EXAMINING MICRO, SMALL AND MEDIUM SCALE ENTERPRISES (MSMEs)
INNOVATION CAPACITIES IN MANUFACTURING SECTOR: A SURVEY OF NIGERIA

MOHAMMED, NDALIMAN ABUBAKAR
Faculty of Management and Human Resources Development, Universiti Teknologi Malaysia,
81310 Skudai, Johor, Malaysia
(Corresponding author)

ISMAIL, BTE KAMARIAH
Faculty of Management and Human Resources Development, Universiti Teknologi Malaysia,
81310 Skudai, Johor, Malaysia

GHAFOORIAN, HADI
Faculty of Management and Human Resources Development, Universiti Teknologi Malaysia,
81310 Skudai, Johor, Malaysia

ABSTRACT
Innovation is frequently viewed as the key to success in many arenas, from individual businesses to a nation’s general economic growth and development. The purpose of this study survey report is to examine MSMEs capacity to innovate in the manufacturing sector of Nigeria. The vast literature on innovation was reviewed with a view of providing and insight to the concept, need, and linkage to micro, small and medium scale enterprises in Nigeria. It was observed that there is strong rationale for innovative practices in MSMEs sector and contribute to the country GDP index. The study therefore concludes that MSMEs sector in Nigeria performance is likely to improve as they increase the way with which they mirror large companies by taking the advantages and opportunities provided by government for their growth and survival.

Keywords: Micro, Innovation; Small and Medium Scale Enterprises (MSMEs); Manufacturing; Nigeria

1.0 INTRODUCTION
Innovation is frequently viewed as the key to success in many arenas, from individual businesses to a nation’s general economic growth. It is seen as a vital element in economic growth in any country and the developing country to be specific (Oslo, 2005), where the economy is dominated by small and medium-sized business. SMEs, however, face significant challenges in their attempts to innovate due to their small size and limited resources. Since the 1960s to date, small and medium sized enterprises (SMEs) have been given due recognitions especially in the developed nations for playing very important roles towards fostering accelerated economic growth, development and stability within several economies. They make-up the largest proportion of businesses all over the world and play tremendous roles in employment generation, provision of goods and services, creating a better standard of living, as well as immensely contributing to the gross domestic products (GDPs) of many countries (OECD 2000). Over the last few decades, SMEs contributions to the development of the world has beamed the searchlight on the uniqueness of the SMEs and this has succeeded in overruling previously held views that SMEs were only “miniature versions” of larger companies (Al-Shaikh 1998; Gaskill et al. 1993). Several researchers have advanced that SMEs innovates differently from large companies despite their nimbler structures and barriers. This paper seeks to investigate SMEs innovation activities with a view of understanding their innovative capability in Nigeria.
2.0 LITERATURE REVIEW

2.1 Definition of Innovation

One of the initial difficulties in innovation research is defining exactly what innovation is. Common to all definitions is that an innovation is something new or novel. Beyond newness, definitions vary with academic perspective and application (Burgelman & Sayles 1986). Many researchers leave it to the reader to intuitively understand what a popular subject in management literature is now. The vast literatures on innovation has produced multitude of definitions, concepts and applications, theories, types and dimensions that could be referred as the major domains of Innovation. From the early work of Schumpeter in the 1930s and until today, business research has been and is increasingly directed toward understanding how innovation is created, utilised and importance for the development of organisations and societies. Studies have shown that Schumpeter was first to recognise the importance of innovation, whose work influence the field of economics and was among the first to proposed close relationship between entrepreneur, entrepreneurship and innovation. In his work, we sees innovation as “creation of new combinations, that is the introduction of new good, of a new quality of good, or a new method of production, the opening of new market, the conquest of a new source of supply of raw material or half-manufactured goods, and finally the carrying out of the new organisation of any industry” (Bigliardi et al, 2011).

2.2 The need for innovation

Innovation is a dynamic process which can adapt to changes in resources, technology or economics or even changes in a firm’s expectations for innovation (Australian Institute for Commercialisation, 2011). With business performance linked to overall innovativeness as innovative firms are up to twice as profitable as other firms (Akgun, Keskin, Byrne & Aaren, 2007; Gannon, 2007; Gilmore, 2009; Tidd, Bessant & Pavitt, 2005). Charan and Lafley (2008) contend that innovation not only promotes growth but also enhances a variety of capabilities that improve the ability to enter markets and attract customers. They state that by discovering new ways of doing things, employees also become more energized and productive, further leading to improvements in financial performance. Product or service development may be the most familiar form of innovation, but other types include processes, logistics, marketing and business model innovation (Australian Institute for Commercialisation, 2011; Charan & Lafley, 2008).

