

An Influential Analysis of the Impact of E-Commerce on Nigerian Small and Medium Scale Enterprises

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ABSTRACT

The paper assessed the role of e-commerce in Nigerian Small and medium scale enterprises, a case study of Lagos State. Purposive sampling was adopted while data were collected through questionnaire from 1000 respondents that were selected randomly through a stratified random sampling technique. Both descriptive and inferential statistics were used in analyzed data. From the findings, it showed that e-payment Product such as Mobile banking ,Atm , Internet and others are the tools mostly used for e-commerce by SMEs. Also, it is evident that e-commerce application has great positive impacts on SMEs performance. This paper also found that if e-commerce is fully adopted, it will bring an increased in SMEs performance. It was recommended that seminars and conferences, mentor-mentee programs, awareness campaign and motivation and strategic partnership or alliance should be implemented to aid more adoption of e-commerce to boost the performance effectiveness of SMEs in Nigeria.

Keyword: SMEs, E-commerce, Performance, E-payment Product.

1. INTRODUCTION

The adoption ICT in business has enhanced productivity, encouraged greater customer participation and enabled mass customization, besides reducing costs (Yusuf, 2013). Electronic commerce (E-commerce), relies on various information and communication technologies (ICT), has the potential to improve trade efficiency around the globe and to integrate developing countries into the global economy (UNCTAD, 2001). It has changed the traditional way of carrying cash from one place to another. With the advance information technology, the Internet high speed development, electronic commerce has caused the current distribution realm significant transformation gradually as observed by Liang and Yang, (2009). E-commerce may occur between two organizations or buyers may have threat for both sides.

Asghar et al., (2012) opined that it provides effective and efficient ways, such as buyers can gather information rapidly about the availability of the product or services, evaluate or negotiate with vendors. Jetol B. et al (2006) stated that one of the objectives of SMEs is using the opportunity in foreign international market for development. Sandy (2006) also stated that it has been observed and verified in many studies that small and medium enterprises have been actively looking for suitable solution and methods of adopting and integrating e-commerce into their business process. It was also observed that paying attention to an e-commerce strategy will be of necessity and cannot be found without the benefit of their organization goals and strategies for small and long term gain. Asgharet, et al (2012) observed that there is little research on the relationship between e-commerce and its effect on SMEs development. The emergence of e-commerce is expected to change traditional business practices to modern day business practice. The great impact on businesses is anticipated as the advent of the World Web has created electronic or virtual market places where trading could be conducted without any geographical and time barriers.

SMEs play significant role in wealth creation, making up perhaps around a quarter of gross domestic product and often contributing to export as well, also SMEs have been recognized as indispensable components of national development in both developed and developing economics, confirmed this is the research of Abrie and Doussy, (2006); Lai and Arifin, (2011). (Akanji, (2006); Akintoye and Oladejo, (2008). The emergence of e-commerce is creating fundamental changes to the way that business is conducted, Mohd Amirul Akhbar and Mohd Zulkifli (2001). E-commerce has grown and has become an important tool in highly-developed nations; such cannot be said for the lesser developed nations, thus creating a digital divide. Hawkins and Prencipe, (2000) observed that e-commerce is helpful in achieving innovations and improvements rapidly and safety. Lawal (2010) corroborates this that E-commerce offers lower cost per business transaction, especially with respect to mailing and paper cost companies now share information with competitors, producing "competition".

Generally researchers have confirmed that greater levels of electronic commerce adoption have been linked to with improved organizational performance Afshar et al., (2011) Nickels et al., (2007). Raman (1996) and Odeddra-Straub (2003) discoursed that many of the e-commerce benefits have been realized by organizations in developed countries,

there is still skepticism in the relevance of e-commerce and its benefits for developing countries. Taking a wide definition of electronic commerce to cover transactions over computer-mediated networks (including traditional EDI) and inter-firm transactions, e-commerce sales were 13.3% of total business sector sales in Sweden and 7.9% in Finland. Excluding the financial sector they were 10% in Norway and 6% in the United Kingdom and Denmark. For retail sales (B2C) shares were much lower, around 1.4% in the United Kingdom, 1.2% in the United States. Shares for SMEs are probably lower than these shares for the whole economy (OECD 2002b and 2002c). Purchasing over the Internet is more common than selling. For 16 countries for which both internet purchasing and internet sales data are available, only one in eight on averages reported making Internet sales. Twice as many businesses on average use the internet for purchases as for sales, with between 63% and 93% of businesses reported using the Internet, except in Greece and Luxembourg (OECD, 2002).

Asgharet., al., (2011) also describe five different categories of e-commerce applications in SMEs, which are in table 1 below.

