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CAN THE USE OF GSM INDUCE BUSINESS ACTIVITIES IN NIGERIA? EVIDENCE FROM P.Z (CUSSONS) NIGERIA PLC.

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Abstract

This research work examined the relationship between Global System for Mobile Communication (GSM) usage and Business Activities in Nigeria. The study was conducted in Lagos cosmopolitan and Ibadan city. The sample size of the study was 200. A pilot study through test-re-test method was also carried out to test the reliability of the instruments with Pearson's product moment correlation coefficient with the following result 0.89 i.e. 89% for trading activities, 0.76 i.e. 76% for Transportation Barriers, while 0.93 i.e. 93% movement of goods and services. The results revealed that there is a positive and significant relationship between the use of GSM and trading activities in Nigeria, the use of GSM does not constitute transportation barriers to business activities in Nigeria and that there is a positive and significant relationship GSM usage and movement of goods and services in Nigeria. Recommendations were made to solve the problems identified.

Key Words: *GSM, Transportation, Trading Activities and Tele communication.*

1. Introduction

All economic activities including commerce, mineral resources extraction, manufacturing, provision of services and a lost of others do face a number of constraints all over the world. One of such challenges/problems usually encountered almost by all developing nations economies is communication and this has always be an impediment to fast and rapid translation of economic growth of such economies to economic development. In Nigeria it has been a big impediment to the rapid growth of business activities as a result of its inadequate provision.

In addition, it is a known and acceptable fact that information dissemination, communication and mobile telephony have made the world fast becoming a global village, therefore a mobile phones has become indispensable. The use of various types of it have fast spread to the remotest parts of the world. Reportedly by 2015 more than half of the world habitants are expected to be using mobile phones/world telecommunication/ICT development report (2010). What is evident is that Global System for Mobile Communication (GSM) has been playing a significant and stimulating role to most nations economic development in the last few decades (Paul et al, 2010).

Nigeria at the attainment of its independence in 1960 had only 18,724 phone lines for use which translated into a tele-density of about 0.5 telephone line per 1000 people. This was found to e grossly inadequate when compared with what was obtainable in developed economies. In 1992, the federal government of Nigeria established the Nigeria communications commission (NCC) by Decree75 to regulate the activities of telecommunication services in the country partly to open up the telecommunications sector and attract private investors and generally to boost business activities in the economy. The setting up of the commission led to the liberalization of telecommunication sector which allows private sector participation leading to the licensing of global system of mobile communication (GSM) operation in 2001.

Transportation is very vital to both rural and urban life because it is an absolutely necessary means to an end. With the provision a good transportation system, people can caring out diverge range of activities that made up daily life (Filani and Osayinmese 1979, Fillani 1991, 1993).

For the fact that cities consist of spatially separated; highly specialized land uses such as food stores, hardware story, banks, drug stores, hospitals, libraries, schools, post offices and so on, people most travel if they want to obtain necessary goods and services. But evidence in recent times had proved that a lot of transactions within and outside the boarders of a nation can be carried out without embarking on any form of journeys. With the increased use of ICT in home, at work, educational establishment, commercial/business organizations, the volume of business activities had increased tremendously.

1.1 Statement of the Problem

It is a fact that computers and mobile telephones have revolutionized communication and by extension interpersonal relationship, hence influencing intimacy and the closeness that exist between people. Interaction can help people master the world and find connectedness which will in term promote business activities between them. Nevertheless it has been found that with the provision of a wide range of telecoms services or global system mobile operators, their services could not reach all rural and urban cities in Nigeria, thus leading to a probably reduction in the volume of business transactions taking place in the economy.

However, these challenges highlighted above need to be probed into in order to profound provide solutions to the following.

i. Estimate the volume of business activities before the invention of ICT

ii. Ascertain the current volume of business activities since the inception of the use of GSM.
iii. Bring out the effect of the use of GSM on transportation and transactions costs.

1.2 Objective of the Study

The Objective of this research work is to bring out, the usefulness of GSM in promoting business activities in the manufacturing sector of the economy.

1.3 Research Hypotheses

The following Research Hypotheses were formulated based on the statement of the problem and the objective of the study.

$H_0$1: There is no significant relationship between the use of GSM and trading activities in Nigeria.
$H_0$2: The Use of GSM does not constitute transportation barriers to business activities in Nigeria.
$H_0$3: There is no significant relationship between GSM usage and movements of goods and services from one place to another in Nigeria.

