Road Network and Security: Challenges of Small and Medium-Size Enterprises in Port Harcourt

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Abstract: This paper discusses the challenges of SMEs with regards to the issue of road network and security. Survey data was collected through semi-structured questionnaires administered to 90 SMEs; also, interviews were done with some members of the Federal Road Safety Corps (FRSC) and the Nigeria Police Force (NPF). With the aid of SPSS software, the study used descriptive statistics to present and analyze data. Some challenges identified are bad road conditions such as potholes and security issues such as theft. Based on these challenges, the following suggestion were made: the need for more roads to be constructed and for existing ones to be rehabilitated. There is also the need for security operatives to be properly funded to enable them discharge their duties effectively.

Keywords: SMEs, Road Network, Insecurity, Performance and Business Environment.

I. INTRODUCTION

According to the Lagos Chamber of Commerce and Industry (2019), good road network and security enhance easy accessibility to raw materials and it also breaks the limitation of interstate transaction while sound security aid the confidence of foreign and local investors. Inadequate roads have been identified as one of the factors contributing to the demise and poor performance of SMEs in the country (Igwe, Amaugo, Ogundana, Egere & Anigbo 2018). For example, poor road network lead to increased costs of transporting goods, which in turn, increase the prices of goods. Therefore, the high cost of goods affect demand and consequently reduces SMEs customer patronage. According to Reddy (2007) insecurity has also been identified as one of the major threats to the existence of SMEs in developing countries. This is because insecure environments reduces working hours and also reduces investor confidence. Therefore, if there are reduced working hours, productivity could be affected which could also affect profits adversely. Moreover, when the confidence of investors is reduced it could make them unwilling to invest their resources, thereby, missing out on business opportunities.

SMEs are globally regarded as agents that stimulate economic development because of their significant contributions to areas such as income generation and employment (Iteh, 2015). Eniola and Entebang (2015) are also of the opinion that SMEs are essential to the performance of the nation. The business activities of SMEs are important in various areas such as increase in production output, technology, innovation and the improvement of the standard of living of the populace (Eniola & Entebang, 2015). However, some challenges faced by SMEs include the loss of patronage by customers that cannot access their business premises due to bad roads. In addition, due to bad road conditions, there are delays in transportation and the costs of goods are higher as a result of increased transport costs. Theft and corrupt practices by security operatives have also increased SME costs and delays in their business operations. These challenges are some of the factors that have had a negative impact on SME business performance.

II. REVIEW OF LITERATURE

2.1 Conceptual review

SMEs make up about 90% of all Nigerian institutions, generating over 80% jobs within the region. SMEs also contribute about 48% of national GDP within Nigeria (Jelilov & Onder, 2016). Despite SMEs contributions to the economy, they face challenges that inhibit their growth. These challenges include poor infrastructure and a difficult business regulatory environment. Certain challenges faced by the sector include internal barriers such as lack of finance, poor location, lack of innovation and poor managerial skills (Meyer, Molefe & Jongh, 2018). The internal barriers identified suggest that SMEs have some limitations inherent as a result of some wrong decisions they take or their poor planning skills. However, there are some other factors that threaten the existence of SMEs that are largely beyond their control. Meyer et al. (2018) identifies these factors as external barriers such as economic conditions, corruption and strict laws and regulations.

2.2 Theoretical review: complexity/chaos theory

In support of road network/security having an impact on the performance of SMEs, the study deploys the complexity/chaos theory. The underlying idea “is that all things tend to self-organize into systems” (Kelly & Allison, 1999). A system refers to the collection of various parts working or interacting for a purpose or collective function (Rickles, Hawe & Shiel, 2007). For example, the human body is a system comprising of various components that makes the body to function. A feature of the complexity/chaos theory is Complex Adaptive Systems (CAS). CAS refers to interconnected and interdependent complex systems that contain a mixture of numerous parts or subcomponents. The repeated interaction of the numerous parts of the system...
produces a collective behaviour that also provides a feedback for the behaviour of the individual parts. For instance, a feedback to the individual parts from the system behaviour could be that the firms would want to improve on their efficiency in response to competition or the provision of a good transport system. Also, a negative influence of bad environmental factors would impact performance of firms over time. (Mason, 2007).