Table 1: Five different categories of e-commerce applications

Different Applications of e-commerce	Description	Researchers
Electronic Advertising	Providing product information to customers Displaying company information on website Online electronic brochures or buying guides Display only a range a products which are relevant to the particular customer	Block et al., (1996) Ainin, and Jaffar, (2003) Soh et al., (1997)
Electronic customer support service	Online help-frequently asked question Online products update Handling customers feedback/queries online Online application/registration Personalized email communication	Turban et al., (2000) Ainin, (2000) Fatimah et al., (2000)
Electronic Marketing	Allowing a customer to contact a sales office Share ifnormatin with competitors, customers and suppliers Using internet to find out customers' needs and want Using internet for anticipating customer needs Achieving customer satisfaction through the electronic channel	Arie et al (1995) Block et al (1996) Johnson, (2003) Smith & Chaffey (2005)
Electronic payment system	Electronic Fund Transfer (EFT) Online credit card processing Electronic money Smart and prepaid card	Lawal, (2010) Block et al, (1996) Zwass, (1998) Fatimah, et al., (2000)
Electronic Order and Delivery	Coordinating procurement with suppliers online On-line ordering of software products Lower costs per business transaction Tracking incoming and outgoing goods delivery Online order entry and delivery Electronic Data Interchange (EDI)	Johnson, (2003) Oakes (2002) Turban et al., (2000) Fahri and Omar (2001)

Source: Author Compilation, 2015

The five categories of e-commerce adoption as identified by Asghar et., al., (2011) will be used to measure the extent to which SMEs adopt ICT to enhance their performance. . Ovia, (2007), observed that orgnaizations that implemented e-business at a higher level were operated by managers who had engineering backgrounds and had more skillful workers (engineering graduates) among the workers. Another area where e-commerce has had a boom in Nigeria is the banking sector. At present over 90% of Nigerian banks offer online, real-time banking services which allows customers to perform banking transactions from the convenience of their home or offices. The growth of credit/debit cards and ATMs (Automated teller machines) is proving of the country's rapidly developing e-commerce. Nigerians can now pay, withdraw or transfer funds anywhere in the country with the introduction of MasterCard, Visa card, Inter-Switch and e-transact.

E-commerce is expectedto improve SMEs operation, Performance in a form of transactional convenience, saving of time and quick transaction. The extent to which SMEs adopt e-commerce and reason for adopting worthy of research because ICT adoption by Nigeria SMEs is low because of limiting factors such as poor telecommunication infrastructure, limited ICT literacy, inability to integrate ICT into business processes, high costs of ICT equipment, incomplete government regulations for e-commerce, and a poor understanding of the dynamics of the knowledge economy (Lucey,2005) furthermorelitttle research have been conducted on E-commerce and SMEs performance in

Nigeria. Thus, the focus of this research shall be on determining the relationship between E- business SMEs and SMEs performance, determining the extent of E- commerce adoption by SMEs and the effect of e- commerce adoption by SMEs.

1.1 Aim and objectives

The aim is to examine the roles of electronic commerce on small and medium enterprises business in Nigeria.

While the objectives are;

- i. to determine the extent to which SMEs have adopted e-commerce and its impact on their performance.
- ii to examine the effect of e-commerce adoption on SMEs performance.

1.2 Hypothesis of the Study

H₀: There is no significant relationship between e-commerce adoption and SMEs performance.

2. MATERIALS AND METHODS

The study was conducted in 20 Local Government areas, Lagos State, Nigeria, with a population estimated of 1,277,714 (Cencus, 2007).It consists of SMEs that are into hotels management, agriculture and firm products, bakery and sachet water industry.Data were gathered through structured questionnaire and personal interview. Stratified random sampling technique was used in selection of SMEs for the research. A total number of 1200 questionnaires were administered, out of which 1000 were returned. For the data analysis, descriptive statistics of frequency and percentage, Chi- Square and Cramer V statistic will be employed to measure the effect and relative strength and extent of the association between e-commerce adoption and the performance of SMEs in Nigeria with the aid of SPSS 17.

$$V = \sqrt{\frac{\chi^2}{n(c-1)}} \quad (1)$$

Where χ^2 is the Chi-square , n is the number of observation and c is the smaller number of rows or columns.

Characterizations of Crammer V values.

- >0.5 High association.
- 0.2 to 0.5 Moderate association.
- 0.1 to 0.2 Low association.
- 0 to 0.1 Little if any association.

3. DATA PRESENTATION AND ANALYSIS

Below are the frequencies and descriptive socio-economic analysis of the sampled SMEs.

