Innovations and Enterprise Growth Among Small and Medium Electrical Machinery Enterprises In Nairobi County, Kenya

James Ongwae Gichana
Jomo Kenyatta University of Agriculture and Technology
Department of Entrepreneurship and Technology, Leadership and Management
P.O. Box 1241-00200, City Square, Nairobi, Kenya
Phone: +254-735-244-986

Elegwa Mukulu
Associate Professor
Jomo Kenyatta University of Agriculture and Technology
Department of Entrepreneurship and Technology, Leadership and Management
P.O. Box 62000-00200, City Square, Nairobi, Kenya
Phone: +254-720-872-974, +254-734-514-347

Romanus Odhiambo
Professor
Jomo Kenyatta University of Agriculture and Technology
Department of Statistics and Actuarial Science
P.O. Box 62000-00200, City Square, Nairobi, Kenya
Phone: +254-733-341-025, +254-714-491-445

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ABSTRACT

The study sought to examine relationship between innovations and enterprise growth among small and medium electrical machinery enterprises in Nairobi County in Kenya. The main objective of the study was to explore how and in what ways innovations contributed and led to enterprise growth. The study adopted a descriptive survey design. Data was collected using

questionnaire, interview guide, and observation checklist to get the required and in-depth information. The study found that innovations have positive impact on enterprise growth.

Keywords: Enterprise Growth, Innovations, Nairobi County, Policy, Relationship

1.0 Introduction

Small and medium enterprises play an important role in economic development of many countries in the world. This is because they have the potential of employing many people in situations where formal employment may be scarce. In Kenya several programs, policies, strategies and flagship projects on entrepreneurship development have been formulated to promote the growth of small and medium enterprises. Yet, the small and medium electrical machinery enterprises appeared not to have taken the advantage of innovations to develop growth. The small and medium electrical machinery enterprises are not achieving the set target of 10% per annum contribution to the gross domestic product to support Kenya's social - economic development agenda by creating jobs, generating wealth, and attracting foreign direct investments (Government of the Republic of Kenya, 2008). The pressing issue is that innovations of small and medium electrical machinery enterprises have not effectively kept pace with the changing consumer demands and competition in the international markets. This study sought to determine how innovation as a purposeful and focused effort might develop growth of small and medium electrical machinery enterprises in Nairobi County in Kenya.

According to Talebi and Tajeddin (2011), a policy to enhance innovations must be present in a modern Small and Medium Enterprise (SME) policy as one of its main components. Small and Medium Enterprises (SMEs) are considered to be an engine for growth in both developed and developing countries (Sharif, Ahmad & Ismail, 2009). The benefits of vibrant small and medium electrical machinery enterprises include: the creation of employment opportunities; the strengthening of industrial linkages; the promotion of flexibility and innovation; and the generation of export revenues. Small and medium electrical machinery enterprises have the ability to innovate, diversify, and create new jobs. Avlonitis and Salavou (2007) recommend that since innovation is a condition inherent in the domain of entrepreneurship, an enterprise's ability to launch successful product innovations should be considered in parallel. Adaptation to shifting landscapes through innovations of entrepreneurship and successful product innovation is of major concern for small and medium electrical machinery enterprises.

Marcato, Guido and Peluso (2008) claim that among many drivers of innovation, researchers have paid growing attention to internal factors leading to innovative behaviors by individuals. These factors are associated with the attributes of the innovative entrepreneurs and can be viewed as the psychological underpinnings of the human capital existing in an enterprise, as it referred to the stock of experience, skills, knowledge, and accumulated by its employees over time. These factors have recently been associated with different research areas such as the establishment and success of new ventures, industry-university relationships, the role of incubators and the like.

The focus on small and medium enterprises was particularly justified when investigating innovations in the context of small and medium electrical machinery enterprises where role of entrepreneurs in fostering innovation was especially important, since innovation-related research has consistently shown entrepreneurs were the main locus and driver of innovations. According to Hisrich, Langan-Fox and Grant (2007), entrepreneurship is a major source of employment, economic growth and innovation, promoting product and service quality, competition and economic flexibility. It is also a mechanism by which many people entered the society's economic and social mainstream, aided culture formation, population integration and social mobility.