2. Conceptual and Theoretical Framework

2.1 The Concept of Telecommunication Development

The development of telecommunication in the world began in the 1830s. The first commercial electrical telegraphy was constructed by Sir Charles Wheatstone and Sir William Fothergill (Ajayi et al 2008) and they both saw their device as improvement to the existing electromagnetic telegraphy (international telecom union ITU). In addition Samuel Morse equally independently developed another version of electrical telegraphy but it did not work. However, Alhaji developed his own version of the technology which was successfully demonstrated in 1938. A host of other inventors like Alexander Bell, worked on his own invention in 1878 and 1879 both in Haven and London (ITU, 1999) in the early 1980s analogue mobile telephony grew rapidly and operators found it increasing difficult to interconnect the various networks in Europe but it was later rectified and standardized in another period of seven years. In 1990, there were 11 million subscribers worldwide but the introduction of digital services in the 1990s combine with competitive service provision and a shift to prepaid billing spurred rapid growth in demand.

Nigeria has not been left out of the race for rapid development of telecommunication although the journey to success in the milieu has been long rough and tasken. According to Adegboyega (2008) the first cable connection was established between Lagos and London in 1886. In the later years, a slow but steady process of development followed which led to the gradual formation of a national telecommunication networks (Ajayi et al, 2008).

The first commercial trunk telephone services was established to link Itu and calabar in 1923 as a result of European mercantile activities gaining foothold in the country. Between 1946 and 1952 a three channel line carrier system was commissioned between Lagos and Ibadan and later extended to Oshogbo, Kano. Kaduna, Benin and Enugu thus connecting the colonial office in Nigeria (Adeogboyega 2008, Ajay et al 2008).

Furthermore, the years 1992 to 1999 were tagged as the partial liberalization era, when government embarked on market oriented, partially liberalizing the Nigeria telecommunication sector via NCC Decree 75 of 1992. In addition the Nigeria's telecom sector witnessed a major revolution in 2001 with the granting of the global system for mobile telecommunication (GSM) license to providers. The target of the national economic empowerment and development strategy (NEEDS) and supported by NCC Decree 75 of 1992 vigorously pursued was in line in the attainment of tele-density of 1.25 per 1000 people in the year 2008.

2.2 Emergence of Global System of Mobile Phone (GSM)

The concept importance, economic implications and policy implication of GSM have be delved into by some researchers in the past amongst them was Balogun (2000) who said that the emergence of it facilitates economic development as it provides easy and effective communication needed to stimulate and promote trade between Nigeria and its foreign partners in the world. GSM has emerged as an integral essential part of the culture and life of Nigerians by playing a significant role in communication and encourages investment (Tella et al, 2007).

Researchers like Manuaka (2008) and Okereocha (2008) found that over 1 million Nigerians in respect of gainful employment have been directly and indirectly employed by the operators Soyinka (2008) and Ndukwe (2008) supported the above ascertain by reporting that the GSM business has boost the business of recharge card printing. This has led to the saving of about #150 million monthly while providing employment and new skills for the dealers. According to Obereoda (2008) the telecommunication sector has become a major tool for empowering Nigerians.

Moreover, telecommunication sector has the potential to benefit urban centres, employers, employees and the society at large by reducing the need to travel and by reducing the office distractions (Sindher and Sadler, 2003). More money are saved because of the use of GSM. Egan (1997) pointed out IBM saving $75 million in real estate expenses related to office space. Conclusively as at 2002 more than 108 million users worldwide of GSM are working outside the boundaries of their enterprises.

2.3 Transportation Sector

According to Osoba (2012), spatial interaction in urban setting could be of at lest two types namely: Those that involve physical contacts like day today movement of people and those that do not require such contact like telephoning.

Transportation is very necessary in urban life. It allows people to carry out the diverse range of activities that made up daily life as pointed out earlier on.

Urban travel involves the inhabitants carrying out different activities in different places whether by necessity or by choice. Some studies carried out by Ayeni 1974, Adeniyi 1981, 1985, Ojo 1990 indicated that in general, people tend to travel in order to have access to a variety of other people, goods products, services and facilities that are not available at their immediate disposal. The extent to which how far and by what means they travel is a result of a complex interaction of socio economic, political and physical factors (Adeniji, 1991). However the nature and degree of influence of these factor vary for city to city and even within a given urban centre (Hausa and Schwab, 1987; Garden et al, 1988; Pummer 1986, White, 1990; giding et al, 1994 blat and Koppelman, 1999).

In addition, there seems to exist a strong relationship between movement pattern and the location distribution of activities over geographic space (Goddard, 1970). This relationship is usually determined by certain underlying variables which can never be similar both in developed and developing economics. Short term or daily movement consists of trips involving such activities as work, shopping and recreation, whereas long term or more permanent movement involves changing residence. With recent advancement in telecommunication technologies, movement pattern urban residents have changed considerably.