2.3 Empirical review

Binswanger, Khandker and Rosenzweig (1993) studied the effect of financial institutions and public infrastructure on investments and agricultural output in India. They used the fixed effects model to explain the variation in public infrastructure within a given time frame. Data was taken from 85 randomly drawn districts in India within a period of about twenty-two years. Results indicated that the government provision of infrastructure helps to boost profitability and encourage more investments. According to Binswanger et al., (1993) the provision of roads and electricity amongst others, were identified as components of infrastructure provided by government. The study revealed that the firms were motivated to provide infrastructures in areas they believed had more favourable climatic conditions to promote agriculture. As a result, farmers within those areas demanded for more infrastructure. In addition, the provision of infrastructure encouraged the emergence of financial institutions in those areas and had the effect of increasing access to capital and reducing long-term borrowing costs. The study noted that one of the direct effects of having good roads was not necessarily the improvement of agricultural investment but rather the creation of marketing opportunities and the reduction of various types of costs associated with business activities. These findings suggest that areas that are assessable by good road networks would encourage more business activities and reduce costs such as transportation and borrowing costs. This in turn would help improve the performance of firms.

Khandker, Bakht and Koolwal (2009) assessed the poverty impact of rural roads in Bangladesh. Their study used an econometric framework to evaluate survey data for various periods, which were obtained from “the Bangladesh Institute of Development Studies”. The survey focused on two road-improvement projects in Bangladesh that were funded by the World Bank. Findings revealed that good roads and infrastructure could help to alleviate poverty and stimulate economic growth. Khandker et al. (2009) noted that road projects could be assessed in various forms such as the length of the road, whether the road is prone to accidents and how much travel times the road is able to save or reduce. However, the benefits of road improvements were also identified, such as reduced transportation costs, reduced costs of inputs and increased productivity. For instance, fertilizer was considered as an agricultural input, based on the findings of the study, the price of fertilizers reduced as a result of the road improvements conducted in the villages under focus. Moreover, results also showed that road improvements were the reason for about a 1% annual reduction in the poverty level of the areas studied. In addition, road improvements also affected other areas such as enhancing the access to schools and health care facilities. Since good roads help to reduce transportation costs and the costs of some goods, therefore, a good road network would go a long way in supporting businesses to convey their products, perform other services and improve on profits due to the advantages of cost reduction.

The World Bank (2020) through various surveys did a report on Nigeria as regards various aspects of poverty alleviation. Based on their findings, infrastructure gaps were identified as one of the constraints in poverty alleviation. The report noted that in the private sector, 20% of the firms consider inadequate infrastructure as the most challenging aspect of doing business in Nigeria. The study also observed that though Nigeria has an extensive road network, that most of the roads are in poor condition and that there are inadequate roads in the rural areas to link people to the markets. The World Bank (2020) believes that there is a need to expand transportation and infrastructure in the urban areas to cater for the increasing population, otherwise, this could reduce the productivity of business activities. The World Bank (2020) argues that one of the characteristics of “chaotic and disorganized urban expansion” is the lack of adequate infrastructure that makes cities prone to being dominated by “vast slums”. Therefore, if the Nigerian government does not take proactive steps to improve infrastructure, then, it could have a negative impact on firms doing business and this in turn would not support their performance.