Juri and Idris (2008); postulates in today's competitive business environment, innovations were critical not only to facilitate differentiation, but also to reduce cost and add-value for the customers. Kenya vision 2030 is the new country's development blueprint covering the period 2008 to 2030 (Government of the Republic of Kenya, 2007). The aim will be making Kenya a newly industrializing, middle income country providing high quality life for all its citizens by the year 2030.This will be based on the creation of international competitiveness through more efficient productivity at the enterprise and household level, with government support. All strategies and flagship projects will exploit knowledge in science; technology; and innovation to function efficiently, improve social welfare, and also promote democratic governance. Despite these strategies and flagship projects, small and medium electrical machinery enterprises will require information on innovations for them to exploit the available opportunities for growth. The Kenyan economy exhibited limited levels on innovations required to foster increased output and productivity improvements necessary for employment and wealth creation (Government of the Republic of Kenya, 2008). The

performance of the small and medium electrical machinery enterprises was negative. It is against this background that this study set out to investigate innovations that contributed and led to enterprise growth among small and medium electrical machinery enterprises in Nairobi County in Kenya.

1.2 Statement of the problem

One of the problems facing Kenyan economy is unemployment. This is due to low economic growth, corruption, nepotism and negative attitudes towards entrepreneurship. Approximately 503,500 graduates from a pool of 1,374,360 graduates from various tertiary academic institutions in Kenya entered the job market annually. More than 870,860 graduates remained unemployed annually because of weak economic performance and the public sector reforms, which adversely affect employment in Kenya.

Manufacturing as a key sector in the Kenyan economy contributes substantially to growth in output, exports and employment. However, production in the small and medium electrical machinery enterprises sub-sector's growth declined for the fifth year in a row for the period 2006-2010 (Kenya National Bureau of Statistics, 2011). From 2005-2009 the employment obtained in the sub-sector was on a downward trend. For instance, in 2005 the numbers engaged in the mall and medium electrical machinery enterprises sub-sector was 2,481; by 2009 this number had dropped to 1,877. Value added in the sub-sector in 2005 stood at ksh. 3,054 million, declining to ksh. 2,282 million in 2009 (Kenya National Bureau of Statistics, 2010).

Based on this problematic performance in small and medium electrical machinery enterprises sub-sector of the manufacturing sector in Nairobi County in Kenya, and considering that innovation of small and medium electrical machinery enterprises may not be about having more technological innovations but about the right attitude and understanding how to make best out of innovations in a specific situation, the small and medium electrical machinery enterprises have not achieved the expected growth target of 10% per annum. One way of enhancing their performance is through innovation. Yet, lack of information on innovation as creation of better or more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society has made small and medium electrical machinery enterprises not to realize the expected growth. Not many studies have addressed this issue adequately. There is an urgent need to determine the critical innovations

that hindered enterprise growth. This is important because for a country like Kenya that was endeavoring to industrialize by year 2030 the competitiveness of small and medium electrical machinery enterprises was critical (Government of the Republic of Kenya, 2011). The aim of this research study was to establish how small and medium electrical machinery enterprises could take advantage of innovations to realize growth. The study focused on five innovations that impact on enterprise growth.

2.0 Research Objectives

The general objective of this study was to explore the relationship between innovations and enterprise growth among the small and medium electrical machinery enterprises in Nairobi County in Kenya. The study is guided by the following five specific objectives:

1. To identify how innovation products contribute to growth of Small and Medium Electrical Machinery Enterprises in Nairobi County, Kenya.
2. To determine ways innovation processes contribute to growth of Small and Medium Electrical Machinery Enterprises in Nairobi County, Kenya.
3. To examine how innovation services lead to growth of Small and Medium Electrical Machinery Enterprises in Nairobi County, Kenya.
4. To establish ways innovation technologies contribute to growth of Small and Medium Electrical Machinery Enterprises in Nairobi County, Kenya.
5. To explore how innovation ideas lead to growth of Small and Medium Electrical Machinery Enterprises in Nairobi County, Kenya.

3.0 Literature Review

3.1 Innovation products

The innovation products variable was guided by economic entrepreneurship theory that explored the economic factors that enhanced entrepreneurial innovation behavior. The innovation products was also steered by resource –based entrepreneurship theory that argues that access to resources by founders is an important predictor of opportunity based entrepreneurship and new venture growth (Alvarez & Businitz, 2001).

