
Effects of Road Traffic Congestion on Firms' Performance in Apapa Central Business District, Lagos State, Nigeria

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Abstract: This study investigated the effect of road traffic congestion on firms' performance in Apapa Central Business District (CBD), Lagos, Nigeria. The objective of the study was to examine the effect of road traffic congestion in the business operating environment on firms' performance. Survey research design was used to gather data through primary and secondary sources. Three hundred and sixty-eight (368) respondents participated in the study through the filling (administration) of questionnaire. The data collected were analyzed using frequency table, mean rating, standard deviation and t-test. The results showed that road traffic congestion has negative effect on firms' performance in Apapa Central Business District. This paper concluded that firms performance in the CBD have been negatively affected by road traffic congestion. It was recommended that firms can actually move to a more comfortable zone to reduce stakeholders such as customers' and employees' stress of entry and exit in that location and increase business owners' chances of expanding their businesses.

Keywords: Central Business District, Firm Performance, Road Traffic Congestion, Transportation.

1. Introduction

Gaining free entry and exit from Apapa business district, Lagos is increasingly becoming worrisome to customers, employees, suppliers, employers and other road users as the growth of business activities continues without proportionate infrastructural growth to accommodate the stakeholders. Apapa Central Business District (CBD) is a commercial and geographic part of Lagos State which is heavily concentrated with retail and office buildings. Due to proximity to the seaport, unidirectional movement of people, vehicular and goods are major features of the area. Aside the unidirectional movement which contributes to the frequent road traffic congestion in the area, the poor state of the roads and indiscipline on the part of road users are other factors responsible for road traffic congestion. The above situation makes the area worrisome and brings untold hardship to business stakeholders in the area such as employees', suppliers and customers who spend hours in the road traffic to access the CBD every day.

This untold hardship comes with many effects on individuals and firms performance in the CBD. Firms have not been able to attain desired level of their performance target due to the frequent challenges of road traffic congestion confronting firms' stakeholders. This development negates the idea behind the creation of a Central Business District (CBD) which is to enhance business performance through the support firms provide for one another in the locality. Business location has been argued to be imperative in determining the prosperity of any firm because this factor can make or mar firm performance. A CBD environment unarguably can promote the performance of firms within the locality if well managed. However, the present unpalatable experiences of the stakeholders in Apapa business district contradict this belief and expectations. Although Apapa business district in the yore days used to be a business location desired by all stakeholders for business transactions and other associated benefits, presently it is a nightmare to all and sundry except for the hoodlums. Taylor (2002) argued that road traffic congestion is an evidence of social and economic vitality of firms. However, reverse is the experience in Apapa CBD as it causes hiccups to firms' performance. The growth of population and business activities without proportionate infrastructure, neglect of the roads and undisciplined acts of road users are considered among the top factors responsible for road traffic congestion in the area. All these make issues difficult for firms and their stakeholders in this business environment which in turn affect firms' performance.

Although studies have been carried out on the effect of environment on firm performance, however none made reference to Apapa central business district especially on the effect of road traffic congestion on firms' performance. Vesna (2002) established that a conducive business environment has positive effects on firms' performance. With cognizance of this reality, many firms have either moved to other locations' within the country of domiciliation while others have moved outside the shore of their initial country of

operations in order to enjoy a friendlier business operating environment. Business relocation has been considered as an option for survival in the face of the harsh operating business environment experienced in Apapa CBD by some of these firms, in order to sustain business performance. A lot of other factors have been attributed to this push or pull factors, but this study discusses road traffic congestion as a push factor and establishes that road traffic congestion exacts terrible drawbacks to businesses around Apapa Central Business District.