The Federation of Small Businesses (FSB) (“FSB: Accelerating infrastructure”, 2011), conducted a survey comprising 1,700 SMEs in the United Kingdom, the survey was about the “Voice of Small Business”. Results revealed that within a year, due to issues regarding UK’s poor state of road networks, 50% of the firms said their business costs increased by about £5,000 and another 12% said their increase in costs was between £5,000 and £19,999. FSB notes that these cost increases were significant considering the fact that the average turnover for SMEs, at that time, was £500,000. The FSB posits that issues of congestion and bad roads, impact SMEs in various ways such as, reduced productivity and damaged vehicles. The FSB (Pearcey, 2016) posits that poor road network has a harmful effect on business growth. They noted that in the rural areas of the UK, the main issues the businesses faced were potholes on the roads, road congestion and the cost of fuel. FSB (Pearcey, 2016) advises that investing in infrastructure that improves road network and transportation will support SME business activities. In Nigeria, it is common to see broken down vehicles and their products spilled on the road due to the bad road conditions. Also, many vehicles unable to maneuver the harsh terrains and potholes are involved in accidents that sometimes result to loss of lives and property. These unfortunate incidences result in losses for SMEs that rely on these roads.
Lokshin and Yemtsov (2005) conducted a survey of households in Georgia to determine whether “Rural Infrastructure Rehabilitation” helped the poor in the country. The survey addressed various projects such as road rehabilitation, school rehabilitation and water system rehabilitation. The study lasted for about seven years and covered a total of 174 villages that had benefited from various infrastructure rehabilitation projects. Results revealed that prior to the infrastructural rehabilitation projects, there was a decline in the sale of agricultural products and a general decline in the standard of living among the people of Georgia. The downward trend experienced by the country was attributed to the “economic and political turmoil” and the rapidly deteriorating infrastructure after Georgia gained independence from the then Soviet Union. However, with regards to road rehabilitation, various damaged existing roads were repaved, some roads and bridges were also widened. By 2001, when these projects were completed, noticeable changes were recorded such as the reduction in the time it takes to commute to the district center by 36 minutes. Also, due to road rehabilitation, there was an increase in non-farm related employment and female employment rates. In addition, road rehabilitation was also credited for the increase in the number of SMEs and the reduction of trade by barter practices within the region. Therefore, one can infer that infrastructure is relevant to encourage SME performance.

From the surveys conducted by the World Bank (2020) regarding Nigeria’s growth journey, insecurity was identified as another constraint. The report noted that issues such as Boko Haram insurgence, crime, and violence and herdsmen attacks have had an adverse effect on the economy and the people of Nigeria. In other words, the issue of insecurity in Nigeria is a menace that leads to the destruction of lives and properties. The World Bank (2020) report posits that porous borders, human right violations, unemployment and excessive use of force by security operatives are some of the factors that promote insecurity in Nigeria. Therefore, such an environment that threatens economic development would not encourage the growth of SMEs. An environment that is violent and full of conflict would not be conducive for business because investors would fear for their lives and the survival of their firms. Moreover, such a violent environment could also reduce the purchasing power of people. For instance, the World Bank (2020) notes that one of the effects of the Boko Haram insurgence is that people were displaced from their homes. People that have suffered such terrorist attacks may not be able to patronize businesses, and low patronage does not support business performance. Therefore, the Nigerian government needs to work hard to stop terrorist groups and create a more conducive environment to encourage business activities.

Okonkwo, Ndubuisi & Anagbogu (2015) investigated the implications of insecurity on businesses in Nigeria. Based on the secondary data obtained, findings revealed that insecurity hinders business activities and also discourages local and foreign investment. Okonkwo et al. (2015) also recommends that there should be proper policy formulation and implementation to address issues such as unemployment, corruption and religious conflict, which were identified as some of the root causes of insecurity in Nigeria. Okonkwo et al. (2015) posits that business activities are part of human existence, geared towards making profit through the provision of goods and services. However, insecurity creates fear, anxiety and the lack of safety, which does not support business activities. Okonkwo et al. (2015) also argue that the government has failed in its primary duty of providing security and welfare for its citizenry. Some security challenges identified are armed robbery, kidnapping, hired assassinations and the activities of some religious sects such as Boko Haram that oppose Western education. The study also notes that kidnapping and armed robbery have been quite high in areas such as Rivers State. Therefore, SMEs cannot thrive where there is fear of being attacked or where the safety of lives and properties are not protected.