Product innovation is about making beneficial changes to physical products (O'sullivan & Dooley, 2009). The degree of change can include the following (Wheelwright & Clark, 1992): incremental improvements, additions to product families, next – generation products

and new core products. The product development process for next-generation and new core products follows a familiar cycle in most organizations (Cooper, 2000): ideation, preliminary investigation, detailed investigation, development, testing and validation, market launch and full production. Each of these steps involves interaction with customers, who may participate in idea generation and feature recognition.

On models of innovation, Bwisa (2011) identifies three schools of thought. They include social deterministic school, which argues that innovations are a result of a combination of external social factors and influences such as demographic changes, economic influences and cultural changes; individualistic school, which argues that innovations are a result of unique individual talents and innovators are born; and unexpected discovery school, which highlights the importance of the unexpected discovery. The role of serendipity or luck was offered as an explanation for innovations. Yet, entrepreneurship refuses mere luck and advocates for systematic, purposeful effort if success had to be achieved (Bwisa, 2011). The innovation products variable was operationalized by the following indicators: degree of satisfaction with products, level of contribution of products and level of development of new products.

3.2 Innovation processes

The innovation processes variable was directed by sociological entrepreneurship theory, opportunity-based entrepreneurship theory and psychological entrepreneurship theory. Relating to sociological theory of entrepreneurship, the level of analysis was the society. The social contexts that relates to entrepreneurial opportunity include: social networks, life course stage, ethnic identification and population ecology. Concerning opportunity-based entrepreneurship theory, the entrepreneur always searches for change, responds to it and exploits it as an opportunity. According to Psychological entrepreneurship theory; risk taking, innovativeness, need for achievement and tolerance for ambiguity had positive and significant influence on entrepreneurial inclination.

Process innovation was viewed as the introduction of a new or significantly improved method for the production or delivery of output that added value to the organization (O'sullivan & Dooley, 2009). The term process refers to an interrelated set of activities designed to transform inputs into a specified output for the customer. It implied a strong emphasis on how work is done within an organization rather than what an organization does (Davenport, 1992). Processes relate to all operational activities by which value is offered to the end customer,

such as the acquisition of raw materials, manufacturing, and logistics and after - sales services. Process innovation gave industries a competitive advantage that allows them to dominate some global markets with products. Similarly, process innovation allowed organizations to gain competitive advantage by providing higher – quality products, delivered faster and more efficiently to the market than by the competition. The Process innovation results in organizational improvements such as lower stock levels, faster, more agile manufacturing processes and more responsive logistics. The more common approaches put forward by O'sullivan and Dooley (2009) include: just-in-time, total quality management, lean manufacturing, supply chain management and enterprise resource planning.

Aside from schools of thought on innovation, literature has some models of the process of innovation. These models purport to explain how innovation occurs. Drucker (1986) gives seven sources of entrepreneurial innovative opportunities four of which lie within the firm and three involving changes outside the firm. They include: the unexpected, the incongruities, and need process, the industry and market structures, demographics, changes in perception, and new knowledge. Linear models of innovation reflect linear sequential processes and explain the initial stimulus of innovation, that is, where the trigger for the idea or need was born. The two basic variations of the linear model are: the technology-driven model of the 1950s-1960s that is often referred to as technology-push originating from research and development to manufacturing to marketing and finally to user; and the market-pull model or the customer need-driven model of the 1970s advanced by Von Hippel (1978) as pointed out by Bwisa (2011) emphasizes role of marketing as an initiator of new ideas resulting from close interactions with customers. The needs were conveyed to research and development for design and engineering and then to manufacturing for production of products demanded by the market.

Bwisa (2011) suggests that implementable innovations originate from two broad spheres: current state of the art that involves inventory of technical knowledge from which innovators base estimates of technical feasibility; and current state of social and economic utilization in which innovators recognize existing and potential demand. A fusion of technical feasibility and recognized potential demand for innovation would create a concept to be evaluated by referring to these spheres. Innovation processes is depicted as the link between technology transfer and commercialization process. Innovation processes variable is operationalized by

following indicators: degree of satisfaction with processes, level of contribution of processes and level of development of new processes.

