

DEVELOPING COUNTRY INDUSTRIALISATION PROGRAMME: INFERENCES FROM STATE-OWNED INDUSTRIAL ESTATE

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ABSTRACT

The paper evaluated the innovation performance of firms and examined the challenges faced in Nigeria's industrial estates. A set of questionnaires was administered to 46 firms located in four small scale industrial estates out of which 41 (89.1%) responded. Data was gathered on innovation activities, networks and obstacles to firms' technological innovation. The empirical evidence suggests that firms engaged more in process innovation which is aimed at producing more with less. In addition, business interactions with suppliers and buyers are the major channels of information for firms' innovation while collaboration between the firms and research institutes was found to be weak. The study also revealed that despite the objectives these estates are set to achieve, firms in the estates are seriously constrained in terms of infrastructure and fund. The paper concluded that in order to increase innovation performance of firms located within the Nigerian industrial estates, there is need for policy intervention by government at restructuring and revitalising these estates for better industrial growth and economic development.

Key words: Technological innovation, Industrial estate, Industrialisation, Developing countries.

INTRODUCTION

One major factor that has continued to differentiate the countries classified as developed, developing and less developed is the way they manage their technological assets. One of such assets is industrial estate. Industrial estate has continued to play a central role in the industrialisation efforts of many nations in the world and more importantly in developing countries. In most cases, it serves as a catalyst for accelerating the pace of industrial growth through the provision of suitable accommodation for its tenants. Industrial estate programme is described as a planned clustering of industrial firms (of same size) consisting of standard factory buildings furnished with necessary modern infrastructural facilities and services for its tenants. Its physical proximity also creates additional value for the tenants (Radosevic and Myrzakhmet, 2009).

Industrial estate programme has been observed to play a significant role in the industrialisation programme of developing countries. For instance, the Indian government in 1955 initiated industrial estate programme, and established its first estate at Hadapsar in Maharashtra. The objective was to encourage and support the creation, expansion and modernisation of small scale industries through the provision of factory accommodation, common service facilities and assistance (DCMSME, 2014). Furthermore, the programme was to be used for regional development through the provision of built-in factory accommodation with the requisite facilities and services in semi-urban, rural and backward areas. Tenants in these estates were provided with various incentives such as easy rent terms, power, water, transport and raw material depots (UNESCO, 1966) to help them take up small-scale manufacturing activities. In addition, services were provided for all stages of establishment and their operations as well as developing linkages and networks within the small scale industries, and also with the large scale industries. These efforts however paid off with more prospective tenants showing interest in joining the estates. India presently has over 700 functional industrial estates established and sponsored by the governments (central and states) and the private organisations. As a result, manufacturing activities and technology development from these estates has been impressive with remarkable contribution to India industrial export growth and employment generation in the manufacturing sector (DCMSME, 2014).

The Nigerian government first implemented an industrial estate programme in 1954, about the same period as in India. The programme has continued to face many challenges in stimulating technological development and innovation activities. Some of the challenges faced by tenants in the Nigerian industrial estates include inadequate space and infrastructural facilities, unstable electric power supply, and non-availability of financial support in form of grant, subsidy and loan from the state and private establishments. Consequently, cases of near neglect, dilapidation as well as total closures characterise many of the allocated units within the estates. In fact, observation showed that industrial estates programme in Nigeria have failed to achieve their set purpose, particularly in facilitating the process of technological learning which is a prerequisite for innovation (Ogbimi, 2007; Alegre and Chiva, 2008).

Technological innovation is central to the sustainable economic development and international competitiveness of any country (Olamade, 2001). This function is performed by the nation's enterprises which remain the real engine of economic growth as well as employment creation (Radas and Bozic, 2009). Also, innovation is generally believed to be important for the small scale industries if they want to remain in business as well as being competitive. Stimulating innovation in small scale manufacturing firms located within the industrial estates is a very crucial policy move for developing economies such as Nigeria. Thus, the objective of our paper is to assess technology innovation of small scale manufacturing firms located within the Nigeria industrial estates.