Instances of increase in the number of trucks and commercial vehicles which move very slowly, with their indiscriminate attitude, poor state of the roads to in-disciplined human activities on the roads, the ongoing road repair, absence of parking lots, etc are some of the factors that cause road traffic in the CBD. This development consumes man work hours, diminishes employee's morale, delays production, delays transactions and reduces firms' productivity and performance. For instance, Mile two and Tincan axis access to Apapa is worse off, the activities of container truck and fuel tanker drivers who have taken over the road and converted it to a park, stretches from Tincan Island port to unimaginable ends of the road of Apapa Wharf. Two lanes of the road are permanently occupied by stationary trucks waiting to load petroleum products. This challenge has no doubt attracted authorities' attention; however their effort has not really provided any succor to the road users. Lagos State government as an authority in 2012 proposed the need to regenerate the area with a whopping sum of #12billion attributing the decay to the neglect of the area by the Federal Government of Nigeria (Lagos Indicator On-Line, 2012; PM News, 2012), but firms are yet to see any implementation of the proposal as the horrible development worsens. It is against this background that this study examines the effects of road traffic on firms' performance in Apapa CBD.

1.1 Objectives of the Study

The main objective of this study is to examine the effects of road traffic congestion on firms' performance in Apapa Central Business District of Lagos State. This main objective was pursued through the following specific objectives:

- i. To identify key issues causing difficulty in the movement of people and goods in the business district
- ii. To examine the relationship between road traffic congestion and business performance
- iii. To determine the extent to which transportation affects business performance
- iv. To identify alternative means of road transportation for the CBD

1.2 Statement of Hypotheses

The following hypotheses will be tested in the course of the study:

Ho₁: There is no significant relationship between harsh business environments and firms' performance

Ho₂: There is no significant relationship between road traffic congestion and firm performance

2. Literature Review

Environment can be defined as the surroundings, especially the activities going on in the organization and its surroundings which affect the growth, development and existence of a living being or a business organization. Oginni (2012) described an operating environment as 'the totality of the factors that affect, influence or determine the performance of a business'. It is a set of conditions and forces which surround and have direct or indirect influence on the organization. An organization's survival is dependent upon a series of exchange and the continued interaction with the environment which gives rise to a number of broader responsibilities for the society in general. Thus, the environment can create opportunities, threats and problems for firms depending on its activities which are not stable. The dynamic nature of an operating environment would at times make it friendly and at another time harsh or turbulent (Akanji, 2003). According to Azhar (2008), the environment determines what is possible for the organization to achieve. In his study, Vesna (2002) reported that 97.5% of sampled enterprises agreed on the increasing importance of the influence of the environment in business. Business environment therefore determines the possible outcome of firms.

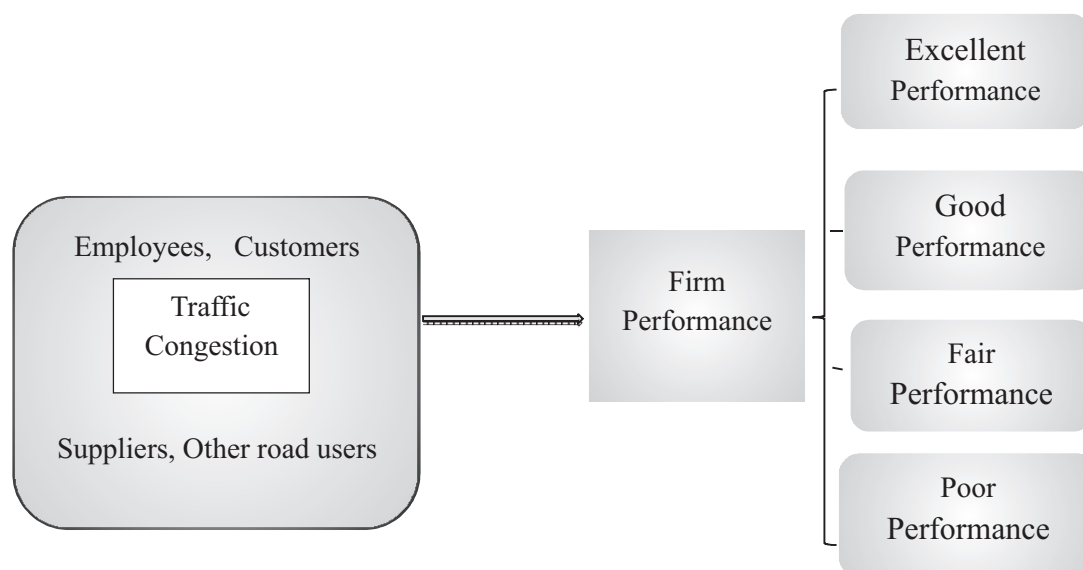
According to Golden (2012), business outcomes may take different forms but performance is a grand measure of how well a firm is doing irrespective of size and type. Performance generally refers to the actual output or result of a firm, as measured against its intended outputs (or goals and objectives). Venkatraman and Ramanujam (1986) describe performance within firm *performance in terms of sales, growth and profitability*. The performance of a firm is related to its capacity to deliver basic goods and services. While commenting on organizational performance, Carton (2004) remarked on what makes 'successful performance' from the stakeholders' perspective. Each stakeholder of an organization will have a different view of what performance is. From the customers' perspective, it relates to how easily goods are received while suppliers believe in how goods get to the firm in a timely manner.

