to test the hypothesis postulated to determine whether there is a relationship between product quality improvement and customer satisfaction within Ilorin metropolis in Kwara state.

DATA PRESENTATION AND ANALYSIS

The Hypothesis:

Ho₁: There is no significant relationship between SMEs Product quality improvements on customers' satisfaction.

Figure 2:
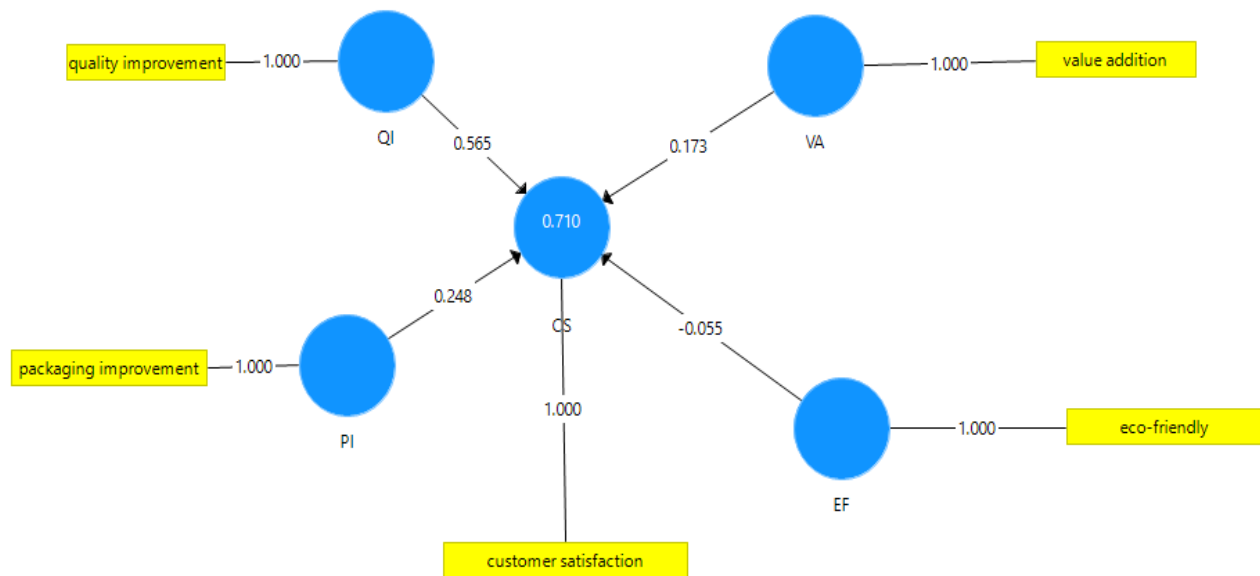
Source: field survey, 2021

DISCUSSION

The result in the figure above indicates that SME's product quality improvement and other three factored variables such as the value addition, eco-friendly product, packaging improvement account for 71% (r^2= 0.71) agreement on customer satisfaction. The coming of the other variables was to enhance clarification as to the achievement of the stated hypothesis. The coefficient of determination, R^2, is 0.71 for the customer satisfaction is endogenous latent variable. This means that the four latent variables (SME's quality product improvement, value addition, eco-friendly product, packaging improvement) explain 71% of the variance in SMEs customer satisfaction.

Table 4.1 Path Coefficients

	Original Sample (O)	Sample (M) Mean	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
QI -> _CS	0.565	0.566	0.102	5.540	**0.000**
EF -> _CS	-0.055	-0.058	0.119	0.460	**0.645**
PI -> _CS	0.248	0.245	0.061	4.040	**0.000**
VA -> _CS	0.173	0.176	0.060	2.861	**0.004**

Considering the table above, the Structural Equation Model (SEM) result indicated that that SME's product quality improvement   being a variable of the independent construct has a positive significant relationship with customer satisfaction. Result indicated that SME's product quality improvement   had   a significant relationship on customer satisfaction ($\beta = 0.565$, $t = 5.540$, $p < $**0.000**), similarly, other variables considered for the study also showed that packaging improvement and value addition are positively related to customer satisfaction. The tables shows positive significant relationship between   packaging improvement and value addition on customer satisfaction at ($\beta = 0.248$, 0.173 $t = 4.040$, 2.861 $p <$**0.000, 0.004**) respectively. On the other hand, eco-friendly product has no significant relationship with customer satisfaction result. Table 4.1 above, indicates that eco-friendly product has no significant relationship with satisfaction where ($\beta = -0.055t = 1.$ $0.460p <$**0.645**) Hence, **Ho$_1$:** the result indicates that SMEs Product quality improvement on customers' satisfaction in Ilorin metropolis has no significant relationship is rejected.

CONCLUSION

This study investigated the effect of SMEs product quality improvement on customer satisfaction in Ilorin metropolis. The study discovered that survival of most depends on the quality of product that matches existing products in the market or better surpasses them. Therefore SMEs product quality improvement is critical for the survival of most SME's in Ilorin metropolis.

RECOMMENDATION

All existing SME's in Ilorin metropolis should as a matter necessity engage into improving their product quality to enable them survive in the market because most customers derive maximum satisfaction on products that are always improved

Bibliography

Agrawal, A. (2003). Critical success factors and metrics for product innovation success, unpublished research project submitted to the department of mechanical and industrial engineering, Concordia University.

Ale-Ebrahim, N., Ahmed, S., & Taha, Z. (2009). Modified stage-gate: a conceptual model of virtual product development process, *African Journal of marketing Management, 1(9), 211-219.*

Belliveau, P. Griffin, A & Somermeyer, S. (2002). *The PDMA Tool Book for Improved Product Development.* Improved York: Product Development and Management Association

Brassington, F. & Pettitt, S. (2006). Principles of Marketing, 4th edition, England, Prentice Hall.

Ebarefimia, U.S. (2014). Product innovation process and its effect on business performance in Nigeria, *The Business & Management Review*, 14(4), 1-18.

Ewah, S.O.E., Ekeng, A.B. & Umanta, U.E/ (2018). Synthesis of product innovation success. *Global Journal of social science*s, 7 (2), 115-120.

Frill, C. & Frill, E.K. (2013). Business to business marketing relationship, systems and communications. England, Prentice Hall.

Gjini, K. (2014). Small and medium sized enterprises: performance factors, *European scientific journal,* 1, 134-140.

Kotler, P & Keller, K.L. (2006). <u>Marketing Management 12th Edition</u>. England, Prentice Hall.

Mohammad, J., Ahmed, M.S, Dawal, S.Z. & Zayanderhroodi, H. (2011). The importance of project management in small-and medium-sized enterprises for the development of improved products, *African journal of business and management,* 5(30), 100-122.

Mohammad, J., Ahmed, M.S, Dawal, S.Z. & Zayanderhroodi, H. (2011). The importance of project management in small-and medium-sized enterprises for the development of improved products, *African journal of business and management,,* 5(30), 1-14.

Namakka, M. T., Dogon-Daji, L. B. (2019). Sokoto Journal of Management, 20(3), 61-80

Otokiti, S.O. (2010). Contemporary issues and controversy in research methodology, Dubai, Dubai Printing Press.

Qureshi, J.A. (2012). The role of small and medium sized enterprises in socio-economic sustainability in Pakistan, *global journal of management and business research, 12(9).*

The Central Bank of Nigeria (2007): Nigeria's financial system strategy 2020, Central Bank of Nigeria.

The Economist Intelligence Unit (2012): developed economies, SMEs focus on continued expansion, The Economist intelligence Unit.