LITERATURE REVIEW

Innovation and industrial estates

Studies have shown that firms located within clusters are more innovative and grow at a faster rate than firms from the same industry located outside such clusters. Knowledge exchange process from a concentration of economic activity exercised by similar and related firms within a cluster is expected to facilitate knowledge spillovers and stimulate various forms of learning for innovation. Also, having many firms within this structure competing, or cooperating across similar industries,

triggers the processes that generate dynamism, flexibility learning and innovation (Doloreux and Melancon, 2008). Industrial estates are areas that are deliberately created to promote the clustering effect for economic and technological competitiveness in developing countries (Leibovitz, 2004).

Technological Innovation

Innovation has been recognised as a major source of sustainable productivity growth for building competitive advantage beyond the strategies of price war and imitation that sometimes characterise developing nations' economy. It also constitutes a central process of economic development in the industrialised and newly industrialised countries (Oyelaran-Oyeyinka and Sampath, 2009). Innovations generally are an economic phenomenon (Pierre *et al.*, 1992) that follows the introduction of a new idea (invention). It is believed to be occurring in every discipline, and has various definitions depending on the focus of the researcher. Innovation can be defined as the implementation of a new or significantly improved product (goods or services), process, marketing or organisational method in business practices (OECD, 2005). Khalil (2000) argued that innovation represents the important connection between an idea and its exploitation or commercialisation. The scope of the present study is limited to technological innovation which has been described as the link between hardcore scientific and technological activities, and the real economic growth (Egbetokun *et al.*, 2007).

Technological innovation is defined as the process by which firms master and implements the design and production of goods and services that are new to them irrespective of whether they are new to their competitors, their customers or the world (Mytelka, 2000). It is the process through which new technologies are developed and brought into widespread use. It may be an incremental or radical change in nature. We therefore classify technological innovation into two types, namely: product and process innovation. Product innovation can be defined as the introduction into the market of a product whose technological characteristics or intended uses differ significantly from those of previously produced products or an existing product whose performance has been significantly enhanced or upgraded (OECD, 2005). It helps organisations to maintain their position in the market or their relationship with important customers (Wright *et al.*, 2005; Raymond and St-Pierre, 2010). On the other hand, process innovation is defined as the adoption of technologically new or significantly improved production methods (Adegbite and Abereijo, 2006). The way the product is being developed and produced is expected to be new or improved significantly (Egbetokun *et al.*, 2009). It also involves the introduction of new equipment designed either to make new products or to increase the efficiency of an existing production process, thereby reducing costs of production (Adegbite and Abereijo, 2006).

Influencing Factors

The outcome of firms' innovation activities sometimes depends on the volume and utilisation of the resources (internal and external) available to the firm (Oerlemans *et al.*, 2005; Freel, 2005). Similarly, Becheikh *et al.* (2006), while presenting their proposed framework on the characteristics of innovative firms identified some of these internal and external resources as determinants that influence innovation process at firm level.

Internal Factor

The internal factors on one hand are those that include the entrepreneurial orientation and firm level resources (Adegbite, 2011). On the entrepreneurial orientation, Egbetokun *et al.* (2007) observed that the knowledge and skills brought into the organisation by the entrepreneur and the workforce; which they had obtained through their earlier experience plays a significant role in building the firm's absorptive capacity. Furthermore, firms require an adequate stock of technically qualified manpower to absorb new technologies, modify them, create and transfer new technological information. The contributions of the top management team of a firm to the process of innovation cannot be overemphasized. Cumulative years of experience and educational qualifications (Baldwin and Johnson, 1996; Romijn and Albaladejo, 2002; Souitaris, 2002) represent a crucial factor favoring innovation in firms. It is important to note that employing high-level, technically qualified and experienced personnel with diverse backgrounds as well as the provision of adequate training and motivation is also an important determinant of innovation. Employees in this type of category are capable of creating new technologies and absorbing new knowledge from outside (Freel, 2003; Koeller, 1996; Romijn and Albaladejo, 2002; Baldwin and Johnson, 1996; Hoffman *et al.*, 1998).

