INNOVATION CHALLENGES ENCOUNTERED BY SMALL AND MEDIUM ENTERPRISES IN NAIROBI, KENYA

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Abstract
The current business environment is characterized by tough and unpredictable competitions. All organizations, regardless of their size and scope of operation are faced with tough competition challenges and in order for them to cope with this state of affairs, SMEs are turning to innovation in order to stay afloat. Kenya has a sizeable SME sector that the government is making efforts to grow and develop. Recent studies have looked at the effective factors which are seen to lead to the increase in SME innovativeness and performance. However, there is still a gap in knowledge that this study aimed at addressing by attempting to answer the question, what innovation challenges do SMEs in Nairobi encounter? This study applied descriptive research design and the target population was all the registered Small and Medium Enterprises in Nairobi. The study employed purposive sampling technique where only 100 small and medium enterprises listed in the top 100 medium sized companies in the East African region in the year 2016 were picked as the sample. Data was collected using questionnaires and was analyzed through Descriptive statistics such as percentages, means, frequencies and standard deviation. One of the major findings of the study was that the level of innovativeness in the businesses varies from one business to another, where, 41% of the businesses report to have good innovation levels, 32% have average level, 19% are excellent in innovation while 8% are poor. Regardless of the level of innovation, 45% of the businesses still find innovation very challenging, 37% of the businesses find innovation moderately challenging while the remaining 18% find innovation not challenging at all. The study further found out that several innovation
challenges that affect SMEs in Nairobi are knowledge based challenges, resource based challenges, technological based challenges, legal and policy based challenges and environmental based challenges. The study therefore recommended that SMEs should partner with other large corporations that offer varying services to jointly invest in common innovative activities because doing so leads to cost reduction while achieving similar goals.

Keywords: Innovation Challenges, Small and Medium Enterprises, Performance, Kenya

INTRODUCTION
The current business environment is characterized by unpredictable competitions. According to Poorangi, Khin, Nikoonejad and Kardevani (2013) all organizations, regardless of their size and scope of operation are faced with tough competition challenges and in order for them to cope with this state of affairs, SMEs are turning to innovation in order to stay afloat. According to Farsi and Toghraee (2014), there are implications that come about from failing to innovate which result to collapse of economies and dropped competitiveness. Senge and Carstedt (2001) assert that innovation is a basic method used by a company so as to attain growth that can be sustained and address the main challenges faced by SMEs in the competitive environment today such as greater cost efficiency and providing new products to meet the customers’ demands. Based on a study by McEvily et al. (2004) whereby he discussed the role of innovation and its importance in driving competitiveness, more profits and greater productivity are the key issues used to unlock the potential of many SMEs. According to Zahra et al. (1999) SMEs ought to identify innovative opportunities that are among available opportunities in business and exploit them for their business good. Innovative opportunities mean a set of different units within processes whereby the actors identify, act upon and ultimately realize new resources and needs in the market so as to try to benefit from their future economic potential.

The business environment is rapidly changing; Stanislawsky and Olczak (2010) research shows that many companies have poor strategies in place to be innovative and respond to the challenges brought about by environmental changes. Organizations need to innovate in order to stay afloat but their employees are not once empowered and as well lack motivation to innovate. According to Comtesse, Hodgkinson and Krug (2002) there are several cultural challenges to innovation, such as averting risk, public complacency and lack of appreciation of high value innovation provincialism and closed networks. Necadova and Scholleová (2011) identified the inability of framework tools for innovation in the school curriculum, limited labour force and lack of an entrepreneurial mindset as the challenges to innovation among the organizations in the
Czech Republic. Tiwari and Herstatt (2010) found poor access to financing, legal barriers, poor political vision and growth, the infrastructure and intellectual capital as challenges on the innovation.

Small and medium enterprises contribution to the economy has been acknowledged adequately (Perker, 2011; Henning, 2003; Miller, Besser, Gaskill and Sapp, 2003). The vital role this sector plays has gained the support of most governments, multilateral agencies as well as nongovernmental organizations worldwide (Perker, 2011). However, according to Perks and Struwig (2005), survival, success and growth of small business will be achieved when the SME sector is innovative. In accordance to the Organization for Economic Co-operation and Development OECD (2004) report, SMEs play a major role in the evolution of developing countries to industrial economy. The report affirms notion that SMEs typically account for more than 90% of all enterprises outside the agricultural sector, they form a main source of income generation and thereby generate a valuable chunk of domestic and export earnings. Based on the report by OECD (2004), SME development emerged as a key instrument in economic growth of Africa. In Nairobi SMEs are hindered by a number of challenges which include poor infrastructure, inadequate capital, inadequate knowledge and skills, limited market access, and rapid changes in technology. Corruption and unfavorable regulatory environment are other challenges (Wanjohi and Mugure, 2008). Wanjohi (2009) states that the challenges can be minimized if SMEs embrace innovation.