The developments of internet have allowed companies to expand their marketing channels to include websites are a prime example of marketing innovation. Both the strategy for innovation and the measure of success for innovation is based on a firm’s motivation for innovation (Australian Institute for Commercialisation, 2011). Without clear goals for innovation, commercialization of the results of innovation is not likely (Fischer, Polt & Vonortas, 2009). It is also important to determine partners’ motivation for innovation. If a partner’s goals are not being achieved, enthusiasm will wane and future collaboration could be endangered. According to the Australian Institute for Commercialisation (2011), common goals for innovation include developing a new product, selling or licensing the results of innovation, protecting or expanding market share, increasing recognition in the marketplace, better retaining staff and improving operational efficiency.
2.3 Classification of Innovation

Innovation types have been continually examined by researchers over the last centuries (Bakan and Yildiz, 2009) with literatures illustrating various types of innovations (Ama, 2006). Studies on innovation by (Bigliardi and Dormio, 2009; Clarysse et al, 1998; and Lundvall, 1992) and several surveys conducted by (Oslo Manual, 2005 and U.S Census Bureau, 2006) identified and distinguish four main types of innovations, namely product, process, marketing, and organisation with product and process innovations closely related to technological innovation while, marketing and organisational innovations broadening the range of innovations but are not technological innovations.

- **Product Innovation** – this refers to the introduction of goods and services that is new or significantly improved for its intended usage that may include the technical specification, components and materials, incorporated software or other characteristics their-in. it utilizes new knowledge or technologies, or a combination of the both existing knowledge and technologies (Oslo, 2005).

- **Process Innovation** – is the implementation of a new or significantly improved method of production or delivery. This includes significant changes introduced in techniques, equipment or software that are employed during the innovation phase (Oslo, 2005). Usually, it is used to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products or services. Largely, they are elements introduced into firm’s production or service operations that changes the way products are being produced.

- **Organisational Innovation** - is the implementation of a new method in firm’s business practices, workplace organisation or external relations. They are mostly intended to increase a firm’s performance by reducing administrative costs or transaction costs, improving workplace satisfaction (and thus labour productivity), gaining access to no tradable assets (such as non-codified external knowledge) or reducing costs of supplies (Oslo, 2005).

- **Marketing Innovation** – this is also the implementation of a new marketing method which has significant changes in its product design or packaging, product placement, product promotion or pricing with the aim of addressing customer needs, opening up new markets, or newly positioning the firm’s product on the market, with the objective of increasing the firm’s sales (Oslo, 2005). The purpose here is to identify (new) potential market and (new) ways to rendered service to target markets through different methods of sales. They are described in more detail below.

2.4 Comparing Innovation in MSMEs vs. large companies

In today’s rapidly changing world, the imperative for innovation is continuously increasing with both academic and practitioners alike interested in creativity and innovation of firms (Forsman, 2011; Dobni, 2008; Govindarajan and Trimble, 2005; Hammer, 2004; Christensen and Raynor, 2003; Hamel, 2002; Senge and Carstedt, 2001). The focus is further heightened with innovation been seen as the key competitive advantage firms must acquire in the twenty-first century (Rujirawanich et al, 2011; Dobni, 2008). Several studies attempt at connecting innovation to SMEs indicates that they have played important role economically and technologically despite their resource constraints (Rosenbusch et al, 2011) and have received little attention in the literatures (Forsman, 2011).
The role of MSMEs in innovation can therefore be appreciated outside contextual characteristics of the innovation process by understanding the behavioural factors and how such factors come into play (or not) within a specific context (Edward et al, 2005). Most available research on innovation to date applies to large companies, whereas the innovation process for SMEs is different as found in previous studies. For example, the most prominent difference between large companies and SMEs is in their number of employees (David and Brown, 1992). With the commonly used delineator of about 250 employees to constitute the total number of employees that works in SMEs (SMEDAN, 2010), the differences between large companies and SMEs characteristics are described in more detail below.

These characteristics also bring about the differences in their innovation capacity. With the large body of literature on innovation differences between large companies and SMEs, results of studies are still inconclusive and dependent on the measurement and interpretation of innovative capacities. Why earlier researches opined that traditional innovation indicators such as R&D expenditures, R&D employment, patents and innovation counts are not applicable for MSMEs (Acs and Audretsch, 1988; Tether, 1990), recent studies on MSME innovativeness have continue to show that small firms can keep up with larger firms in the field of innovation and show no difference in the quality and significance of the innovations produced. The question is not whether large companies are more innovative than MSMEs but more importantly is that MSMEs innovate differently from large companies with each one innovative capability different which is described in more detail below. Because, MSMEs have behavioural advantages and resource disadvantages in innovation, critical success factor for them in innovation is their horizontal management style which aid in their decision making at lower levels (Rothwell, 1992). With SMEs being more development oriented than research minded shows that many innovations by small firms are based on off the shelf technologies, concepts and resources offered by supplying industries. In short, an SME is not a little big business and innovate differently Bos-Brouwers (2010).