Other internal factors include firm size, firm age, ownership structure, formal and informal in-house staff training, formal research and development (R&D), informal experimentation on shop floor, and other technological efforts (Egbetokun *et al.*, 2007; Adegbite, 2011). The use of firm size as one of the internal factors influencing firm's innovation process originated from Schumpeter's work. The theory of capitalism, socialism and democracy suggest that innovation activity increases more with firm size. Firm size which is mostly represented by the total employment is expected to have positive correlation with innovation activities (Wignaraja, 2002). On the effect of firm age on innovation, Becheikh *et al.* (2006) observed that with age, a firm is expected to have accumulated the experience and knowledge necessary to innovate through learning-by-doing (Wignaraja, 2002). However, older firms are also expected to have developed procedures and routines that create a resistance to the integration of major external advances, and this represent a barrier to innovation (Freel, 2003; Becheikh *et al.*, 2006). As for the relationship between the firm's ownership structure and innovation, Wignaraja (2002) explained that firms with foreign affiliates are always better placed to acquire technological capabilities (which are prerequisite for innovation). This is because of their ready access to the technologies, skills, and R&D of their parent corporations.

External Factors

The second factors that affect technological innovations are those that are external to the firm. External factors comprise of various interaction activities between an enterprise and other organisations within and outside the industry. It also include networking relations with various actors of its environment; the mode of acquisition of knowledge and technologies; and government and public sector policies. In addition, one might also need to consider this opportunities within the framework of industrial estate which is the focus of this study. Becheikh *et al.* (2006), submits that their entire sample found a significant positive relationship between networking and innovation. It was revealed that the correlation between innovation and the interaction with customers, suppliers, universities, research centers, financial institutions and other actors of firms' environment is positive (Souitaris, 2002). Firm's interaction with the actors in the national or regional innovation system

helps in bridging the gaps in its information, resources and competencies (Romijn and Albaladejo, 2002; Egbetokun et al., 2009; Sobanke, 2012) necessary for innovation. Furthermore, external acquisition of knowledge and technologies in form of equipment purchase, licenses and agreements, attendance of conference and specialised fairs as well as seminars and workshops, and informal exchanges with various actors in firm's environment, are all found to have both significant and positive (Koschatzky et al., 2001; Uzun, 2001) relationship with innovation.

Lastly, government policies that are connected with fostering certain sectors; imports substitution (Lanjouw and Mody, 1996; Oyelaran-Oyeyinka et al., 1996); provision of financial support in form of grants, subsidies or loans (Beugelsdijk and Cornet, 2002; Keizer et al., 2002); and market protection have all been observed to have a significant positive effect on innovation.

METHODOLOGY

The study covered four selected small scale industrial estates. The estates covered are Matori I, Matori II, Yaba and Isolo industrial estates, all located within Lagos state. The majority of the MSMEs operating in Nigeria are located in Lagos State. In fact, the state is purported to host over 2000 manufacturing firms and account for about 60% of the country's industrial investment (Ehikioya, 2012). The Yaba Industrial Estate is the first small scale industrial estate to be established in Nigeria by the British in 1954. Matori I, Matori II and Isolo estates were established by the Lagos State Government and being supervised by the Lagos State Ministry of Commerce and Industry. Prior to the field work, a draft of the questionnaire, adapted from similar studies (NISER, 1997; Abbasi and Hajihoseini, 2009) was reviewed and pre-tested on some purposively selected firms outside the estates. Each questionnaire was addressed to the target firm owner or production manager. Forty one out of forty six questionnaires administered (89.1%) were retrieved and analysed using descriptive and inferential statistics. The questionnaire elicited information on firm year of establishment, size, ownership structure, type of business and technology, educational level, types of innovation, and factors influencing innovation. Education of the entrepreneur and workforce (we limited this to the production manager alone due to sparse data on other employees) was represented by the highest academic qualification obtained (secondary or post-secondary). Training efforts were measured by binary indicators of whether a firm organised a training programme for their staff. Institutional support was indicated by whether a firm received assistance from actors such as universities and government research institutes.

RESULTS AND DISCUSSION

4.1 Types of Industries in the Estates

Table 4.1 shows economic activities in the estates. Using international standard industrial classification (ISIC) code, we classified all manufacturing activities inside the estates into ten (10) categories. Firms in the estates engaged in the manufacturing of food products; beverages; printing and reproduction of recorded media; chemicals and chemical products; rubber and plastic products; furniture; electrical equipment; machinery and equipment; leather and related products; and fabricated metal products. Firms in all the estates engaged more in the manufacturing of beverages (19.5%); printing activities (17.1%); and chemical products (14.6%). Other noticeable firms include those that manufacture food products (9.8%); rubber and plastics products (9.8%); and fabricated metal products (9.8%).