Kenya has a sizeable SME sector that the government is making efforts to grow and develop. The Small and Medium sized enterprises have always taken a significant role in the Kenyan economy (Muchau, 2013). According to Bernadette (2012) in Kenya SMEs constitute the basic source of materials, process, ideas and services that the large enterprises cannot be able to do or they do not want to do. The current constitutional framework and the new Micro and Small Enterprise Act 2012 (MSE Act, 2012) provide a window of opportunity through which the evolution of SMEs can be realized through the devolution framework. Based on the future projections of how this sector is expected to grow especially with the implementation of the Economic Recovery Strategy, a study on the innovation challenges facing SMEs in Nairobi is important.

Recent studies such as Mitra (2000); Terziovski (2003); Massa and Testa (2004) have looked at the effective factors which are seen to lead to the increase in SME innovativeness and performance in Asia, Europe and Brazil. In their research, good policies and training of employees will favour innovation in organizations. Agwu and Emeti (2014) looked at the overall issues, challenges and prospects of SMEs in PortHarcourt City-Nigeria, they found that lack of managerial skills, lack and poor financing, insufficient social structures, lack and poor
managerial skills and also heavy taxation were among the major challenges faced by SMEs. Machi and Kyalo (2016) looked at adoption of innovation among SMEs in Nairobi and they found that innovation and venturing done within a company influences the company's performance. A study by Bowen, Morara and Mureithi (2009) made a focus on management of business challenges among SMEs in Nairobi-Kenya. They found that SMEs are challenged by stiff competition amongst other SMEs and also large firms, access to cheap imports, lack of credit facilities, lack of security for their businesses. However, failure and bad performance have been of interest to researchers for many years and has thus become the subject of a lot of analysis to prove the benefits of innovation in the growth of the SMEs (Perks and Struwig, 2005). However, there is still a gap in knowledge that this study aimed at addressing by attempting to answer the question what innovation challenges do SMEs in Nairobi encounter?

LITERATURE REVIEW

Theoretical underpinning of the study

A number of theories in strategy have been devised to explain why and how innovation is applied in organizations to compete in the market. In this regard, Schumpeter’s theory of innovation and knowledge based theory of the firm have attempted to explain innovation within businesses.

Schumpeter (1934) pioneered in explaining what role innovation plays in the entrepreneurial process. Schumpeter (1942) refers to innovation as a process of wealth creation which occurs when existing market structures are disrupted when new goods and services are introduced which later cause a shift of resources from the existing firms to the new ones thus allowing the growth of the new firms. According to Schumpeter, entrepreneurs assist the development process of an economy, this is mainly because the people who are creative, innovative with foresight in a given society are the entrepreneurs. He went further and added that when the entrepreneur introduces a new production system or new product, discover a new source of raw materials, open a new market, or introduce a new organization into the industry and according to him then that is when innovation occurs.

Accordingly, Schumpeter calls innovation the specific tool of entrepreneurs, the only way used by entrepreneurs to exploit change as an opportunity to create a different business or a different service. Schumpeter (1942) stressed the role of entrepreneurs as primary agents effecting creative destruction, and emphasized to the entrepreneurs the need to explore fully the sources of innovation, the changes and the symptoms that give an indication to the opportunities for successful innovation; as well as their need to know and apply the principles that lead to successful innovation.
A study by Schumpeter (1934) found that entrepreneurs, who are also independent inventors in large corporations, have been noted to create an opportunity for achieving new profits with their innovations. Thereafter, others will imitate when attracted by super-profits creating a wave of investment that would reduce the profit margins earned from innovation. However, before the economy is even able to settle, a new set of innovations will be conceptualized and begin the business cycle over again Schumpeter (1934).

Knowledge based theory of the firm by Penrose (1959) and later expanded by others Barney (1991), Wernerfelt (1984) and Conner (1991) considers having knowledge as the most strategically significant resource for the firm. The proponents of this theory argue that resources that are based on knowledge are usually difficult to mimic and are complex at a social level. According to Grant (1996), knowledge is the key driver of innovation and knowledge is among the major determinants of firms’ sustained competitive advantage and superior business performance. This knowledge is embedded and carried through several levels of the organization including documents, systems, organizational identity and culture, policies, routines and employees Conner (1991).

