INFLUENCE OF INNOVATION ON SMALL AND MEDIUM ENTERPRISE (SME) GROWTH- A CASE OF GARMENT MANUFACTURING INDUSTRIES IN NAKURU COUNTY

Mwangi S. Martin- Kenyatta University
P.O. Box 43844
NAIROBI
Email: martinmwangi.edu@gmail.com
Cell: 0726731918

Dr Mary J. Namusonge- Lecturer, Department of Business Administration
Kenyatta University
P.O. Box 43844
NAIROBI
Email: mjabeya@gmail.com
Cell: 0721611090

ABSTRACT

Innovation is paramount to the survival and growth of any business. It has changed the way companies conduct business and the way both customers and clients acquire goods and services. The textile industry was one of the key sub-sectors targeted under the country’s strategy for economic recovery (Republic of Kenya, 2003). This study probed the influence of technological, product and process innovations on growth of garment manufacturing industries in Nakuru. Stratified random sampling and purposive sampling techniques were employed in deriving the study sample. Data was collected using structured questionnaires and analyzed using descriptive statistics with the aid of Statistical Packages for Social Scientist (SPSS 20). This study was able to establish a strong link between innovation and growth of businesses and recommends that the Kenyan government should establish close links with SMEs in the garment manufacturing industries to encourage innovative strategies that will enable the sector to expand.

KEY WORDS: Business Growth, Innovation, Product Innovation, Process Innovation, Technology

1.0 Introduction

1.1 Background of the Study

SMEs constitute for a massive 99.7% of the enterprises worldwide (Agarwal and Ashwani 2008). Since SMEs contribute substantially to the economic and industrial development in most countries, it becomes crucial to put in place a policy mechanism that will facilitate their growth. SMEs have to remain competitive and this they achieve by the efficient utilization of technology. Use of advanced process technology for instance, usually results in a better product quality and durability. Technology usually aids greatly in reducing cost by effecting savings in materials, energy or through replacement of conventional materials with cheaper alternative materials.

The promotion of SMEs, especially those in the informal sector, is viewed as a viable approach to sustainable development because it suits the resources in Africa. SMEs are the main source of employment in developed
and developing countries alike, comprising over 90% of African business operations and contributing to over 50% of African employment and GDP (Okafor, 2006).

It is estimated that today, Kenya’s informal sector constitutes 98 percent of all businesses in the country, absorbs annually up to 50 percent of new non-formal employment seekers, has an employment growth rate of 12-14 percent and contributes 30 percent of total employment. http://www.entrepreneurstoolkit.org/index.php?title=SMEs_in_Kenya. According to the Economic Survey (2006), the sector contributed over 50 percent of new jobs created in the year 2005. In addition to its importance in creating jobs, the small enterprise sector contributes 33 percent of the value-added in manufacturing and the retail trade in Kenya (Onyango & Tomecko, 1995).

1.2 Statement of the Problem

Research points that most SMEs in Kenya are not innovative and this affects negatively on their growth. The Kenyan Business system has not fully integrated innovation to enhance competitiveness (Ministry of Science and Technology, 2008). As a result, key sectors such as manufacturing have not been able to become competitive. The contribution of manufacturing has stagnated at 11 percent over the past 15 years. Kenya’s industrial structure continues to display insufficient linkages between the various categories of firms especially SMEs where most innovation takes place. In addition, most local firms have not been able to develop technological competencies to acquire and apply knowledge from foreign firms. However, some SMEs show some degree of innovativeness. Little is documented on SMEs innovation and its related impact on growth of SMEs in Kenya. The purpose of this study was to establish the influence of innovation on the growth of garment manufacturing industries in Nakuru.