Table 4.1: Industrial distribution of firms in the estates

Industrial classification	Location of estates			
	Matori 1	Matori 2	Isolo	Yaba
Manufacture of food products	1(2.4)	-	1(2.4)	2(4.9)
Manufacture of beverages	5(12.2)	1(2.4)	-	2(4.9)
Printing and reproduction of recorded media	7(17.1)	-	-	-
Manufacture of chemicals and chemical products	2(4.9)	2(4.9)	1(2.4)	1(2.4)
Manufacture of rubber and plastics products	1(2.4)	1(2.4)	-	2(4.9)
Manufacture of furniture	-	-	-	1(2.4)
Manufacture of electrical equipment	2(4.9)	-	1(2.4)	-
Manufacture of machinery and equipment n.e.c.	1(2.4)	-	1(2.4)	1(2.4)
Manufacture of leather and related products	1(2.4)	-	-	-
Manufacture of fabricated metal products, except machinery and equipment	2(4.9)	-	1(2.4)	1(2.4)
Total	22(53.7)	4(9.8)	5(12.2)	10(24.4)

4.2 Firm Years of Establishment and Size

Table 4.2 presents the information on firm years of establishment and firm size measured by number of employees. For the years of establishment, the result revealed that the majority (61%) of the firms in all the estates were recently established, and this falls between year 2000 and the time of this study. While 8 (19.5%) of the firms in the estates were established more than 3 decades ago. Similarly, the majority (70.7%) of these firms are micro scale in nature, while the remaining 29.3% falls under the category of medium scale industries which employ more than ten workers.

Table 4.2: Year of establishment and size of firms in the estate

Years of establishment	Frequency (%)	Firm size	Frequency (%)
<1989	8(19.5)	1-5	13(31.7)
1990-1999	8(19.5)	6-10	16(39.0)
>2000	25(61.0)	11-15	5(12.2)
	-	16 & above	7(17.1)
Total	41(100)		41(100)

4.3 Distribution of Firm Ownership Structure and Market Orientation

On the ownership structure, the majority (92.7%) of the firms in the estates are owned by Nigerians while foreigners only control only 2 (4.9%) of firms in the estates. The result is not surprising as the estates are established to assist the local entrepreneurs among other objectives. However, the interesting part of this result is the data on joint venture. Although, joint venture is also 2.4% of the total ownership structure, this is however important to this study as a source of foreign technologies which can be utilised for improving any available indigenous technologies. Similarly, on the market orientation of firms in the estates, the result shows that about 25 (61%) of them produce for local customers, that is customers within Lagos state where the estates are located. Also, about 24 (58.5%) have their customers outside Lagos state to cover every other state within Nigeria, while only 4 (9.8%) sell their products to the international market. Selling to or producing for international customers can help firms to meet necessary international standards. Many a time, this standard helps manufacturing firms to be more innovative because of the highly competitive nature of an international market.

Table 4.3: Ownership structure and Destination of firms' products

Global strategies	Ownership structure			Market orientation		
	Nigerian	Local	Local	Local	Foreigner	Joint venture
Yes	38(92.7)	25(61.0)	25(61.0)	25(61.0)	2(4.9)	1(2.4)
No	3(7.3)	16(39.0)	16(39.0)	16(39.0)	39(95.1)	40(97.6)
Total	41(100)	41(100)	41(100)	41(100)	41(100)	41(100)

4.4 Educational Qualifications of Management Staff

Table 4.4 is used in presenting the educational qualifications of the entrepreneurs and their managers. The table shows that 34 (82.9%) firm owners and 25 (61%) of their managers have above formal secondary school education (Post-secondary). This is a good result for these manufacturing firms particularly in Nigeria where the literacy level among local industrialists is averagely low when compared with some other developing countries. One might easily conclude that attainment of a formal education is a one of the prerequisites for admission into these estates but beyond this, it is also a major factor for building technology capability necessary for innovation.

Table 4.4: Distribution of management staff educational qualification

Educational attainment	Owner	Manager
Secondary	7(17.1)	16(39.0)
Post-secondary	34(82.9)	25(61.0)
Total	41(100)	41(100)

4.5 Staff Training Programme

Table 4.5 presents the staff training which described whether the firms in the estate send their employee for technical training outside the firm. From this table, the majority (61%) of firms in the estate confirmed to have sent their employee for training outside their firm. Though, about 16 (29%)

are yet to engage in training of their staff outside, it is however possible that this group of firms employ more of on-the-job training to the formal training which is sometimes costly.