3.0 METHODOLOGY

This section will document the method of research used in this paper and give reasons for the particular approach taken. Other points that will be addressed are the reliability and validity of the data, limitations and delimitations, and the sources of data.

3.1 Documentation of Method

This paper takes the form of a research review on SMEs sector performance in Nigeria. This method, though not strictly a research methodology in itself (hence neither positivist or phenomenological), nevertheless provides an addition to existing knowledge by analysing and synthesising the research survey undertaken by others and SMEDAN on the activities of SMEs in Nigeria.

3.2 Recent Efforts by Nigerian Government to Stimulate the MSMEs Sector

The Micro, Small and Medium Enterprises Sub-sector have been identified as one of the critical elements to the achievement of the country’s vision 20-2020. The sub-sector has been globally acknowledged as the engine that drives the socioeconomic transformation of both the developing and developed countries. A nurtured and well-structured MSME sector contributes significantly to employment generation, wealth creation, poverty reduction and sustainable economic growth and development. Various attempts have been made by successive Government to stimulate the growth and development of the MSME sector in Nigeria after many years of neglect. The call for a
coordinating Agency for the MSMEs sub-sector dated back to 1987, when a study by the World Bank made the recommendation. Efforts by the Government to actualize it failed until 2003, when the Small and Medium Scale Industry Development Agency (Establishment) Act, enacted by the National Assembly created the Small and Medium Industry Development Agency (SMIDA). The National Assembly passed the SMIDA amendment bill in December, 2004. The Act changed the name of SMIDA to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). The Agency is today, the country’s apex institution with the statutory responsibility of facilitating the creation, resuscitation and stimulation of the growth and development of the Micro, Small and Medium Enterprises sector of the Nigerian economy. The establishment of SMEDAN is a giant stride by the Federal Government in repositioning the sector and realigning it into mainstream of the Nigerian economy. Other recent government efforts to stimulate the sector include the following:

- The Small and Medium Enterprises Equity Investment Scheme (SMEEIS)
- The N200 billion Small and Medium Scale Enterprises Guarantee Scheme (SMECGS)
- The N200 billion SME Restructuring/Refinancing Fund
- The N5 billion Dangote Fund for MSMEs
- The Counterpart Funding Scheme of the Bank of Industry

3.3 Contribution of MSMEs to the Gross Domestic Product (GDP)

One of the key objectives of study was to ascertain the contribution of the MSMEs to the nation’s gross domestic product (GDP). To achieve this, data was collected to reflect the structure of the economy especially as regards the major economic sectors that has an element of micro, small and medium activities. The analysis was carried out for twelve (12) activity sectors of the economy which include; agriculture, hunting, forestry and fishing; mining and quarrying; manufacturing; building and construction; wholesale and retail trade; hotel and restaurants; transport, storage and communications; financial intermediation; real estate, renting and business activities; education; heal and social work; and other community, social and personal services. At the end of the analysis it reveals that MSMEs contributed 46.54 percent to Nigeria’s GDP in nominal terms. The result further showed that in terms of contribution to each sector, MSMEs made the highest contribution to other community, social, personal service activities then followed by real estate, renting and business activities and agricultural activities which are described in more detail below.

3.4 Contribution of manufacturing sector to GDP

The overall manufacturing sector comprising of 33 activities is made up of oil refining, cement and other manufacturing. However, given the large scale nature of the oil refining and cement sub-sectors, this study found that MSME activities were prominent in the other manufacturing sub-sector. Activities under the other manufacturing sub-sector includes food, beverages & tobacco, textile, apparel & footwear, wood & wood products; pulp, paper & publishing, non-metallic products, domestic/industrial plastic & rubber, electrical & electronics, basic metal, iron & steel and motor vehicle & miscellaneous assembly. The analysis showed that the MSMEs contributes 63.74 per cent to the other manufacturing sector GDP with micro enterprises contributing 7.31 per cent, small
enterprises contributing 29.25 per cent and the medium scale enterprises contributing 27.18 per cent. They are described in more detail below.