3.3 Innovation services

Innovation services variable was steered by sociological entrepreneurship theory and economic entrepreneurship theory. Sociological enterprise focused on the social context. In the sociological entrepreneurship theory, the level of analysis was the society (Landstrom, 1998). Reynolds (1991) identifies four social contexts that relates to entrepreneurial opportunity. The social networks focused on building relationships and bonds that promote trust and not opportunism. Life course stage context involves analyzing the life situation and characteristic of individuals who have decided to become entrepreneurs. Ethnic identification context, points out that an individual's sociological background was one of the decisive push factors to become an entrepreneur. Population ecology context postulates that environmental factors played an important role in the survival of enterprises. The economic entrepreneurship theory, had deep roots in the classical and neo-classical theories of economics and the Austrian market process. These theories explored the economic factors that enhance entrepreneurial innovation behavior.

Service innovation was about making changes to intangible products. A key attribute of a service was a very high level of interaction with the end customer. The internet was a valuable resource on which new service relationships between organizations and their customers were being developed every day. The concept of service quality was of particular relevance to entrepreneurs. The unique characteristics of services, such as intangibility, customer contact, inhomogeneity and perishable production, also offered significant scope for innovation (O'sullivan & Dooley, 2009). Innovation services variable was operationalized by degree of satisfaction with services, level of influence of services and level of introduction of new services.

3.4 Innovation technologies

Innovation technologies variable was governed by resource-based entrepreneurship theory and opportunity-based entrepreneurship theory. Clausen (2006) argues that people with financial capital were more able to acquire resources to effectively exploit entrepreneurial opportunities and set up a firm to do so. Drucker (1985) postulates that entrepreneurs did not

cause change (as claimed by the Schumpeterian or Austrian school) but exploited the opportunities that change (in technology, consumer preferences etc.) created.

Emerging technologies had the potential for significant innovation across the organization and could be the basis for innovative products, processes and services that could revolutionize the fortunes of an organization. Sources of innovation technologies could include universities, high technology startups and competing organizations. Technology was a high-level strategic thrust popular in many organizations (Hayes, Wheelwright & Clark, 1988) which deals with decisions about the technology used in the organization such as technological platforms employed in products and services, machinery and computer networks and telephone exchanges. Many organizations used technology as an enabler to enhance knowledge better, improve process efficiency and enhance product offerings.

According to Magu (2011) growth in the manufacturing sector was widely considered a great vehicle for economic development, a fact taken up by Kenyan policy makers by setting a policy of ensuring industrialization by the year 2020. Magu (2011) contends that as evidence by the case of newly developed countries, meaningful industrial development was preceded by technological advancement. In Kenya, performance of the manufacturing sector had been on a decline in the last decade. This had been attributed to lack of adequate technical and entrepreneurial skills coupled with inadequate R&D, which constrained technological advancement. In the electrical/electronics sub-sector, most of the enterprises had engaged in production of traditional electrical products, such as electric cables, lamps, electrodes and fans. Only a few had been involved in the manufacture of the more modern and high growth potential products such as computation, automation and communication equipment. Yet, studies in more successful economies such as USA and South Korea have shown that manufacture of modern and dynamic electrical/electronic products to be the growth vessel in the sub-sector.

Trott (2012) illustrates that Joseph A. Schumpeter was regarded to be the founder of modern growth theory. In the 1930s Schumpeter realized that the development and diffusion of new technologies by profit seeking entrepreneurs formed the source of economic progress. Robert Solow advanced this theory in the 1950s. Paul Rome developed these theories further and is responsible for the modern theory of economic growth, sometimes called neo-Schumpeterian economic growth theory. It argues that sustained economic growth arose from competition

among firms. Firms increase their profits by devoting resources to creating new products and developing new ways making existing products. It was this economic theory that underpinned most innovation management theories. When entrepreneurs devoted their resources creating new products they rarely did that as a single activity. Innovation technologies variable is operationalized by following indicators: degree of satisfaction with innovation technologies, level of contribution of innovation technologies and level of development of new innovation technologies.

3.5 Innovation ideas

Innovation ideas variable was managed by the following entrepreneurship theories: sociological, opportunity-based, economic and psychological. The political system, government legislation, customers, employees and competition were some of the environmental factors that might have an impact on survival of new enterprise or the success of the entrepreneur. An opportunity-based approach provided a wide-ranging conceptual framework for entrepreneurship research. Entrepreneurs had an eye more for possibilities created by change than the problems. Entrepreneurs effectuated knowledge when they believed it would obtain some individually-defined benefits. The level of analysis in psychological theory was the individual. Personal characteristics explained entrepreneurship. Personality traits, need for achievement, locus of control, risk taking, innovativeness and tolerance for ambiguity characteristics had been found to be associated with entrepreneurial propensity.