Table 4.5: Distribution of firms' trainings

Staff Training	Frequency	Percentage
Yes	25	61.0
No	16	39.0
Total	41	100

4.6 Firms' Innovation Types and Influencing Factors

The number of firms that engaged in innovation in each of the estates shows Matori I has the highest number in product innovation (10) and process innovation (16) see Figure 4.1. On the aggregate, the result shows that firms performed better in process innovation than product innovation. We further ran a correlation analysis to determine the factors influencing firms' innovation in the estates, and this is presented in Table 4.6. The result showed that among the influencing factors, local market ($r=-0.320$; $p<0.05$) and national market ($r=0.326$; $p<0.05$) have significant relationship with product innovation. On the other hand, year of establishment ($r=-0.404$; $p<0.01$), manager's education ($r=0.422$; $p<0.01$), and training ($r=0.314$; $p<0.05$) showed a significant relationship with process innovation.

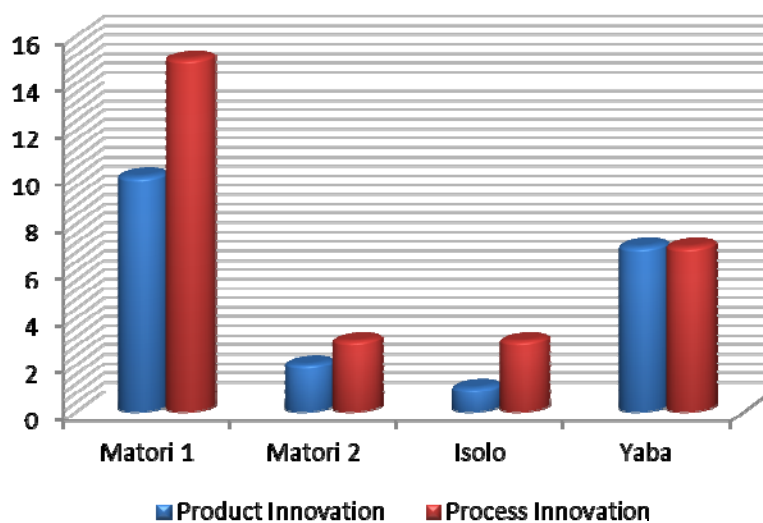


Figure 4.1: Firm Types of Innovation by Estate

Table 4.6: Correlation results of the factors influencing innovations in the estates

	1	2	3	4	5	6	7	8	9	10	11	12
Product Innovation	1.000											
Process Innovation	.560*	1.000										
Year of	-.291	-	1.000									

	1	2	3	4	5	6	7	8	9	10	11	12
Establishment		.404**	0									
Own by Nigerians	-.101	.010	-.218	1.000								
Own by Foreigners	.006	-.089	.176	-.806**	1.000							
Joint Ownership	.162	.108	.123	-.563**	-.036	1.000						
Owner's Education	.054	.109	.110	.121	-.198	.072	1.000					
Manager's Education	.181	.422**	.015	-.033	-.051	.126	.301	1.000				
Local Market	-.320*	-.223	.255	.159	-.051	-.198	.036	.078	1.000			
National Market	.326*	.278	-.377*	-.046	.191	-.188	-.119	.037	-.572**	1.000		
International Market	.008	.047	-.136	-.223	-.074	.481*	-.069	.263	.095	.110	1.000	
Training	.181	.314*	-.104	-.033	-.051	.126	.036	.283	-.128	.240	.263	1.000

Spearman's rho; ** $p < 0.01$; * $p < 0.05$

4.7 Motivation for Firm Innovation

Effort was made to capture some of the motivating factors that could also contribute to innovations reported by firms. Table 4.7 presents the result of these factors as indicated by firms in the estates. Firms were asked to indicate the level of importance of these factors on a likert scale (0, 1, 2), and their means was further calculated to know how important each of these variables is to the firms. The most highly rated of all the factors is satisfying customer's demand (1.8049). This was followed by product range extension (1.4878), and product quality improvement (1.4878). The least of factors is availability of government support (0.8049). Further analysis using correlation (see Table 4.8) showed that process innovation has positive relationship with product range extension ($r=0.419$; $p < 0.01$), improved working conditions ($r=0.457$; $p < 0.01$), challenge of new technology ($r=0.399$; $p < 0.01$) as well as environmental-friendly product or process ($r=0.358$; $p < 0.05$) and avail of government support ($r=0.457$; $p < 0.05$).