To achieve any of the above view of stakeholders on performance, activities must flow without hindrance. Such activities involve people (employees, customers, suppliers, etc.), materials (raw materials, work in progress, etc.), equipment, tools, etc. At times, a number of factors distort the free flow of business activities in the larger business operating environment. One of those instances is the road traffic congestion. Road traffic congestion is a condition which is characterized by slower speeds, longer trip time, and increased queuing in an environment. It occurs when a volume of traffic split generates demand for space greater than the available road capacity. There are a number of specific circumstances which cause or aggravate congestion; most of them reduce the capacity of a road at a given point or over a certain length, or increase the number of vehicles required for a given number of people or goods. The most common example is the physical use of roads by vehicles. When traffic demand is great enough that the interaction between vehicles slows the speed of traffic, congestion is incurred.

Road Traffic congestion consumes hours and wastes people's time, delays employees, customers, suppliers and management from meeting up with appointments. In a study carried out by Golden (2012), working hours were associated with firms' performance and it was discovered that time wastage reduces performance. In the case of employees, when hours are wasted in traffic it will reduce the available hours to work for the organization, thereby reducing their productivity and invariably firm performance.

2.1 Theoretical Bases for the Study

To establish the effect of business environment on firms' performance, System Theory and Stakeholders Theory were explored. The system theory explains that a system is made up of parts that are interrelated and interdependent and arranged in a manner that makes it a unified whole (Von, 1972). Therefore, firms are system because they are made up of parts. One of the basic assumptions of systems theory is that business firms as entities have parts which must relate together to achieve the essence of their existence. Thus, a business firm is made up of stakeholders. The 'New' stakeholders' model opine that the best 'firms' are the ones that provide a high sense of commitment to its customers, suppliers and employees (Blair, 1995). Stakeholder theory of Donaldson & Preston (1995) provides theoretical explanation to the effect of road traffic congestion on firm performance. With the existence of different stakeholders involved in firms, their ability to contribute and connect the firm at one time or the other is germane to the performance of the firm. Donaldson & Preston (1995) state that every stakeholder has reasons to relate with the firm while any hindrance to the relationship whether artificial or natural will negatively affect the firm's performance. Therefore, to meet up with a desired level of performance all hindrances must be properly managed. Conceptual model 1 presented below described how road traffic congestion in business operating environment can affect stakeholders (employees, customers, suppliers, and other road users) of firms who interact with firms which will subsequently determine the possible firm performance outcome such as excellent performance, good performance, fair performance or poor performance. For instance, it is assumed that easy entry and exit of customers to firm location can increase patronage of firm and if otherwise can reduce patronage; each possibility determines firm performance outcome. By this approach, a firm's performance is anchored on the comfortability of these stakeholders in relating with the firm. When the stakeholders easily gain entry and exit into the operating central business district, it enhances their commitment to the firm and increases the firm's sales rate and profitability which are imperative for firm excellent or good performance.