According to Grant (1996) in the knowledge based theory of the firm, the basic objective of a firm is to apply the existing knowledge to produce goods and services. A firm gains competitive advantage by use of knowledge and skills, because a firm is able to innovate new processes and products, or improve existing ones to be more efficient and effective through the use of knowledge and skills (Nonaka and Takeuchi, 1995). Grant (1996) treats knowledge as a generic resource, and not as having special characteristics. Therefore it implies that the lack of superior knowledge limits the firm’s ability to come up with new products and services, thus limiting its competitiveness in the market (Alavi and Leidner, 2001). This theory is very significant to this study because as research has demonstrated; intangible resources play an important part in the organization and that they have a positive impact that gives the competitive position of the firm as they truly generate sustained competitive advantage.

The Concept of Innovation

Different studies have different definition of innovation. Linder et al. (2003) defines innovation as the implementation of new ideas that would in turn create value. However in this study we focus mainly on the adoption of new products and processes that improve competitiveness and general profitability in accordance to the specifications and needs of the customers. According to Kotsemir, and Abroskin (2013 innovation has become the synonym for the development of nations, technological progress and driver of business success. Kotsemir, and Abroskin (2013) refer to the definition of innovation by OECD (2005) is that innovation is the implementation of a
new or significantly improved product or service or process, a new marketing method or a new organizational method in business practices or, workplace organization or external relations. However, Tiwari (2008) expands the definition to show that the minimum requirement for an innovation is that the product, process, marketing method or organizational method ought to be significantly improved or new to the firm.

Based on the Oslo Manual (2005), there are four main forms of innovation. Process innovation is the implementation of a new or significantly improved production or delivery method which includes significant changes in techniques; product and service innovation is referred to as the introduction of a good or service that is new or significantly improved with respect to its intended use or its characteristics; marketing innovation is referred to as the implementation of a new marketing method which involves making significant changes in the design of the product or packaging, product promotion or pricing, the product placement, and organizational innovation which is also referred to as the strategic innovation, is the implementation of a new organizational method in the company’s business practices, workplace organization or external relations.

Lately, big claims have been made in regards to the importance of innovation to organizations’ economic success. Baker (2002) asserts that more innovative companies enjoy a share-price premium over less innovative counterparts. Additionally innovation is a key driver of how the market values companies, which therefore concludes that innovation has increased significantly over the years. Innovation is important for companies across all sectors of the economy such as; high and low technology, manufacturing and services and in slowly as well as in rapidly changing environments.

**Innovation Challenges**
Innovation has been perceived as playing a serious role in the long-term survival of organizations Van de Ven (2008). Despite of the outlined benefits, SMEs still face challenges that can stimulate good innovations. These challenges include knowledge challenges, resource challenges, technological challenges, legal and policy challenges and environmental challenges.

**Knowledge Challenges**
The advancing telecommunication, information technology and the internet have globally changed the business environment. The foundations of economic life and business are built on the availability of knowledge. Availability of good knowledge labourers, knowledge assets and knowledge ventures are the epitome of attention in the development of and growth of
businesses. This lack of knowledge assets brings new challenges to entrepreneurship both at the corporate levels and individual level in terms of innovation (Liang, 2002).

SMEs base their competitiveness generally on low prices. Most SMEs still depend on labour and capital in their operations; this forces them to fail in achieving operational excellence. Their focus is mainly on achieving increased productivity or economy of scale while they neglect value creation from the utilization of knowledge.

SMEs don’t have proper knowledge infrastructure, suffer from the commercialization of knowledge and as well unknowledgeable human resources. In this case, lack of university resources to identify, protect and to market intellectual property to the private sector. Therefore, the universities channel out people with shortage of the skills to bridge the gap in the research and business communities that can lead to innovative ideas.

In order to get passed the issues indicated above, governments have to improve educational systems from theoretical and provide technical education. SMEs should engage in knowledge management tasks such as: getting to know the knowledge necessary by interviewing suppliers, clients or the colleagues. This is so as to determine the available knowledge by sharing the already done and successful projects and best practices; determine the gap in knowledge available and the necessary knowledge; develop knowledge through research, education and training, or through carrying out customer satisfaction surveys; acquire knowledge by employing only the skilled and qualified personnel; purchase of patents and licences, as well as purchase of market research results; lock in knowledge to transform the developed or the purchased knowledge; into a systematic and structural form whereby it is determined and made available to all persons. The knowledge evaluation should be reused as input for the determination of available and necessary knowledge. Evaluation is then done by internal and external audits, project evaluations, taking customers through customer satisfaction surveys or benchmarking.