Table 4.7: Distribution of firms' motivation for innovation

Motivation	Not Important	Moderately Important	Very Important	Mean
Lower production costs	11 (6.9)	7(7.2)	23(7.3)	1.2927
Replace old products generation	12 (7.5)	11(11.3)	18(5.7)	1.1463
Extend product range	5 (3.1)	11(11.3)	25(7.9)	1.4878

Motivation	Not Important	Moderately Important	Very Important	Mean
Deal with new competitors at home	12 (7.5)	8(8.2)	21(6.6)	1.2195
Deal with new competitors in exports market	19 (11.9)	4(4.1)	18(5.7)	0.9756
Improve product quality	9 (5.6)	3(3.1)	29(9.1)	1.4878
Improve working conditions	9 (5.6)	10(10.3)	22(6.9)	1.3171
Develop more environmental-friendly products/processes	12 (7.5)	5(5.2)	24(7.6)	1.2927
Comply with Nigerian Laws and standards	13 (8.1)	4(4.1)	24(7.6)	1.2683
Availability of government support	22 (13.8)	5(5.2)	14(4.4)	0.8049
Take advantage of new technology	10 (6.3))	10(10.3)	21(6.6)	1.2683
Deal with the challenge of new technology	14 (8.8)	7(7.2)	20(6.3)	1.1463
Satisfy customers demands	3 (1.9)	2(2.1)	36(11.4)	1.8049
Deliberate in-house efforts	9 (5.6)	10(10.3)	22(6.9)	1.3171

4.8 Information on Firms Networking Partners

Table 4.9 shows firms networking activities that influenced their innovation. The most important of these partners is the firms' customers with a mean value of 0.8293. This was closely followed by the firms' suppliers (0.6585) and Trade associations (0.6585) they belong to. On the contrary, the least among the group are the public research (0.1463) and educational institutions (0.1951). This result further shows the level of disconnect between the manufacturing sector and knowledge institutions in Nigeria.

Table 4.8: Correlations results of process innovation motivating factors

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.000														
2	.163	1.000													
3	.114	.398*	1.000												
4	.419**	.170	.398*	1.000											
5	.082	.383*	.361*	.482**	1.000										
6	.093	.408**	.410**	.306	.361*	1.000									
7	.267	.221	.347*	.425**	.425**	.241	1.000								
8	.457**	.441**	.297	.337*	.461**	.246	.518**	1.000							
9	.358*	.442**	.254	.278	.268	.321*	.430**	.747**	1.000						
10	.195	.145	.252	.122	.214	.167	.208	.507**	.592**	1.000					
11	.316*	.479**	.306	.084	.082	.455**	.270	.450**	.589**	.506**	1.000				
12	.240	.272	.250	.208	.433**	.183	.514**	.703**	.659**	.488**	.465**	1.000			
13	.399**	.385*	.270	.236	.319*	.318*	.420**	.731**	.766**	.384*	.535**	.764**	1.000		
14	.082	.135	-.113	.150	.186	.073	.244	.364*	.246	.127	.184	.234	.168	1.000	
15	.301	.386*	.174	.228	.149	.277	.321*	.661**	.538**	.206	.311*	.377*	.557**	.364*	1.000

Spearman's rho; ** $p < 0.01$; * $p < 0.05$

- | | |
|------------------------------------------------|-------------------------------------------|
| 1. Process Innovation | 9. Environmental-Friendly Product/Process |
| 2. Lower Production Costs | 10. Comply with Nigerian Standards |
| 3. Replace Old Products Generation | 11. Avail of Government Support |
| 4. Extend Product Range | 12. Take Advantage of New Technology |
| 5. Deal with New Competitors At Home | 13. Challenge of New Technology |
| 6. Deal with New Competitors in Exports Market | 14. Satisfy Customer's Demands |
| 7. Improve Product Quality | 15. Deliberate In-House Efforts |
| 8. Improve Working Conditions | |