O'sullivan and Dooley (2009) postulates that idea generation was the first stage of innovation process which relates to the creative activity of generating an opportunistic idea. This stage involved the continuous scanning of the internal and external environment for threats and opportunities that might be developed into an innovation by the organization. The stage involves mining the sources of innovation for new ideas and evaluating solutions to identified problems. An organizational culture that encouraged creativity and empowerment could significantly support this phase of the process.

The input typically stem from a technical insight about a service. In some cases ideas arose from observed problems that had occurred in the past or might occur in the future. Ideas could also be stimulated by the goals of the organization or an unanticipated opportunity. Tidd, Bessant and Pavitt (2005) identifies aspects of leadership such as shared vision of the

future, extensive communication, desire to innovate and the achievement of high involvement in the innovation process as key components of an innovative organization.

Innovation was the improving (adding value) to something already existing; the successful implementation of novel and appropriate ideas; the commercialization of an invention (Trott, 2012; Bwisa, 2011). Innovation ideas variable is operationalized by the following indicators: degree of satisfaction with innovation ideas, level of influence of innovation ideas and level of conversion of new innovation ideas.

4.0 Data Analysis/Findings

4.1 The innovation products

The research study reveals that there is a significant relationship between innovation products and growth of small and medium electrical machinery enterprises in Nairobi County, Kenya. This is ascertained by the respondents' satisfaction level with the innovation products in the small and medium electrical machinery enterprises in Nairobi County. The majority of the respondents indicated that they were satisfied with the innovation products while a small number of the respondents were neutrally satisfied with innovation products. A large percentage of the respondents suggested that innovation products contributed to growth to a medium extent due to introduction of new, better and improved products into the enterprise which ultimately promoted competition hence growth in the small and medium electrical machinery enterprises in Nairobi County, Kenya. This concur with the findings of Gakure and Kirima (2011) that enterprises achieve competitive advantage through acts of innovation which can be manifested in a new product design, a new production process, a new marketing approach or a new way of doing business. Similarly; Gathenya, Bwisa and Kihoro (2011) confirm that innovativeness and creativity geared towards enhancing performance should be core for small and medium enterprises in fostering competitive advantage.

The research study also indicated that there were definite reasons as to why innovation products contributed significantly to growth of small and medium electrical machinery enterprises in Nairobi County, Kenya. A significant percentage of the respondents revealed that innovation products had factored in adequate contribution to growth due to readily new, opportunistic and improved products to market. However, the research study suggested that there were potential reasons as to why innovation products contributed insignificantly to growth of small and medium electrical machinery enterprises in Nairobi County, Kenya. A

considerable number of the respondents indicated that the products could not meet the customer demands and that other small and medium electrical machinery enterprises in Nairobi County, Kenya offered similar products hence stiff competition.

4.2 The innovation processes

The research study indicates that there is a significant relationship between innovation processes and enterprise growth among small and medium electrical machinery enterprises in Nairobi County, Kenya. The study established that a large percentage of respondents in the small and medium electrical machinery enterprises in Nairobi County were satisfied with the innovation processes to growth. However, a small percentage of the respondents confirmed that they had a neutral satisfaction level with the innovation processes to growth. Consequently, the research study determined that a reasonable percentage of the respondents revealed that innovation processes to a medium extent contributed to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya by introducing new and improved production methods to enterprises and transforming inputs into specified output for the customers.

In relation to the findings, the research study deduced that innovation processes significantly improved production methods that added value to products, that innovation adequately helped in availing needed products and contributed significantly by increasing production quality and improving flexibility of production. This relate to the argument of O'sullivan and Dooley (2009) that process innovation is the introduction of a new or significantly improved method for production or delivery of output that added value to the organization. Similarly, the term process refers to an interrelated set of activities designed to transform inputs into a specified output for the customer. It implied a strong emphasis on how work is done within an organization rather than what an organization does (Davenport, 1992). Essentially, innovation processes gave organizations a competitive advantage that allows them to dominate some global markets with products.