2.4 Economic Implication of GSM on Transportation Sector Performance

It is believed that both telecommunication and transportation sectors would improve considerably because of the FGN granting license to three GSM operators in 2001 it was than believed that most urban centres cities will overcome transportation complexities and problems. The complexity and problems that are usually encountered include:

- High rate of traffic congestion
- The trip pattern of the urban residents which is usually haphazardly characterized between different activities in the city.
- Unnecessary delay long travel time, evasion of traffic rules/laws
- Traffic congestion because of lack of necessary information to aid pre-arrange contacts to ease traffic flow
- Productive use of time is also inhibited and haphazard in many cities

GSM has enable people to communicate with each other on real time basis, saving time and money, among other conveniences. Its provision help to facilitate access to update information to support real time decisions, increase efficiency in environmental monitoring, disaster control and emergency management. Giving the public traffic reports by some radio stations in Nigeria which had been contacted earlier on by some citizens through the use of GSM phones had help to guide the motorists on the alternative routes when the traffic situation of some of our roads are bad e.g cases of an unforeseen road blockage that may occur as a result of accident or flooding.

GSM has also made communication between those people and their relatives, friends living far away from them instead of embarking on a journey thereby saving them their precious time, money and energy which can be diverted to do other meaningful economic activities.

3. Methodology

3.1 Research Methods

This study adopted a survey research decision of descriptive type in order to find out whether the use of GSM can induce business activities especially its impact on the transport sub-sector of performance of economy.

3.2 Population

The target population for this study were traders, transport owners and commuters in some urban cities of Lagos, south west zone of Nigeria who are GSM phone users alone.

3.3 Sample and Sampling Techniques

The selected cities for this study are Lagos cosmopolitan (Ilupeju and Isholo) and Ibadan city where some respondents were randomly selected. The total respondents used were two hundred (200).

3.4 Research Instrument

The research instrument used was a questionnaire. The questionnaire was divided into two sections. Section A consisted of demographic data of the respondents, Section B consisted of fifteen (15) items in a four (4) point likert scale of strongly agree (SA), Agree (A), strongly disagree and disagree (D). The respondents are required to tick (√) the item that best describe their opinion on the research topic.

3.5 Administration of the Instrument

The questionnaires were administered by both researchers and two trained research assistants.

3.6 Validity and Reliability of the Instrument

The questionnaire was faced validated by the experts in the field of test and measures. A pilot study through test-re-test method was also carried out to test the reliability of the instruments with Pearson's product moment correlation

coefficient with the following result 0.89 i.e. 89% for trading activities, 0.76 i.e. 76% for Transportation Barriers, while 0.93 i.e. 93% movement of goods and services

3.7 Method of Data Analysis

The study made use of both parametric and non-parametric statistics to analyze both demographic variables and the hypotheses tested. The analysis of variance (ANOVA) and Pearson product correlation coefficient were also adopted.

Table 1
Distribution of Respondents

Respondents	**Total**	**Percentage**
No. of Males	115	57.5%
No. of Females	85	43.5%
Total	**200**	**100%**
Age:		
Below 25	15	7.5%
25 – 35 Years	67	33.5%
36 – 45 Years	57	28.5%
46-55 Years	43	21.5%
56 +	18	9.0%
Total	**200**	**100%**
Work Experience		
Below 1 Year	08	4.0%
1 – 5 Years	31	15.5%
6 – 10 Years	37	18.5%
11 – 15 Years	42	21.0%
15 – 20 Years	65	32.5%
20Years +	17	8.5%
Total	**200**	**100%**
Qualification:		
Ph.D.	-	
M.Sc/M.A./MBA	53	26.5%
B.A., B.Sc.	77	38.5%
HND	23	11.5%
OND/SSCE	47	23.5%
Total	**200**	**100%**

Source: Fieldwork, 2013

Test of Hypotheses

$H_0$1: There is no significant relationship between the use of GSM and trading activities in Nigeria

Table II
Pearson Product-moment Correlation Analysis of Use of GSM and Trading Activities in Nigeria

Variables	**N**	**Mean**	**SD**	**r-cal**	**r-tab**	**Decision**
Use of GSM	100	40.29	9.8641	0.66	0.41	*
Trading Activities	100	12.86	5.7651			

* Correlation is significant at 0.05 level (2-tailed)

Table II reveals that there is a positive and significant relationship between the use of GSM and trading activities in Nigeria. r- cal > r- tab (r=0.66, P<0.05). This implies that the null hypothesis is rejected and that there is a significant relationship between the use of GSM and trading activities in Nigeria

$H_0$2: The use of GSM does not constitute transportation barriers to business activities in Nigeria.