Business enterprises need to constantly innovate in order to ensure growth and the broader success of any business. Tucker (2008) argues that innovation is the best way for stimulating growth in a firm. The most innovative firms realize higher turnover of products and services introduced within a period of time. In order for firms to grow, then they have to adopt an innovative approach that will enable them gain a competitive edge in the prevailing business environment. Freeman (1982) says that to choose to be non innovative is to choose death to an organization. Many scholars have conducted studies in the area of innovation including Gitonga (2003) on Factors Influencing Innovation in Kenya’s Banking Industry, Mwangi (2007) who studied the Effect of Innovation in Kenya’s Financial Intuitions to list a few. This study will be of great benefit to managers in the garment manufacturing industries as well as the entire body of policy makers in devising innovative strategies that will aid in the growth of the apparel industry in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The wider objective of this study was to investigate how innovation influences on the growth of SMEs.

1.3.2 Specific Objectives

i) Determine how technological innovation practices influence the growth of garment manufacturing industries in Nakuru

ii) Investigate the influence of product innovation on the growth of garment manufacturing industries in Nakuru

iii) Establish how process innovation can impact on the growth of garment manufacturing industries in Nakuru
1.4 Research Questions

i) How do technological innovation practices impact on the growth of garment manufacturing industries in Nakuru?

ii) What is the influence of product innovation on the growth of garment manufacturing industries in Nakuru?

iii) Does process innovation have any influence on the growth of garment manufacturing industries in Nakuru?

2.0 Review of Literature

Small and medium enterprises have been considered one of the driving forces in the economy due to their numeral contributions in terms of technological innovations, employment generation, export promotion to list a few (Subrahmanya et al, 2010). Innovation is key to the growth of SMEs as it provides firms with a competitive edge over other firms in the industry. Technological innovation plays in strategically to provide firms with a competitive edge as well as help such firms to gain entry into new markets (Becheikh et al 2006). Burrone and Jaiya 2005 put it that the ability of firms to innovate varies significantly depending on their sector, size, focus, resources and business environment in which they operate.

Agarwal and Ashwani (2008) argue that globalization has affected not just the competitiveness of SMEs, but has also threatened the very survival of some of the weaker ones and forced them to modify their manufacturing and marketing strategies. They recommend that SME’s need to establish intense linkages with R&D institutions (Research and Development) in order to carry out technology up gradation in the long term in order to overcome the rapid technological obsolescence in the globalized economy.

Lehtimaki (1991) observed in the context of Finnish SMEs that on average, the contribution of innovated new products was more to total sales than to profits. Roper (1997) whose study focused exclusively on product innovations in German, UK, and Irish SMEs, ascertained that the output of innovative SMEs grew significantly faster than that of non-innovators implying that innovated products contributed to the faster growth of the former. Engel et al. (2004), similar to Roper, found that sales turnover of innovative firms grew faster than that of non-innovative firms. They detected a significant relationship between the share of innovative sales and sales turnover change of firms. Lumiste et al. (2004) found that innovation effects were felt in terms of both product-oriented results such as: improvement in quality of goods and services, and secondly, increased range on goods and services, and process-oriented results like increased production capacity and improved production flexibility.

2.1 Technological Innovation

Many studies have been conducted and it seems evident that there exists a strong relationship between technological innovation and the growth of SMEs done in firms based in different industries. Coad and Rao (2008) probed the relationship between innovation and the growth of sales for firms in high tech sectors. Using a quartile regression approach, they observed that innovation is of a crucial importance for selected fast growth firms. If any undertaken innovation is successful, the share of innovated new products is likely to increase in the total sales of the firm and when this happens, firms will be able to achieve growth in their sales turnover, investment and employment which would all result to achieving growth of firm size.

Technological innovation is a key factor in a firm’s competitiveness. Technological innovation is unavoidable for firms which want to develop and maintain a competitive advantage and gain entry in to new markets (Becheikh et al. 2006). Among firms of different sizes, SMEs are generally more flexible, adapt themselves better, and are better placed to develop and implement new ideas. The flexibility of SMEs, their
simple organizational structure, their low risk and receptivity are the essential features facilitating them to be innovative (Harrison and Watson 1998). Therefore, SMEs across industries have the unrealized innovation potential (Chaminade & Vang 2006). Through empirical research one can generate new and creative ideas about products and processes. Some researchers observe that increasing profit of organization is because of change in technology (Ruttan, 1997).