3.5 Capacity Utilization of manufacturing sector

Looking at the manufacturing sector, the overall weighted average capacity utilisation of various products stood at 56.4 per cent. Viewing this across products, fruit juices and vegetable juice had its installed capacity utilized to the tone of 97.55 per cent, closely followed by palm coconut, palm kernel, babassu and linseed oil and their fractions, refined but not chemically modified ranked second, beverages ranked third with 92.28 percent utilization. While, the least installed capacity utilized is 10.26 per cent.

4.0 CONCLUSION

The study discussion from the study points to the fact that MSMEs sector in Nigeria are performing reasonable well and are likely to improve as they increase the way with which they mirror large companies by taking the advantages and opportunities provided by government for their growth and survival. In addition, micro, small and medium enterprises have proven to be more likely to report their entrance into new markets, increased market share and providing improved flexibility of production and service of innovation. These findings echo the results of another study conducted in Europe. According to the study of European Framework Programmes for Research and Development (Fisher et al., 2009, p. 8, 10), which state that “SMEs demonstrate more economically driven objectives (innovation, commercialization and market related) than large companies” although medium-sized companies seemed to reap the greatest benefits from innovation through participation in this program. Large businesses in that study were apparently the least successful project participants in regard to product or process innovation. A significant limitation to this study was that it could not compare data sought of MSMEs with other sectors in other to identify which sector is more capable of innovating than the other. Further research survey is required here in other to collect a holistic data of MSMEs innovative potentials.
REFERENCES


LIST OF FIGURES AND TABLES

Figure 1: Classification of Innovation

![Classification of Innovation Diagram](image)

Adapted from Bigliardi and Dormio, 2009 and Clarysse et al, 1998

Figure 2: Nigerian MSME sector contribution to GDP

![Nigerian MSME sector contribution to GDP](image)

Source: SMEDAN survey report, 2010
Figure 3: Nigeria MSMEs contributions to GDP

Source: SMEDAN survey report, 2010

Table 1: Differences in characteristics of MSMEs and Large companies

<table>
<thead>
<tr>
<th>MSMEs</th>
<th>Large companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dominant role of the entrepreneur/owner</td>
<td>• Delegated management control between board of</td>
</tr>
<tr>
<td>Resource poverty (capital, time, knowledge</td>
<td>directors and shareholders</td>
</tr>
<tr>
<td>and skilled personnel)</td>
<td>• Economy of scale, resource abundance</td>
</tr>
<tr>
<td>• Flexible organization capacities</td>
<td>• Bureaucratic rigidity</td>
</tr>
<tr>
<td>• Focus on short term</td>
<td>• Focus on mid to long term</td>
</tr>
<tr>
<td>• Strong local/regional focus and customer</td>
<td>• Strong (inter)national focus and looser ties</td>
</tr>
<tr>
<td>needs orientation</td>
<td>with customers</td>
</tr>
<tr>
<td>• Low degree of formalization</td>
<td>• High degree of formalization</td>
</tr>
<tr>
<td></td>
<td><strong>MSMEs</strong></td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>ADVANTAGES</strong></td>
<td></td>
</tr>
<tr>
<td>Flexibility of organization</td>
<td>• Less bureaucratic</td>
</tr>
<tr>
<td></td>
<td>• Responsive to changing circumstances (technology and market)</td>
</tr>
<tr>
<td></td>
<td>• Internal communications faster and more efficient</td>
</tr>
<tr>
<td>Owner/manager</td>
<td>• Dynamic, entrepreneurial</td>
</tr>
<tr>
<td></td>
<td>• Horizontal leadership style</td>
</tr>
<tr>
<td></td>
<td>• Direct role in innovation as ideas generator</td>
</tr>
<tr>
<td><strong>DISADVANTAGES</strong></td>
<td></td>
</tr>
<tr>
<td>Owner/manager</td>
<td>• Poor managerial skills (planning, inadequate delegation, lack of functional expertise or support)</td>
</tr>
<tr>
<td></td>
<td>• Dependency on persons for survival</td>
</tr>
<tr>
<td></td>
<td>• Lack of formalized planning</td>
</tr>
<tr>
<td>Financial:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Difficulties attracting venture capital and bank investments</td>
</tr>
<tr>
<td></td>
<td>• Failure of innovation projects may be financially disastrous</td>
</tr>
<tr>
<td></td>
<td>• High fixed costs for technological investments and start-up</td>
</tr>
<tr>
<td>Labour:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Difficulties attracting skilled personnel</td>
</tr>
<tr>
<td></td>
<td>• Harder to update technological knowledge</td>
</tr>
</tbody>
</table>

Table 2: Differences between innovative capacity of MSMEs and Large companies