Source: Author Compilation, 2015

Table 2: Respondent Position

	Frequency	Percentage
Manager	585	58.5
Owner	149	14.9
Senior staff	266	26.6
Total	1000	100.0

Source: Author Compilation, 2015

Table 3: Years in Operation

Year	Frequency	Percentage
1-5	605	60.5
6-10	375	37.5
11-15	20	2.0
Total	1000	100.0

Source: Author Compilation, 2015

Table 4: Employees Number

	Frequency	Percentage
1-20	70	7.0
21-200	549	54.9
201 above	381	38.1
Total	1000	100.0

Source: Author Compilation, 2015

Table 5: Ownership of the factory

	Frequency	Percentage
Sole proprietorship	767	76.7
Partnership factories	233	23.3
Total	1000	100.0

Source: Author Compilation, 2015

Tale 6: Capital Base

	Frequency	Percentage
10-50m	205	20.5
51-100m	350	35.0
101-200m	425	42.5
201-500m	20	2.0
Total	1000	100.0

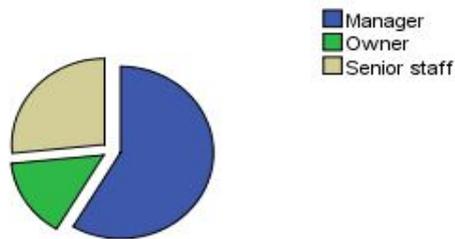


Figure 1: Chart showing the respondent position



Figure 2: Chart showing years in operation

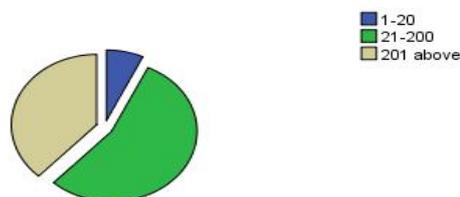


Figure 3: Chart showing the Number of Employee

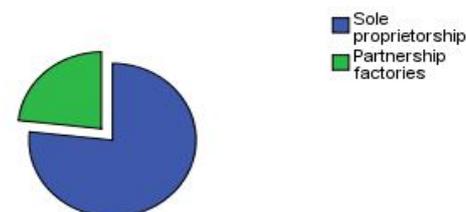


Figure 4: Chart showing the ownership of the factory

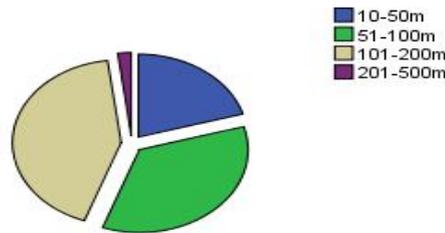


Figure 5: Chart showing the ownership of the factory

3.1 Chi-Square Test

Table 7a: Test Statistics

	It increases SMEs profitability	It increases SMEs productivity	It increases sales growth	It increases turnover	It enhances service delivery
Chi-Square	1294.328	732.536	857.162	1484.456	1999.180
Df	3	2	2	3	4
Asymp. Sig.	.000	.000	.000	.000	.000

Source: Author Compilation, 2015

Table 7b: Test Statistics

	It increases SMEs efficiency	It enhances market expansion	It increases number of customer	It enhance SMEs growth	It enhances SMEs trade internationally
Chi-Square	1964.300	1943.560	1917.730	1394.456	2006.340
Df	4	4	4	3	4
Asymp. Sig.	.000	.000	.000	.000	.000

Source: Author Compilation, 2015

Findings: From the above chi-square report it is seen that the adoption of e commerce are all significant to the SMEs performance.

Table 8: Effect of E- commerce adoption on performance indicator using Crammer V Statistic

Effect of e-commerce	SA	A	U	D	SD	TOTAL	CRAMMER V	REMARK
Increases profitability	700	289	6	5	-	1000	0.234	Significant
Increases productivity	704	286	10	-	-	1000	0.268	Significant
Increases growth	747	247	6	-	-	1000	0.267	Significant
Increases turnover	750	242	7	1	-	1000	0.285	Significant
Enhances service delivery	727	267	4	1	1	1000	0.290	Significant
Increases SMEs efficiency	725	259	12	3	1	1000	0.285	Significant
Enhances market expansion	721	262	15	1	1	1000	0.278	Significant
Increases number of customer	716	266	7	9	2	1000	0.279	Significant
Enhances SMEs growth	732	250	17	1	-	1000	0.271	Significant
Enhances SMEs trade internationally	731	257	7	2	2	1000	0.254	Significant

Source: Author Compilation, 2015

Findings: The extent of the role played by e-commerce adoption on SMEs performance is moderately strong all through and desirable. Thus, the null hypothesis is rejected and conclude that there is significant relationship between e-commerce adoption and SMEs performance.

4.CONCLUSION

The rate at which SME are folding up calls for urgent attention because of their importance to the economy. Hence, the cost of doing business in Nigeria is still high likewise the cost of marketing products and services. Those that have adopted e-business have confirmed its positive and no bad effect on their performance. Although, the unprecedented acceleration of Information, Communication and Technologies (ICT) have contributed to the recognition of a wide range of new technologies, business practices and features not to mention the emergence of e-business, e-commerce, e-marketing, e-banking, e-learning etc.

4.1Recommendation

Though research in this area is few and their findings are contradictory, the European Commission (2008), states that SMEs should use ICT (e-business) in order to grow and to become more innovative. Obasan (2011), conducted research in Nigeria and it showed that e-business usage contributed zero or no contribution to performance of SMEs while Osabuohienet *al* (2008) conducted research in Nigeria and e-business showed a positive effect on the performance of business, because of the conflict in their results it could not be generalized, in respect to this it calls for further research.

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