Technology is important to support and promote SMEs development as it is responsive to local economies and results in distinctive products and services. Initiatives to support indigenous technology should therefore aim to link SMEs with technology specialists in order to generate an enabling environment that develops technology capacity. This is likely to result in a great performance of SMEs as it provides differentiated products, services and technical services in accordance with the resources available and the market needs in the context of these SMEs. It is generally recognized that SMEs face unique challenges, which affect their growth and profitability and hence, diminish their ability to contribute effectively to sustainable development (Hill, 1987).

2.2 Product Innovation

Schumpeter (1934) defines product innovation as the introduction of a new good; one in which the consumers are not yet familiar with. It is a new quality of a good. Product innovation also greatly influences businesses today. Product innovation is the introduction of new functions, enhanced performance or the addition of new features into the existing products (Susman et al, 2006). SME’s face unrelenting pressure from powerful customers to lower prices and accept shrinking margins on sales. SMEs are thereby seeking revenue growth from new products and services. Susman therefore recommends that companies must offer customers new products and services to allow for a more efficient and effective use of products that they currently sell. Nooteboom (1994) ascertains the fact that although only a small proportion of SMEs engage in innovative activities, those that do so appear to have a higher yield for their effort especially in number of new patents that are issued. Nooteboom further recommends that SMEs should pursue product innovation strategies in emerging markets. Woodcock et al (2000) argues that SMEs often carry out New Product Development process less completely or thoroughly compared to the larger companies. Trott (1998) confirms that corporations must be able to adapt and evolve if they wish to survive. This is because competitors will come to the market and introduce new products that will change the basis of competition. The ability to change and adapt therefore is very key to the survival of any business.

Practically every product in the market today has been improved. These semi–new products can act as replacements to existing products in a company’s product line (Choi, 2005). They however provide enhanced performance or a greater perceived value over the old products (Crawford et al, 2003).

The new product design plays a pivotal role in defining the physical form of the product to satisfy customers’ needs. The design component entails engineering design such as mechanical, electrical, software and industrial design such as aesthetics, ergo metrics and user interfaces (Ulrich et al, 2004).

Innovation development forms its basis on conducting customer surveys and trying to identify particular customer needs for products which are largely nonexistent (Sundbo, 2003). The notion behind product development involves the idea of slowly developing new products when the firm’s traditional market is about to become saturated. Such products should ideally be developed based on customers’ needs and take the form of a process of interaction between the marketing department, with its knowledge of the market and with the ideas it gathers from the customers and then formulate a broad idea of a new product. Schumpeter (1942) underscores the significance of a new product as a stimulus to an organization’s growth. He argues that the
competition posed by new products was far more important than marginal changes in the price of existing products.

2.3 Process Innovation

Process innovation is the introduction of a new method of production; one that is yet to be tested by experience in the branch of manufacture concerned. It is a process which can also exist in a new way of handling a commodity commercially (Schumpeter, 1934). Process innovation is an aspect crucial to the success of any business. It is an integrated concept that involves changes in the production process which is aimed at reducing the costs, wastes and lead time or at improving production efficiency. Process innovation has a direct and immediate impact on the productivity performance of SMEs (Castillejo, 2008) and due to their organizational simplicity, SMEs may be able to implement process innovation faster and at lower switching costs as compared to the larger firms (Buckley and Mirza, 1997). Allocating efficiency structurally stimulates production factors to move from low productivity (low value manufacturing) to high productivity (high value manufacturing) platforms. Innovations consists of the process by which firms master and implement the design and production of goods and services that are new to the user irrespective of whether they are new to their competitors, countries or the world. Innovation works to improve many large and small areas of product design and quality productions, organization and management routines as well as marketing. It includes modifications in the production process and techniques that collectively reduce costs, increase efficiency, provide for human welfare and ensure environmental sustainability (Munani and Kamau, 2009).