Aguilar, Archundia & Regalado (2013) did a study on the security issues in Mexico and the impact it had on the business environment. The study was based on the review of various literature and surveys. Their finding revealed that issues such as criminality and other anti-social acts, impact economic growth negatively and discourages investment. Moreover, insecurity also encourages poverty and unemployment. According to Aguilar et al. (2013) people need to be safe from all forms of danger and safe in all acts of their existence. However, due to the misuse of the freedom of will, some people harm others by their violent and abusive acts, thereby making the issue of insecurity a problem that exists everywhere in the world. The study reveals that the cost of insecurity was about 8.9% of Mexico’s GDP in 2009 and rose to about 15% in 2010, which was an estimated amount of $95 billion dollars. In addition, these criminal activities rob the country of about 1.2% potential growth in GDP. Aguilar et al. (2013) also noted that SMEs in Mexico experience reduced profit margins due to criminal activities. These criminal activities could lead to various issues such as the disruption of company operations, reduced productivity, sufferings due to kidnaps and thefts and in some cases, the closure of the business operations. Therefore, government needs to address the root causes of insecurity, for instance, studies revealed that for every percentage point growth in unemployment, there is a corresponding increase of about 6.7% in homicides, a 2.4% rise in robbery and a 3.4% increase in violent crimes (Fowles & Merva as cited in Aguilar et al., 2013). Moreover, government spends quite a lot to combat crime and these moneys could have been channeled for other purposes to improve the welfare of its citizens. Therefore, government should look into their policies to make changes where necessary, to improve employment and reduce insecurity challenges. Moreover, when a country’s business environment is safe, it would help boost investments and provide more job opportunities and help SMEs to thrive.
III. METHODOLOGY
Survey data was collected through semi-structured questionnaires administered to 90 SMEs, in addition interviews were conducted with some members of the Federal Road Safety Corp (FRSC) and the Nigeria Police Force (NPF). With the aid of SPSS software, descriptive statistics (Fisher & Marshall, 2009) was used to present, organize and analyze the data.

Table 1: SME responses regarding road network and security

<table>
<thead>
<tr>
<th>S/n</th>
<th>Road network and Security measures</th>
<th>Percentage Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time spent on the Road network in commuting for business activities - impact on revenue/sales</td>
<td>38.2 43.8 6.7 7.9 3.4</td>
</tr>
<tr>
<td>2</td>
<td>Time spent in getting response to security concerns regarding your company business environment - impact on revenue/sales</td>
<td>34.5 32.1 16.7 11.9 4.8</td>
</tr>
<tr>
<td>3</td>
<td>Time spent on the Road network in commuting for business activities - impact on expenses</td>
<td>36.3 37.5 10 13.8 2.5</td>
</tr>
<tr>
<td>4</td>
<td>Time spent in getting response to security concerns regarding your company business environment - impact on expenses</td>
<td>33.8 36.4 14.3 13 2.6</td>
</tr>
<tr>
<td>5</td>
<td>Cost due to road conditions (e.g. vehicle maintenance or transportation) - impact on revenue/sales</td>
<td>38.6 48.2 6 6 1.2</td>
</tr>
<tr>
<td>6</td>
<td>Cost of security concerning the business environment (e.g. loss of property to theft) - impact on revenue/sales</td>
<td>43.8 38.8 11.3 3.8 2.5</td>
</tr>
<tr>
<td>7</td>
<td>Cost due to road conditions (e.g. vehicle maintenance or transportation) - impact on expenses</td>
<td>39.5 48.1 4.9 7.4</td>
</tr>
<tr>
<td>8</td>
<td>Cost of security concerning the business environment (e.g. loss of property to theft) - impact on expenses</td>
<td>39 45.5 10.4 3.9 1.3</td>
</tr>
<tr>
<td>9</td>
<td>Road network - impact on profit</td>
<td>46.2 34.6 7.7 7.7 3.8</td>
</tr>
<tr>
<td>10</td>
<td>Security - impact on profit</td>
<td>41.8 34.2 12.7 2.5 8.9</td>
</tr>
</tbody>
</table>

Source: Author’s Field Survey (2020) - SPSS version 25 output

38.2% of SMEs believe that the time spent on the road network in commuting for business activities, has a very high impact on their revenue/sales. 43.2% say the impact is high, 6.7% are neutral, 7.9% say the impact is low, while 3.4% say the impact on their revenue/sales is very low.