Business Operating Environment

Figure 1: Conceptual Model

Source: Authors Schematic Model

3. Methodology

3.1. Study Approach

The choice of survey method as the research design was necessitated by the nature of the study. According to Kent (2007), this research design involves a systematic data collection and presentation of data to give an explanation to a particular phenomenon. The survey method is found useful to present facts concerning the relationship between road traffic congestion and firms' performance. This research gathered information from the stakeholders of the selected firms with the aid of questionnaire in order to know the extent to which road traffic congestion affects firms' performance.

3.2 Population and Sample of the Study

All the firms located within Apapa CBD constitute the population of the study. However, twenty-four (24) firms included in this study were picked from different sectors of the economy all located in Apapa CBD with 20 - 150 employees. This was done to ensure adequate representation of the firms in Apapa CBD since it was difficult to cover all the firms in the CBD because of time and finance constraint. Also, the respondent's included in the study were owner/management of the firms, workers, customers and suppliers of these selected firms because of the information required from the survey.

The questionnaire items/filters presented in this paper, were part of the larger questionnaire sent out to the firms in the CBD. The questionnaire was extensive, although only a part of the collected empirical data has been included in the analysis done in this paper. These questions were four statements germane to assessing how the respondents agree or disagree to the statements relating to road traffic congestion in Apapa business operating environment on firm performance:

1. The difficulty in the movement of people and goods in the business district
2. The level of relationship between traffic congestion and business performance
3. The extent to which transportation affects firm performance
4. The alternative means of reducing the effect of road congestion on business performance

Data collection itself was conducted between May 2014 and November 2015. Questionnaires were

distributed to each firm in different envelopes with the name of each firm. The data collected were analyzed using frequency table, mean rating, standard deviation and t-test. In order to determine the acceptance or rejection level of the selected items on the questionnaire, the following decisions were made: If mean response was up to 2.50 and above it was considered agreed while if mean response was below 2.50 it was considered disagreed.

For hypothesis testing, t-test was used at 0.05, level of significance. The decision was if the calculated t-value was less than the table value, null hypothesis was rejected and where the calculated t-value was greater than the table value, null was accepted

4. Results and Discussion

4.1 Response Rate

Table 1 show that twenty-four firms were involved in the survey. The firms represented different sectors ranging from manufacturing, wholesale and retail trade, hotel and restaurants, building and construction, financial intermediaries and communication.

Table 1: Population of Selected Firms

S/N	¹ Selected Firms (No actual name shown)	Sectors	Firms
1	A	Manufacturing	4
2	B	Wholesale & Retail Trade	4
3	C	Hotel and Restaurants	4
4	D	Building and Construction	4
5	E	Financial Intermediaries	4
6	F	Communication	4
Total			24

¹Pseudonym to protect the identity of the Selected Firms

4.2 Characteristics of Respondents

Table 2 shows that the study involved twenty-four (24) business owners representing 6.5%, one hundred and forty-four (144) employees representing 39%, one hundred and four (104) customers representing 29%, and ninety-six (96) suppliers of the firm representing 26%. This facilitated valid responses as relevant information was provided by them based on their knowledge about the firm and their goods and services.

Table 2: Frequency of Respondents

Stakeholders	Frequency	Percentage
Business Owners	24	6.5%
Employees	144	39%
Customers	104	29%
Suppliers	96	26%
Total	368	100

Source: Field Work (2015).

4.3 Test of Hypotheses

Table 4 shows that t calculated 1.38 is less than t value 1.96 (t.cal 1.38 < t. table 1.96), thus the null hypothesis is rejected which means there is significant relationship between harsh business environment and firm performance. This means that harsh business environment will affect firm's performance negatively.

Table 4: Test of Hypothesis 1

***H₀*: There is no significant relationship between harsh business environment and firm performance**

	Mean	Standard Deviation	D.F	t.cal	t. table	Remarks
Harsh business environment	2.83	1.04				
Firm performance	2.61	1.08	368	1.38	1.96	NS

*NS = Not Significant

Table 5 shows that t calculated 1.72 is less than t value 1.96 (t.cal 1.72 < t. table 1.96), thus the null hypothesis is rejected which means there is significant relationship between traffic congestion and firm performance. This implies that road traffic congestion affects firms' performance negatively. This finding is contrary to the position of Taylor (2002) who admitted that road traffic congestion is an evidence of social and economic vitality of firms.