Ogembo and Mason (2012) argue that in the case of Kenya’s apparel industry, it is imperative that competitive advantage is linked to the advanced or specialized factors. This can be achieved by improving the skills of the designer trainer, facilitators and equipping the design studios with modern technologies such as Computer Aided Designs (CAN), Modern Sewing Room Systems as well as size and fit equipment and tools necessary for achieving high quality apparel that can meet international standards.

Innovation has its sources in a wide variety of places and in activities such as R&D, design production on the shop floor, quality control and marketing (Oyelaran-oyeyinka and McCormick, 2007) investment in and mastery of new equipment is still the most important way for technological learning leading to the improvement of the production process. Innovation in the clothing industry is fundamental in enhancing competitiveness in Kenyan firms. Innovation activities can be classified as mechanical, invention marketing strategies, procurement of inputs and enhancing human resource by employing professionals and training workers. Therefore, major innovations that are derived in the clothing industry include: product, process, marketing and procurement, technological and organizational innovations (Munandi and Kamau, 2009).

3.0 Methodology

This study was a cross section descriptive survey. The population consisted of 9 garment manufacturing businesses in Nakuru County in Kenya. This study adopted descriptive design to study the research objectives. The study was conducted with the aim of probing how technological, product and process innovations impact on growth of garment manufacturing industries within the area of study. Stratified random sampling and purposive sampling techniques were employed in deriving a sample of 46 respondents. The population was divided into three strata which are involved in innovation related activities. These strata were R&D, marketing and Manufacturing. The respondents included a team of top management heading R&D, Sales and Marketing and Manufacturing departments in the enterprises.
Data was collected using a structured questionnaire that had close-ended, open-ended, and Likert scales items. The questionnaire was pilot tested on 6 businesses in a different locality that were not part of the final respondents. Validity of the instrument was tested by the use of expert opinion, while reliability was tested by the half-split method. Data were analyzed by the use of descriptive statistics with the aid of the Statistical Package for Social Sciences (version 20). A sampling frame was obtained from Nakuru County business development offices.

3.1 Measurement of variables

3.1.1 Technological Innovation

This variable was measured by the adoption and modification of new technological information, skills, and access to technical and technology support mechanisms. Rate of use of computers and ICT and technology networks

3.1.2 Product Innovation

This was measured by both the introduction of new goods and significant improvements in the functional or user characteristics of existing goods

3.1.3 Process Innovation

This was measured by the extent of significant changes in techniques, equipment and/or software.

3.1.4 Growth of the SMEs

This was measured by increase in customer base, number of employees, business profitability (proxy were used) and rate of change.

4.0 Findings

4.1 Technological Innovation

Technological innovation was measured by the extent of adoption and modification of new technologies from other sources. Technological innovations referred to the use of new information and skills from the Kenyan Government departments (Government R&D, technology and science councils, ministry of industry), customers and external organizations. It also meant the use of computers and access to outside support mechanisms. The results showed that 43% of the responding firms had adopted new technologies and adapted them to their operations, products and services. A further 31 percent of the respondents agreed that technological innovation were important to the growth of the businesses. Only 9.1 percent strongly believed that technological innovation cannot in any way influence the growth of businesses. This percentage revealed that some firms could not perceive a direct relationship between innovation and business growth, nonetheless it existed.

Thirty six percent of the respondents agreed that research and development was an important aspect in developing efficient production systems which were cost efficient. Only 6 percent of the respondents strongly disagreed with the above notion while 27 percent of the respondents remained neutral.

Sixty three percent of the respondents agreed that an investment in technology would help a firm to realize higher profits as opposed to 36 percent of the respondents who did not believe that investing in technology would yield to higher profits for the business.
4.2 Product Innovation

According to the findings of the study, 40 percent of the respondents agreed that innovating new products were an essential component that would help the firm to realize higher sales revenue and therefore growth. Thirteen percent of the respondents agreed that innovation of new products can help the business achieve more profits due to increased level of sales of the innovated new products and 15 percent strongly disagreed that innovation of new products would not hold any bearing on profit margins of the business.