Resource Challenges

It is good to have limited resources that can make you only pick and/or choose one or two innovative ideas for action and implementation. Majority of big firms fall into this category but on the contrary, many small firms have little resources which they literally can’t action or implement any of their innovative ideas. Resources in this case refer to finances, space for conducting the business, human resource, machinery and equipments. In this case SMEs may have so many great ideas that it becomes overwhelming in a way that makes it impossible to even know where to begin. In this case, a lot of innovative ideas seem great at first glance, but upon closer inspection turn out to be completely impractical. There are few organizational challenges people
face when they try to turn an idea into action, and ways individuals might be able to use those challenges to their advantage. SMEs can make their organizations more supportive of innovative employees, more nurturing of ideas and ultimately the recipients of more successful outcomes. Many companies are strapped for cash and resources, especially over the last few years, and no matter how many great ideas float to the top, not all of them can come to fruition. And it’s also tough to keep your eyes on the big strategic goal when you’re just trying to survive day to day (Wanjohi, 2012).

**Technological Challenges**

Shengbin (2011) argues that in the impact of technology selection on innovation success indicated the innovation challenges that organizations face in terms of technology. Technology has the potential to virtually revolutionize all types of business. Most firms are seeking how to make use of the available intelligent systems in the business processes so as to make them more agile, dynamic, productive and proactive. Presently, there is a large gap between the benefit of technology and what actually gets delivered. Firms still report high development costs despite the presence of technology that should bring them down. Technology in developing countries is challenged by the lack of enough money, by the nature of their organization still being innovative and by being in a rapidly changing environment. To compete with larger competitors, small organizations must develop advantages of flexibility and speed of response. However, virtually all the research on technology and innovation management has been taken by large firms.

**Legal and Policy Challenges**

Regulatory framework has been identified as important factor influencing the innovative activities of companies, industries and whole economies. In the case of innovative businesses in general, OECD (2012) indicated administrative framework, government regulations and public policies that have an impact on the operations of firms will definitely influence the innovative growth of companies. In simple terms, in the case barriers are reduced, administrative framework will encourage business entrepreneurship. In contrast, substantial costs and complex registration processes can discourage entrepreneurial activity. Very long and expensive business registration procedures divert a lot of human and financial resources away from productive business activity, just when the company is the most fragile. Rigid regulations sometimes encourage entrepreneurs to carry out their business activities in the informal sector, specifically where the environments has weak legal framework, as it is in the case of less developed economies OECD (2012). The outcome of poor legal framework is that
entrepreneurs are denied of access to opportunities and protections provided by the law, which might be fatal to business expansion.

**Environmental Challenges**
The external environment has an important role in innovation development. To generate a successful innovation project, enterprises are forced to look for a wide range of expertise and knowledge that is provided by several complementary sources. According to Enkel et al. (2009) enterprises are often forced to collaborate with external environment so as to expand their range of skills and expertise and also seek financial help for their innovation development. However, if organizations don’t cooperate with external environment it will reduce innovativeness. In addition, governments have a vital role in stimulating an enterprise to increase innovation activities. De Jong and Hippel (2009) observed that the governments can subsidize Research and Development and tax credits to lower innovation cost. Another way governments can improve the development of innovation is through the use of intellectual property law to grant enterprises who qualify temporary monopolies on their innovation-related knowledge.

Muscio et al. (2010) gives another view of the external environment where demand-side has effect on innovation explored in the recent years. To begin with, SMEs and policy-makers should be concerned with the crucial role of creating demand for innovation. Muscio et al. (2010) in their study, confirmed from other studies that new technological paradigms emanate from a rise in demand for developments that lead to innovation Demand forces alternatives among competing firms that gives direction to the evolutionary process that give brings forth to innovation. However, in the place demand is weak, inventive and innovative activities dry.

Secondly, for an enterprise to survive in a globally competitive market, an enterprise has to utilize the opportunities to efficiently serve their markets. Failure to take advantage of the environment forces enterprises to become less involved in innovative activities.