Table 5: Test of Hypothesis 2

***H₀*: There is no significant relationship between road traffic congestion and firm performance**

	Mean	Standard Deviation	D.F	t.cal	t. table	Remarks
Road traffic congestion	2.81	1.13				
Firm performance	2.61	1.09	368	1.72	1.96	NS

*NS = Not Significant

4.4 Major Findings

Table 3 gave an insight into the selected items on the questionnaire for analysis. Item 1 shows that an average of 2.56 stakeholders agreed that they spent unreasonable hours to get to their different destinations each time they visit Apapa Central Business District. This is uneconomical, discouraging and unproductive. It apparently reduces the chances of firms making profit and reducing firm performance. The second selected item revealed that most of the stakeholders do not enjoy transacting business at Apapa central business district. The feedback showed a mean of 1.91, which is in disagreement with whether they enjoy transacting business at Apapa central business district. Item three on the selected items sought to know whether the transportation system was difficult in the CBD. The feedback agreed with this. This indicates that the transportation system is a major challenge in the CBD.

The survey further reveals that the area is harsh for business activities. This was evident in the analysis carried out on the feedback from the administered questionnaire with an average of 2.54 subscribing to the fact that Apapa Central Business District is a harsh business environment due to frequent traffic congestion in the area. Also, the feedback debunked whether the area is economical and stress-free for the stakeholders. Mean of 2.13 which represents "disagree" points to the fact that the area is uneconomical and stressful for stakeholders. The feedback also ascertained the absence of alternative means of transportation other than road to the CBD. Mean of 2.98 representing "agreed" to the fact that there is no alternative means of transportation to Apapa CBD.

On business relocation, feedback showed an average of 2.89 representing agreed. This indicates that most of the stakeholders would not mind if the businesses they relate with relocate to a more comfortable zone for their business activities.

Table 3: Response to Selected items on the Questionnaire

S/N	Filters	Mean	Remark
1	I spend unreasonable hours to get to my destination each time I visit Apapa CBD	2.56	Agreed
2	I enjoy transacting business at Apapa central business district	1.91	Disagreed
3	Difficult transportation system in the CBD	2.83	Agreed
4	Apapa Central Business District is a harsh business environment due to frequent road traffic congestion in the area	2.54	Agreed
5	It is economical and stress free relating with firms in Apapa CBD	2.13	Disagreed
6	There is no alternative means of transportation to Apapa CBD	2.98	Agreed
7	Would you prefer another location if the chance is given to do your business or work	2.98	Agreed

Source: Generated by the Authors

5. Conclusion and Recommendations

5.1 Conclusion

The findings from the study confirmed the relationship between road traffic congestion in the operating business environment and firms' performance. This finding contradicts the position of Taylor (2002) which admitted that traffic congestion is an evidence of social and economic vitality of firms. It was concluded that road traffic congestion has reduced the sales rate and profitability of the firms in the CBD and that most of the stakeholders would not mind business relocation. It should be noted that this might not be the case in some other CBDs where road network are well designed and road users are disciplined.

5.2 Recommendations

The following recommendations were put forward:

1. There is need for Apapa CBD road network system redesign.
2. Road users attitudinal change campaign should be embarked upon immediately.
3. People should endeavor to use public transport or small-size vehicles and create parking lots for vehicles.
4. Alternative means of road transportation should be created for the CBD
5. Any business that cannot cope can relocate to a comfort zone in the face of difficulty in gaining entry or exit. This is more so where the raw materials are not tied to that particular environment.

5.3 Suggestions for Further Studies

This study covered twenty-four (24) firms in Apapa CBD to form the basis of the findings and conclusion. In future studies, effort should be made to cover more firms in the CBD. This will provide a wider coverage and offer holistic perspective on the issue examined in the study. Also, a further study can be carried out in other CBD in Lagos or other States in Nigeria to give room for comparative analysis.

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