On the insignificance contribution of innovation processes to growth, most respondents indicated that other small and medium electrical machinery enterprises in Nairobi County processed similar products and that there existed inadequate production capacity in some enterprises consequently the insignificance of production processes. The study realized that lack of capacity to produce, production of products by other small and medium electrical machinery enterprises in Nairobi County and lack of technical and entrepreneurial skills were

the main causes of insignificance contribution of innovation processes to growth. The findings showed that reduced production capacity, reduced flexibility of production methods, reduced market share and increased production costs per unit of labor, electricity and materials were the key effects that were realized as a result of insignificance contribution of innovation processes to growth. The research study established that the ultimate effect of the insignificance contribution of innovation processes to growth was that the objective of increasing range of products could not be achieved, that competition into the local, regional and international market could not be realized and that the objectives of increasing production methods and techniques could not be ascertained.

4.3 The innovation services

The research study reveals that there is a significant relationship between innovation services and growth of small and medium electrical machinery enterprises in Nairobi County, Kenya. The study found that a large percentage of the respondents were indeed satisfied with the innovation services to growth. But, a small percentage of the respondents in the study indicated that they were neutrally satisfied with the existing innovation services to growth. Regarding the extent to which the innovation services led to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya; the research study established that a large percentage of the respondents to a medium extent indicated that indeed the innovation services lead to growth. However, the study found that a small percentage of the respondents to a high extent the innovation services led to growth of small and medium electrical machinery enterprises in Nairobi County. The research study found that this growth is attributed to presence of new and opportunistic services and increased service quality to the small and medium electrical machinery enterprises in Nairobi County, Kenya. O'sullivan and Dooley (2009) delineate the unique characteristics of service such as intangibility, customer contact, inhomogeneity and perishable production; also offer significant scope for innovation. The concept of service quality is of particular relevance to entrepreneurs. Innovation service is about making changes to intangible products. A key attribute of a service is a very high level of interaction with the end customer. The research study established the reasons as to why the innovation services led significantly to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya. The study found that provision of new and improved opportunistic services to meet market demands led significantly to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya.

The research study found that the insignificance contribution of innovation services to growth of small and medium electrical machinery enterprises in Nairobi County was as a result of the services that were new to enterprises, customer expectation not met, innovation services that were available but not utilized and the attendant lack of adequate service provision in the enterprises. In addition, the study realized that lack of technical and entrepreneurial skills and insufficient service provision capacity were the causes that led to the insignificance of innovation services to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya. The study found that reduced service range, poor service quality and unimproved flexibility of service provision were the effects of insignificance of innovation services to growth of small and medium electrical machinery enterprises in Nairobi County. Conversely; the study deduced that the production cost per unit of labor, materials and energy increment, unattained objective of increasing capacity services and unachievable competition in the local, regional and international markets as the ultimate effect on the insignificance of innovation services to growth.

4.4 The innovation technologies

The research study established that there exists a significant negative relationship between innovation technologies and growth of small and medium electrical machinery enterprises in Nairobi County, Kenya. This is supported by the fact that a large percentage of the respondents in the small and medium enterprises in Nairobi County were found to be dissatisfied with the innovation technologies to growth. However, a very small percentage of the respondents were found to be satisfied with the innovation technologies to growth. This is confirmed by a large percentage of the respondents who showed that innovation technologies contributed to growth to a low extent. The study established that this contribution to growth is due to the fact that innovation technologies was expensive to the small and medium electrical machinery enterprises in Nairobi County, high cost of innovation technologies and that most enterprises engaged in traditional products and services, lack of technical and entrepreneurial skills hence not embracing the existing innovation technologies. Magu (2011) give account of building up technological capabilities which will raise product quality, productivity, product variety and engage in production of the modern high growth potential. Technology is a high – level strategic thrust popular in many organizations (Hayes, Wheelwright & Clark, 1988) that deals with decisions about technology used in the organization such as technological platform products and services, machinery and computer networks and telephone exchanges. Many

organizations used technology as an enabler to enhance knowledge better, improve process efficiency and enhance product offerings.

Conversely, the study found that some respondents indicated that innovation technologies contributed significantly to growth. This was accomplished by enhancing knowledge, better improved process efficiency, profound product and service delivery. In addition, innovation technologies contributed insignificantly to growth due to low technologies used, advanced and expensive technologies applied. Lack of technical and entrepreneurial skills, inadequate resources and lack of capacity were the causes of insignificance contribution of innovation technologies to growth. The study found that reduced product and service quality and reduced service variety were the effects of insignificance contribution of innovation technologies to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya. The research study found that reduced technological capacities, turnover, employment and lack of objectives to replace outdated products and services were the ultimate effects of insignificance contribution of innovation technologies to growth.