**RESEARCH METHODOLOGY**
This study applied descriptive research design. The target population was all the registered SMEs in Nairobi County. The study employed purposive sampling technique where only 100 small and medium enterprises listed in the top 100 medium sized companies in the East African region in the year 2016 were picked as the sample. Primary data was collected through questionnaires. Descriptive statistics such as percentages, means, frequencies and standard deviation was used to analyze the data. Factor analysis was also done to determine the most critical innovation challenges. Data was presented in the form of bar graphs and pie charts.
ANALYSIS AND RESULTS

Response rate
Out of the 100 questionnaires that were distributed to the small and medium enterprises listed in the top 100 medium sized companies’ East Africa 2016, 68 of them were filled and returned. The response rate was 68%.

Demographic profile of respondents

Age of the business

Going with the findings from the primary data, 48% of the businesses have been operational for over 6 years, 40% of the businesses have been in operation for 4 to 5 years while only 12% of the enterprises have been operational between 2-3 years. However, 0% of the businesses have been in operation for 1 and less as shown in figure 1 above.

Gender of the respondents

Going with the findings from the primary data, 28% of the respondents are female while 72% are male.
The respondents were represented by 72% men as well as 28% women as shown in the figure 2 above.

Age of the respondents

From among the respondents, 34% are aged 30-39 years, 25% are aged between 40-49 years. However, 19% are aged between 50-59 years, 16% are aged 29 years and below but 6% are above 60 years of age as shown in the figure 3 above.

Nature of Organization

From among the respondents, 34% are aged 30-39 years, 25% are aged between 40-49 years. However, 19% are aged between 50-59 years, 16% are aged 29 years and below but 6% are above 60 years of age as shown in the figure 3 above.

Nature of Organization
The nature of enterprises involved in this study were 85% private limited company, 10% are represented by the family owned businesses, 5% partnership. The sole proprietor and public limited company had a 0% representation as shown in the figure 4 above.

**Type of Business**

![Type of Business](image)

However, the type of businesses include, 21% were in the real estate, 16% in agriculture, 15% in financial services, 13% in construction, 12% in manufacturing (including gas, electricity and water supply), 9% in wholesale or retail trade, 7% represented the business in transport, 5% in mining other business had a 2% representation as shown in Figure 5 above.

**Number of employees**

![Number of employees](image)
Additionally as shown in the figure 6 above, 41% of the respondents have between 81-100 employees, 30% of the respondents have 61-80 employees, 22% of the respondents have 41-60 employees while 7% of the respondents have 20 and less employees.

*Business Innovation*

<table>
<thead>
<tr>
<th>Is your business innovative</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>27</td>
</tr>
<tr>
<td>No</td>
<td>41</td>
</tr>
</tbody>
</table>

As shown in table 1 above, the respondents who said their businesses are innovative were 27 and 41 respondents said their businesses were not innovative.

*Rate of business innovation*

<table>
<thead>
<tr>
<th>Rate of business innovation</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>13</td>
</tr>
<tr>
<td>Good</td>
<td>28</td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
</tr>
</tbody>
</table>

As shown in the table 2 above the respondents who said the businesses had excellent innovation were 13, 28 respondents said the innovation had a good rating, 22 said it was average and 5 rated it as poor.

*Rate of innovation challenges*

<table>
<thead>
<tr>
<th>Rate of innovation challenges</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very challenging</td>
<td>30</td>
</tr>
<tr>
<td>Moderately challenging</td>
<td>26</td>
</tr>
<tr>
<td>Not challenging</td>
<td>12</td>
</tr>
</tbody>
</table>
As shown in the table 3 above the respondents had a varying rating on how much the innovation challenges affect them. There were 30 respondents, who said the innovation challenges were very challenging, 26 said the challenges were moderately challenging and 12 respondents said the innovation challenges were not challenging.

**Innovation Challenges**

There are several innovation challenges that affect SMEs in Nairobi. These can be categorized as knowledge based challenges, resource based challenges, technological based challenges, legal and policy based challenges and environmental based challenges.

*Knowledge Challenges*

<table>
<thead>
<tr>
<th>Knowledge Challenges</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapidly advancing technology making it a struggle to keep up with it</td>
<td>2.7059</td>
<td>0.5412</td>
</tr>
<tr>
<td>Lack of availability of knowledgeable laborers</td>
<td>1.3824</td>
<td>0.2765</td>
</tr>
<tr>
<td>Lack of innovative ideas</td>
<td>1.4706</td>
<td>0.2941</td>
</tr>
<tr>
<td>Lack of access to institutions that teach on entrepreneurial skills</td>
<td>2.9853</td>
<td>0.5971</td>
</tr>
<tr>
<td>Institutions that pass on the entrepreneurial knowledge are expensive</td>
<td>3.0882</td>
<td>0.6176</td>
</tr>
<tr>
<td>Lack of knowledge on how to use the already existing technology eg. computers and software</td>
<td>2.9559</td>
<td>0.5912</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>3.6765</td>
<td>0.7353</td>
</tr>
<tr>
<td><strong>Average Mean</strong></td>
<td><strong>2.0840</strong></td>
<td></td>
</tr>
</tbody>
</table>