Table III: ***Summary of the Mean Difference in the Use of GSM and Transportation Barriers to Business in Nigeria***

Source of variations	**Sum of Squares**	**df**	**Mean Square**	**F-cal**	**F-tab**	**Decision**
Between Groups	77.8	1	9.64	.263	.610	P> .05
Within Groups	15938.2	198	7.68			
Total	**16016.0**					

NS = Not Significant

The One way ANOVA performed indicates that the use of GSM does not constitute transportation barriers to business activities in Nigeria. Df = (1, 198) = .263 < F-tab .610; P>.05. Thus, the null hypothesis is upheld. This implies that the use of GSM does not constitute transportation barriers to business activities in Nigeria

$H_0$3: There is no significant relationship between GSM usage and movement of goods and services in Nigeria

Table IV

Pearson Product-moment Correlation Analysis of between GSM usage and movement of goods and services in Nigeria

Variables	N	Mean	SD	r- cal	r-tab	Decision
GSM Usage	100	3.833	.44917	.592	.41	*
Movement of goods and services	100	.395	.61201			

* correlation coefficient is significant at 0.05 level

The result of the test performed indicates that there is a positive and significant relationship GSM usage and movement of goods and services in Nigeria. (r = .592, P< 0.05). This implies that the hypothesis which there is no significant relationship between GSM usage and movement of goods and services in Nigeria is rejected.

4. Discussion

The hypothesis 1 is significant at 0.05; this is to say that the use of GSM in Nigeria has improved the rate of buying and selling of goods and services in Nigeria. The GSM has actually serves as innovation for business development in Nigeria and that the use of GSM has actually affected the movement of goods and services in Nigeria.

5. Conclusion and Recommendations

Based on the analysis above, It could be concluded that the use of GSM induces business activities in Nigeria. The following recommendations were also made:

The use of GSM as a new technology would help to shape the movement pattern of people in the city thereby easing traffic congestion and delay in transit if the GSM operator improves their services.

Furthermore, GSM operators should reduce their tariff pattern so as allow many people to enjoy the use of GSM. More so, the Nigeria Communication Commission should control the activities of all the GSM operators, this will have a long way to go in improving the quality of services produced the operator.

Apart from the afore mentioned points, since the use of GSM reduces traffic congestion in cities, the travel behaviour of people among the others were affected, so people should be encourage to do most of their transaction on phone since we have what we call E-Commerce and E-Banking.

Finally, each company should encourage the use of GSM in the office so as to improve their organizational performance.

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Appendix:

QUESTIONNAIRE ON: CAN THE USE OF GSM INDUCE BUSINESS ACTIVITIES IN NIGERIA? EVIDENCE FROM P.Z. (CUSSONS) NIGERIA PLC

We humble request you to fill the questionnaire below by ticking the most suitable option. Please be informed that all information obtained through this medium will be kept and treated confidentially.

SECTION A

PERSONAL DATA OR BIO DATA

1. Sex: a Male ( ) b. Female ( )
2. Qualification: a. O' level ( ) b. ND ( ) c. HND/B.Sc/B.A ( ) D. Post Graduate/Professional qualification ( )
3. Occupation: a. Trader ( ) b. service provider ( ) transportation ( )
4. Position in the office:
5. Department:
6. Unit:

SECTION B

RESEARCH QUESTIONS

Key to options
Strong Agree (SA) Agree (A) Uncertain (U) Disagree (D) Strongly Disagree (SD)

S/N	STATEMENT ON RESEARCH	SA	A	U	D	SD
1	Majority of users of GSM in Nigeria are businessmen					
2	GSM serves as a new innovation for business development in your company					
3	A lot of your company's business activities are being transacted on GSM than making personal contacts with your customers					
4	The volume of business transactions done in your company have increased tremendously in the last ten years as a result of the use of GSM					
5	More losses have been incurred as a result of frequent usage of GSM to transact business in your company					
6	What is being paid on making personal contacts for your company business activities is less than what is being spent on using GSM					
7	The cost of tariff paid on the use of GSM is more than transportation cost of carrying goods in your company to designated points/places					
8	Increase in transport cost had made your company resorts to using more GSM networks at a reduce tariff/cost.					
9	The numbers of trips made by your company staff in the process of transacting businesses had reduced as a result of the usage of GSM					
10	Little or no transport cost need to be incurred because of the availability of various GSM service providers network everywhere in the nation					

11	Transportation of goods and services from your company has nothing to do with the use of GSM					
12	The staffers/workers in the transport unit/department of your company do not make use of GSM for their jobs.					
13	Majority of the company distributors make their business orders through the use of GSM					
14	The use of GSM has made the delivery of goods and services of the company to their customers to be faster nowadays					
15	The volume of the company's goods and service movement in and out has increased tremendously.					