4.5 The innovation ideas

The research study found that the majority of the respondents of the small and medium electrical machinery enterprises in Nairobi County, Kenya were satisfied with the innovation ideas to growth. Nevertheless, a minority of the respondents were found to have neutral satisfaction with the innovation ideas to growth. The research study found that a large percentage of the respondents to high extent stated that innovation ideas led to growth of small and medium electrical machinery enterprises in Nairobi County in Kenya while a small percentage of the respondents to a medium extent demonstrated that indeed innovation ideas led to growth. The study established that this state of affairs was due to the fact that generation of new opportunistic and improved ideas and products were achievable. The study revealed that new products, services and ideas, better performance than other enterprises and increased sources of information for innovation ideas from internal and market sources were the main significance contributions of innovation ideas to growth.

This is in conformity with the argument of O'sullivan and Dooley (2009) that idea generation is the first stage of innovation process which relates to the creative activity of generating an opportunistic idea. Ideally, this stage involved the continuous scanning of the internal and external environment for threats and opportunities that may be developed into an innovation by the small and medium electrical machinery enterprise in Nairobi County in Kenya. The

stage involves mining the sources of innovation for new ideas and evaluating solutions to identified problems. Tidd, Bessant and Pavitt (2005) explain aspects of leadership such as shared vision of the future, extensive communication, desire to innovate and achievement of high involvement in the innovation process as key components of an innovative organization. Similarly; Bwisa (2011) and Trott (2012) suggest that innovation is the improving (adding value) to something already existing, successful implementation of novel and appropriate ideas and commercialization of an invention.

On the contrary, the respondents noted that insufficient usage of existing institutional and other cross cutting sources for innovation ideas, lack of cooperation with innovative learning institutions and failure to link with other enterprises as the key factors that led to insignificance of innovative ideas to growth. The study established that inadequate linkage with other small and medium electrical machinery enterprises in Nairobi County in Kenya, lack of creativity and innovation culture, failure to involve universities and relevant cross cutting research institutions for innovative ideas and lack of policy frameworks as the causes of insignificance of innovation ideas to growth. The research study found that insignificance contribution of innovation ideas resulted to reduced business opportunities, lack of growth on the range and quality of products or services and insufficient technical and entrepreneurial skills.

5.0 Conclusions

Despite existence of positive contributions with respect to innovations, there is still need to conduct a more comprehensive survey, possibly involving a much larger population of the small and medium electrical machinery enterprises in Nairobi County in Kenya in order to accurately capture these contributions. Nevertheless, the results of the survey could be used to make initial policy recommendations based on the emerging contributions. It will also be a basis to engage actors in the County system of innovations to use the results to evaluate their performance and make appropriate adjustments based on the evidence adduced.

6.0 Recommendations

The research study has put forward the following recommendations for consideration in order to stimulate entrepreneurship and economic growth through innovations in small and medium electrical machinery enterprises in Nairobi County in Kenya:

1) In order make innovation products contribute adequately to growth the government should develop a policy framework for supporting and sustaining innovation products.

2) Small and medium electrical machinery enterprises should improve and increase capacity for innovation products.

3) To realize contribution of innovation processes to growth the government should initiate programs to tap and develop human resources for innovation processes.

4) The small and medium electrical machinery enterprises in Nairobi County in Kenya should increase methods for innovation processes.

5) The government should develop policy framework that could support and sustain services, encourage adaptability and application of ICT in innovation services and improve business environment especially the cost of doing of business.

6) The small and medium electrical machinery enterprises in Nairobi County in Kenya should be flexible enough and reach out for other enterprises to exchange knowledge of innovation services to growth.

7) For good support of innovation technology to be realized the government should develop policy framework to support and sustain innovation technologies.

8) The government should identify and recognize small and medium electrical machinery enterprises that excel in innovation technologies.

9) For good support of innovation ideas to be achieved there should be provision of unlimited and accommodative ideas.

10) The small and medium electrical machinery enterprises in Nairobi County in Kenya should work with sources of innovation ideas such as higher learning institutions, high ideas start-ups and competing innovative enterprises to create room for maximum growth.

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