Based on the time spent in getting response to security concerns regarding their company business environment, 34.5% of the SMEs said that this had a very high effect on their revenue/sales. 32.1% said the impact was high, 16.7% of the SMEs were neutral, 11.9% said it had a low impact and 4.8% said the impact was very low.

36.3% of SMEs believe that the time spent on the road network in commuting for business activities, has a very high impact on their expenses. 37.5% say the impact is high, 10% are neutral, 13.8% say the impact is low, while 2.5% say the impact on their expenses is very low.

Based on the time spent in getting response to security concerns regarding their company business environment, 33.8% of the SMEs said that this had a very high effect on their expenses. 36.4% said the impact was high, 14.3% of the SMEs were neutral, 13% said it had a low impact and 2.6% said the timing impact was very low.

38.6% of SMEs believe that the cost due to road conditions (for example. vehicle maintenance or transportation), has a very high impact on their revenue/sales. 48.2% say the impact is high, 6% are neutral, 6% say the impact is low, while 1.2% say the impact on their revenue/sales is very low.

Based on the cost of security concerning the business environment (for example, loss of property to theft), 43.8% of the SMEs said that this had a very high effect on their revenue/sales. 38.8% said the impact was high, 11.3% of the SMEs were neutral, 3.8% said it had a low impact and 2.5% said the impact was very low.

39.5% of SMEs believe that the cost due to road conditions (for example. vehicle maintenance or transportation), has a very high impact on their expenses. 48.1% say the impact is high, 4.9% are neutral and 7.4% say the impact is low.

Based on the cost of security concerning the business environment (for example, loss of property to theft), 39% of the SMEs said that this had a very high effect on their expenses. 45.5% said the impact was high, 10.4% of the SMEs were neutral, 3.9% said it had a low impact and 1.3% said the impact was very low.

46.2% of SMEs believe that the road network indicator has a very high impact on their profit. 34.6% say the impact is high, 7.7% are neutral, 7.7 % say it is low and 3.8% say the impact is very low.

The SMEs that were involved in this study included various forms of businesses such as sole proprietorship, partnerships and limited liability firms. The participants covered a variety of economic activities, such as education, construction, agriculture, logistics, financial services, entertainment and information technology.
Based on the security indicator, 41.8% of the SMEs said that this had a very high effect on their profit. 34.2% said the impact was high. 12.7% of the SMEs were neutral. 2.5% said it had a low impact and 8.9% said the impact was very low.

**Challenges of SMEs**

Most SMEs say that due to bad roads and poor road network, a lot of time is wasted in trying to deliver their products to their customers, thereby impacting their sales/revenue negatively. Also, some SMEs say they have lost customers due to the deplorable state of the road because some of the customers resorted to alternative places or businesses rather than commuting through the bad roads to patronize them.

One of the SMEs involved in construction and logistics commented that poor road condition impacted their hauling operations significantly. Days are lost on the roads in transiting from one destination to another, reducing effectively the number of trips made by each trucking unit. This subsequently leads to a reduction on profit (since fewer trips translates to smaller revenue). Other SMEs noted that the poor road condition also leads to delays in project execution and delays in getting to their business premises.

With regards, to costs, most SMEs say that due to bad road conditions such as potholes, their vehicles break down frequently and as a result they spend more on vehicle repairs and maintenance. According to some SMEs, the bad road also poses the risk of losing the goods and increased transportation costs, which in turn affects profits negatively.

Apart from bad roads, an SME said that the ongoing road construction in some parts of Port Harcourt, though welcomed development, caused some congestion, which, contributed to the high cost of transporting goods to the business premises.

A representative of the Federal Road Safety Corp (FRSC) said that the bad state of the roads reduces labour mobility, slows down the ability to get products to markets. It increases the supply costs of products, increases maintenance costs of vehicles that breakdown and sometimes, there are losses of goods especially when a truck falls over and spills its contents. All these have the effect of reducing profits and in some instances, the loss of lives.