With regards to the knowledge based challenges, lack of availability of knowledgeable laborers was rated by the respondents as the major challenge with a mean of 1.3824 with a standard deviation of 0.2765, followed by lack of innovative ideas with a mean of 1.4706 and a standard deviation of 0.2941. Following is rapidly advancing technology making it a struggle to keep up with it with a mean of 2.7059 and standard deviation of 0.5412, followed by lack of access to institutions that teach on entrepreneurial skills with a man of 2.9853 and standard deviation of 0.5971, lack of knowledge on how to use the already existing technology e.g. computers and...
software follows with a mean score of 2.9559 and a standard deviation of 0.6176, then is the institutions that pass on the entrepreneurial knowledge are expensive with a mean of 3.0882 and standard deviation of 0.6176. Finally are the other noted challenges with a mean of 3.6765 and standard deviation of 0.7353. The average mean is 2.0840 as shown in the table 4 above.

Resource Challenges

<table>
<thead>
<tr>
<th>Resource Challenges</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited and even lack of financial resources</td>
<td>1.4412</td>
<td>0.2882</td>
</tr>
<tr>
<td>Lack of adequate space to run the business</td>
<td>3.1618</td>
<td>0.6324</td>
</tr>
<tr>
<td>Inadequate machines and equipment</td>
<td>2.9412</td>
<td>0.5882</td>
</tr>
<tr>
<td>Expensive skilled labor</td>
<td>2.0588</td>
<td>0.4118</td>
</tr>
<tr>
<td>Expensive machinery and technology</td>
<td>2.3529</td>
<td>0.4706</td>
</tr>
<tr>
<td>Lack of adequate business managerial training</td>
<td>2.7353</td>
<td>0.5471</td>
</tr>
<tr>
<td>Rapid technology changes making it expensive and hard to keep up</td>
<td>3.2206</td>
<td>0.6441</td>
</tr>
<tr>
<td>Lack of budgeting/little resources allocated for Research and Development for SME’s</td>
<td>2.8235</td>
<td>0.5647</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>4.1176</td>
<td>0.8235</td>
</tr>
<tr>
<td><strong>Average Mean</strong></td>
<td><strong>2.7614</strong></td>
<td></td>
</tr>
</tbody>
</table>

With regards to resource based challenges, businesses reported, limited and even lack of financial resources as a major resource challenge with a mean score of 1.4412 and a standard deviation of 0.2882, followed by expensive skilled labor at a mean score of 2.0588 and a standard deviation of 0.4118. Expensive machinery and technology was noted to have a mean of 2.3529 and a standard deviation of 0.4706, lack of adequate business managerial training follows with a mean of 2.7353 and standard deviation of and a standard deviation of 0.5471 following closely is lack of budgeting/little resources allocated for Research and Development for SME’s with a mean of 2.8235 and a standard deviation of 0.5647. Inadequate machines and equipment has a mean of 2.9412 and a standard deviation of 0.5882 followed by lack of adequate space to run the business which has a mean of 3.1618 and standard deviation of 0.6324. Rapid technology changes making it expensive and hard to keep up comes in as the second least challenge with a mean of 3.2206 and standard deviation of 0.6441. Lastly we have
others with a mean of 4.1176 and standard deviation of 0.8235. The average mean is 2.7614 as shown in the table 5 above.

**Technological Challenges**

<table>
<thead>
<tr>
<th>Technological Challenges</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost of technology</td>
<td>1.7647</td>
<td>0.3529</td>
</tr>
<tr>
<td>Lack of skills to use the technology</td>
<td>1.9265</td>
<td>0.3853</td>
</tr>
<tr>
<td>Rapidly changing technology making it difficult to keep up and use</td>
<td>2.8235</td>
<td>0.5647</td>
</tr>
<tr>
<td>Risk of the business data being hacked or stolen from the company computers</td>
<td>3.0441</td>
<td>0.6088</td>
</tr>
<tr>
<td>High development cost despite use of technology</td>
<td>1.9559</td>
<td>0.3912</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>3.7500</td>
<td>0.7500</td>
</tr>
<tr>
<td><strong>Average Mean</strong></td>
<td><strong>2.5441</strong></td>
<td></td>
</tr>
</tbody>
</table>