Only 4 percent of the respondents did not think that innovating new products would influence the level of sales revenue generated. They believed that new products were costly and risky and they could influence growth negatively. Due to stiff competition in the market, companies must constantly renovate their products in order to meet the ever changing customer needs but some SMEs thought otherwise.

In order to innovate new products, market research was an important component that was conducted before a firm designed new products and released them to the market. Market research referred to solicitation of ideas from customers, surfing the internet and spying on competitors. Majority of the respondents (65%) agreed that market research was done prior to the design of a new product to ensure that the innovated new products meet the desired user needs. Technology then becomes very pivotal in the design of these products.

4.3 Process Innovation

The study also indicated that in order for the firm to cut on excessive expenditure, new techniques of manufacturing needed to be developed. A vast majority (56%) of the respondents agreed that technology is vital in developing new methods of production that help in cost reduction by the business. The research also indicated that process innovation was crucial to coming up with quality designs of products that help meet user wants and needs. Forty five percent of the respondents agreed that process innovation was crucial in coming up with quality designs of products that will help meet user wants and needs. Fifteen percent of the respondents disagreed while 11 percent of the respondents strongly disagreed.

Many of the businesses in the study sample (75%) showed a significant effort in the investment of modern machineries of production. This points to the fact that process technologies were very important in efforts to maintain efficiency and effectiveness. However, the garment making businesses in Kenya found process innovations very expensive and difficult to cope with. The study also revealed that R&D was crucial in the design of new production processes but the SMEs in the sample lacked the capabilities for R&D. R&D did not involve in-house laboratory work. The R&D activities were limited to data collection from external sources and adapting it to the sample businesses activities.

5.0 Conclusions

This study established a perceived link between innovation and business growth. Most of the innovating businesses indicated that they had realized increases in sales, customer base, and change of location and profits in monetary sense.

Innovation has continued to influence businesses in the garment making industry in many ways. Innovation is such a vital component in any business undertaking that without it, it is virtually impossible for a business to survive due to the increased competition that is observed within industries. In order for a business to thrive and grow, the management of the business must see innovation as a key tool or proponent of business success.

Most of the innovations were adoptions of products, processes and technologies developed outside the country, but some firms were to come up with their own new designs, software for simple accounting, and production.
Based on the results, it can be concluded that process innovations are more critical to garment making businesses yet they are the most challenging in terms of costs and accessibility.

5.1 Recommendations

The study makes the following recommendations:

a) Garment manufacturing companies in Nakuru, Kenya need access to government centers for research and development as this can be a crucial strategy for the growth and development of businesses. Access to technologies depends largely on government policy and a strong will to implement those policies. Moreover, inputs to innovation processes in SMEs are increasingly observed to be coordinated with external parties, such as universities and customers which enable them to reduce R&D costs.

b) These companies not only need to invest in their workforce by allowing them to attend conferences, seminars, workshops and short courses but also to motivate them to learn and unlearn old techniques.

c) Garment manufacturing firms should work to ensure quality in the production processes. This will help them cope with the ever changing user needs and wants and to meet quality production criteria that is desired.

d) For businesses to realize growth, investment in technology should be made in order to reduce costs and increase the level of sales. Garment manufacturing businesses also need to keep designing and redesigning their products so as to meet changing user needs and product innovation is very crucial in the achievement of this goal. It is also crucial for businesses to take process innovation so as to raise the level of quality of the products they produce as this research has revealed that process innovation can greatly enhance the production of quality products which would in the end raise the level of sales and increase the profit margins of the business.

The management needs to be open to adopting new innovation strategies that will help the business to grow in the long term and should be ready to tackle any challenges that may come to as a result of such a strategy.

e) The study recommends that the government should work in close association with local garment manufacturers so as to give them the support that they require. Laws need to be enacted that will protect local manufacturers from unfair competition which is mainly posed by the importation of second hand clothes. The study has found that these products pose a serious survival challenge to the local garment manufacturers- a fact that is made even more evident by the dwindling numbers of garment manufacturing companies in the country and more so in the county of Nakuru.

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