Another representative of FRSC noted that the roads get bad easily because of poor drainage systems and the indiscriminate disposal of refuse in drainages, which lead to floods that damages the roads. Currently, in Port Harcourt, the government is working on improving the road network through various ongoing projects such as the construction of the GRA Flyover, dualization of certain roads and various pothole repairs (Chinwo, 2020). This initiative by the government is laudable because good road network and good state of the roads is needed to ease the distribution of goods and services, encourage customer patronage and reduce the rate of vehicle breakdowns.

An SME participant noted that security operatives and other numerous task force personnel often stop their vehicle on their way to supplying their customers. They ask for numerous, sometimes impossible or unlawful documentation or requirements. When these are not provided, their vehicle is impounded and time and money are wasted in retrieving the vehicle. According to Aidis (2005), one of the institutional barriers to SMEs operations is the informal rule such as unofficial acceptable governmental culture, for example, the implementation of regulations. Therefore, when government officials implement rules recklessly or harshly, it affects SMEs productivity and such corrupt practices need to be discouraged.

Some SMEs believe that adequate security would address issues of theft. According to another SME, they experience regular attacks from thieves, and this threatens the smooth operations of their business. Most of the SMEs also note that the cost of security is high. For example, an SME said that most of their premises have paid security outfits as well as personnel of the Nigeria Police Force. These security personnel come at a huge cost to their business; therefore, there is reduction in their profit. Another SME noted that if they were to reduce the investment in security, most of their guests, in the hotel, would not feel comfortable staying around.

A member of the Nigeria Police Force (NPF) was interviewed and he said that there are kidnapping concerns, theft, breaking and entry. He said that his institution has some challenges, for instance, if someone is kidnapped, the police sometimes find it difficult to access the area due to bad road conditions. Sometimes information gets to the police quite late, some SMEs are not willing or not quick enough to volunteer information to security personnel to enable them respond promptly. He also noted that due to poor funding, many police vehicles are in a bad state and cannot move, thereby resulting in delay in responding to SME security concerns. In terms of cost of security, the institutional representative said that some SMEs require the special duties of the security personnel to help secure their business environment. The cost associated with this service, if requested, is expensive for SMEs. However, the general security of the area is funded by the government and therefore is at no cost to SMEs.

In another recent development, the federal government approved thirteen billion naira for community policing (Ailemen, 2020). The funding is geared towards addressing insecurities at the grass root level. Hopefully, if security operations improve, it would help to protect SME businesses from theft and other related issues so they can have a favourable environment to operate in.

**V. SUGGESTIONS**

The concerned institutions should put punitive measures in place to discourage the indiscriminate disposal of refuse on the roads. For example, those who throw trash out of car windows or dispose refuse on the roads should be asked to...
pay fines. The people need to be educated about the dangers of disposing refuse carelessly so that the city can be neat and healthy. More attention should also be given to proper waste management in the city, gutters need to be unlogged and more drains provided to address issues of floods that deteriorate the roads. Potholes need to be fixed timely to avoid it getting worse. Though some roads are currently being rehabilitated, there is still the need for more roads in Port Harcourt and many more roads need to be rehabilitated.

According to an interviewed institutional representative from the Federal Road Safety Corp (FRSC), any business worth doing is worth being protected. Therefore, the need to safeguard lives and property cannot be overemphasized. Security operatives need to be properly funded by the government to enable them discharge their duties effectively. Security operatives also need to be re-trained to respect citizens’ rights and not take actions against them indiscriminately.

To reduce crime, the government could consider creating more programs that could engage youths productively such as encouraging them to farm or to acquire other useful skills. Government needs to embark on more effective public enlightenment so that people can be aware of the schemes/programs they have put in place for public benefit. Government also needs to help in minimizing or eradicating corruption by inspiring good leadership and good followership. The initiative of community policing should be closely monitored and documented to evaluate performance so that areas that need further improvement can be worked on.

REFERENCES