Table 4.9: Distribution of firms networking partners

Networking Partners	Yes	No	Mean
Suppliers of equipment, materials, components or software	27(25.0)	14(10.1)	0.6585
Clients or customer	34(31.5)	7(5.1)	0.8293
Competitors/others enterprises in your sector	20(18.5)	21(15.2)	0.4878
Consultants, commercial labs, or private R&D institutes	13(12.0)	28(20.3)	0.3171
Universities or other higher education institutions	8(7.4)	33(23.9)	0.1951
Public research institutes	6(5.6)	35(25.4)	0.1463
Trade associations (NASME, NASSI)	27(25.0)	14(10.1)	0.6585

4.9 Challenges to Firms' Innovation

Figure 4.2 presents the result of some of the challenges faced by the industrialists in the sample industrial estates. The result shows that 70.7% of responding firms agreed that unstable power supply poses the greatest challenge to their operation within the estate. Some of the firms who can afford it rely on power generating plants with great implications on the running cost of production, while production is put on hold for firms who cannot run production on generating plants, thus affecting total productivity in the affected firms. Similarly, 68.3% of these firms observed that the high interest rate and unrealistic collateral sought by the financial institutions also constituted a challenge. More so, trade related issues have overwhelming implications on the profitability, productivity and survival of firms in the four industrial estates. Issues like piracy and smuggling, unregulated importation of foreign goods and raw materials, inconsistency of government policies on industries and trade, lack of political will to protect local industries from foreign domination, and apathy for locally produced goods need to be addressed for industrial growth and economic prospect of local industries. Of major concern to firms in the industrial estates is stable power supply and access to credit facilities with minimal or zero interest rate.

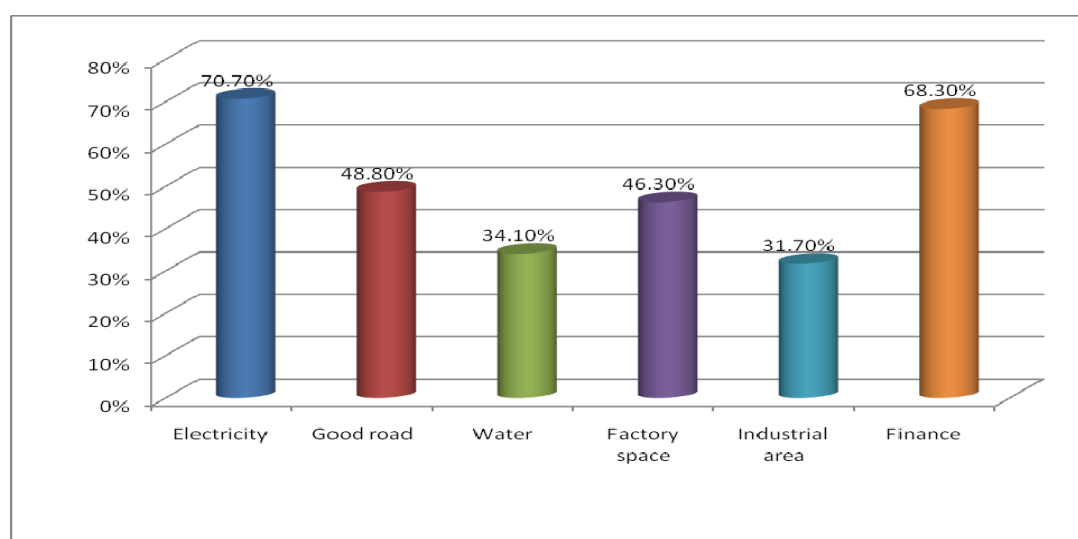


Figure 4.2: Challenges of Firms' Innovation in the Estate

CONCLUSION

This paper set out as a contribution to the current discussion on the developing country industrialisation programme with inferences from state-owned industrial estate. If the propositions outlined above are supported, then the real challenge for organisations is to pay particular emphasis on strengthening those factors contributing to their innovative performance. Also, as governments and corporate bodies brace up for the ever-increasing global challenge, developing countries like Nigeria have no choice but to develop and continuously upgrade their innovations. We understand the fact that most of the firms are small and thus are disproportionately affected by the challenges identified. As a result, they need protection. Also, finance and infrastructure are the most serious problems that require government attention.

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