Another type of innovation challenge is based on technology, where the high cost of technology is rated the major challenge with a mean 1.7647 and a standard deviation of 0.3289 followed by lack of skills to use the technology with a mean score of 1.9265 and a standard deviation of 0.3853. High development cost despite use of technology follows with a mean of 1.9559 and standard deviation of 0.3912. Rapidly changing technology making it difficult to keep up and use is rated with a mean of 2.8235 and standard deviation of 0.5647 followed by risk of the business data being hacked or stolen from the company computers is a technology based challenge rated at 3.0441 and a standard deviation of 0.6088. The least challenge is the others with a mean of 3.7500 and standard deviation of 0.7500. The average mean is 2.5441 as shown in the table 6 above.

**Legal and Policy Challenges**

<table>
<thead>
<tr>
<th>Legal and Policy Challenges</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor economic policies that do not support business growth</td>
<td>2.3529</td>
<td>0.4706</td>
</tr>
<tr>
<td>Too many business regulations</td>
<td>2.0588</td>
<td>0.4118</td>
</tr>
</tbody>
</table>
Many costs to the county government towards opening and running a business 1.9118 0.3824
Lack of government support 2.6471 0.5294
High taxes and government revenue 1.9559 0.3912
Lack of information in patenting and copyrights 3.1618 0.6324
Corrupt syndicates that hinder development and growth for all businesses 1.4706 0.2941
Others (Specify) 3.9853 0.7971
**Average Mean** 2.4430

The other innovation based challenges emanate from legal and policy issues. Here, businesses reported corrupt syndicates that hinder development and growth for all businesses as a major challenge with a mean score of 1.4706 and a standard deviation of 0.2941 followed by many costs to the county government towards opening and running a business which have a mean score of 1.9118, standard deviation of 0.3824, then high taxes and government revenue with a mean of 1.9559 and standard deviation of 0.3912 respectively. However, lack of information in patenting and copyrights as a challenge is not a major challenge rated at a mean score of 3.1618 and a standard deviation of 0.6324. Lastly the others has a mean of 3.9853 and standard deviation of 0.7971. The average mean is calculated as 2.4430. This is as shown in the table 7 above.

*Environmental Challenges*

<table>
<thead>
<tr>
<th>Environmental Challenges</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhering to the environmental regulations is difficult</td>
<td>1.6618</td>
<td>0.3324</td>
</tr>
<tr>
<td>Many environmental policy and regulations that make business operation difficult</td>
<td>2.2206</td>
<td>0.4441</td>
</tr>
<tr>
<td>Investors fear of investing because of the political and economic atmosphere</td>
<td>2.7647</td>
<td>0.5529</td>
</tr>
<tr>
<td>Lack of innovation drive</td>
<td>3.0441</td>
<td>0.6088</td>
</tr>
<tr>
<td>Lack of business networks</td>
<td>1.9559</td>
<td>0.3912</td>
</tr>
<tr>
<td>Policy and policy makers that do not support enterprise growth</td>
<td>1.8971</td>
<td>0.3794</td>
</tr>
<tr>
<td>Lack of laws that support intellectual property that grant enterprises security</td>
<td>2.1765</td>
<td>0.4353</td>
</tr>
<tr>
<td>Others (Specify)</td>
<td>3.9853</td>
<td>0.7971</td>
</tr>
<tr>
<td><strong>Average Mean</strong></td>
<td><strong>2.4632</strong></td>
<td></td>
</tr>
</tbody>
</table>
The other category is based on the environmental challenges, where the respondents indicated adhering to the environmental regulations is difficult as a major innovation challenge with 1.6618 and a standard deviation of 0.3324 followed by policy and policy makers that do not support enterprise growth with a mean score of 1.8971 and standard deviation of 0.3794. Following closely is lack of business networks with a mean of 1.9559 and standard deviation of 0.3912. Lack of laws that support intellectual property that grant enterprises security garnered a mean of 2.1765 and a standard deviation of 0.4353 followed by many environmental policy and regulations that make business operation difficult with a mean of 2.2206 and standard deviation of 0.4441. Investors’ fear of investing because of the political and economic atmosphere is not a very major challenge and has a mean of 2.7647 and standard deviation of 0.5529, it is followed by lack of innovation drive which earned a mean of 3.0441 and standard deviation of 0.6088. Lastly the others garnered a mean of 3.9853 and standard deviation of 0.7971. The average score is 2.4632. This is as shown above on table 8.

**DISCUSSION AND CONCLUSION**

Knowledge challenges were seen to affect the enterprises the most. The lack of availability of knowledgeable laborers is seen to be the one that affects the businesses the most. This supports the knowledge based theory of the firm which considers having knowledge as the most strategically significant resource for the firm. According to Grant (1996) knowledge is the key driver of innovation and knowledge is among the major determinants of firms’ sustained competitive advantage and superior business performance. Liang (2002) argued that lack of knowledge assets referring to the skilled labour, brings new challenges to the entrepreneurial world, this is both at the corporate levels and individual level in terms of innovation.

The resource challenges had an average mean score which was 2.7614. This supports Wanjohi (2012) who argues that there are a lot of innovative ideas that are known and even seem great but upon closer inspection turn out to be completely impractical because of lack of the resources to adequately implement them. Under the resource challenges we have the rapid technology changes making it expensive and hard to keep up having a mean score overall with a mean of 3.2206. In general the resource challenges had the least impact to lack of innovation in the enterprises.

The findings of the study are also supported empirically by the studies conducted. Ngugi (2013) carried out a study on how the intellectual capital influences the growth of the small and medium enterprises in Kenya. The study findings revealed that the Intellectual Capital components of knowledge leads to the development of managerial skills, entrepreneurial skills, and innovativeness of the owner have major positive significance contribution to the growth of
SMEs in Nairobi. A study conducted by Sharma and Bhagwat (2006) indicates that availability of appropriate technology in an organization is the bloodline of any business as a stimulant to innovation irrespective of its size. Abouzeedan et al. (2013) looked at the unique challenges SMEs face to innovation. In their study, they argued that challenges such as resources scarcity affect the level of SME innovation.

Technology in developing countries is challenged by the lack of enough money, by the nature of their organization still being innovative and by being in a rapidly changing environment that is according to the finding in a research done by Shengbin (2011) the findings are similar to the findings in this study which shows that, high cost of technology is rated the major challenge followed by lack of skills to use the technology. To compete with larger competitors, small organizations must develop advantages of flexibility and speed of response. Additional findings of the study show that many costs to the county government towards opening and running a business and high taxes and government revenue. Other findings include adhering to the environmental regulations is difficult as a major innovation challenge. These findings are summarized in a study by De Jong and Hippel (2009) and OECD (2012) who showed that regulatory framework has been identified as important factor influencing the innovative activities of companies, industries and whole economies.

The study found that innovation challenges affect the level of organizational innovation of the SMEs to a greater extent. The study revealed that innovation challenges that influence organization innovation such as product/service innovation, strategy innovation, process innovation, technology innovation, marketing innovation, organizational and people innovation. The study established that through overcoming innovation challenges, the business was able to increase profits, improve competitiveness, reduce costs, improve customer service, increase customer base, increase production, as well as improve service delivery. The study found that all you need in order to overcome the innovation challenges include but not limited to superior knowledge, enough tangible resources, superior entrepreneurial skills, superior technological advantage, favorable legal and policy and favorable environmental conditions which provides sustained competitive advantage. The study further revealed that challenges faced in innovation were selection of the project that represents the interest of the community, lack of institution assistance lack of knowledge, and lack of specific legislation on CSR and few interest of the company.

RECOMMENDATIONS
The study found that innovation challenges really affect SME performance with regards to their innovativeness, thus affecting their competitiveness. The researcher recommends that SMEs
should partner with other large corporations that offer varying services to jointly invest in common innovative activities as doing so leads to cost reduction while achieving similar goals. Large corporations can partner with SMEs to spearhead similar innovation objectives.

This study recommends that the industrialization ministry as well as relevant authorities designs a tax framework and policies that will foster innovation as well inspire among the SMEs. This will not only make it easy for future researchers to collect research data, but will also enable shareholders to evaluate the extent to which the firm has invested in promoting their company’s competitiveness through innovation.

LIMITATIONS OF THE STUDY

There are some limitations that were experienced during this study. The first limitation experienced during the study was the respondents’ unwillingness to give answers as they feared that they may either be victimized which could cost them their jobs. Thus, to curb this problem the researchers assured them that confidentiality would be maintained. Another limitation was that some questionnaires were not returned on time, to curb this, the researchers had to go to the business and fill in the questionnaire as the business owner and manager responded verbally to the questions addressed in the questionnaire. In addition, some questionnaires were partially filled, the researchers took it upon themselves to make phone calls to fill the data that was missing from questionnaires. The study had a limitation of time and resources, the study therefore employed a sample survey instead of a census survey.

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