

Electronics-Commerce and Performance of Medium Sized Enterprises in Nigeria

Ademeso, J. Olufemi

Department of Business Administration, Federal Polytechnic Ilaro. PMB 50, Nigeria

Abstract

This research paper examined the impact of e-commerce and performance of medium size enterprise. Designed questionnaires were examined on fifty (50) randomly selected SMEs in Ogun state area of Nigeria. To achieve this, the state was divided into five (5) Clusters of Sango industrial areas, Agbara industrial areas, Abeokuta metropolis, Owode Egba axis and Ijebu/Remo axis. Random samples of ten (10) SMEs were selected from each cluster and designed questionnaire examined on their top management staffs. Simple percentage analysis was employed to evaluate the level of responses and hypothesis formulated were tested using chi-square technique. The results shows that e-commerce has impacted positively on the performance of medium sized enterprises thereby enhances service operations, cost operations reduction and also increase profit levels.

Keywords: *E-commerce, performance, medium size enterprises, chi-square, online products.*

Corresponding Author: Ademeso, J. Olufemi

Background to the Study

Medium sized enterprises have played a key role in the economy of both developed and developing countries in terms of turnover, level of employment and served as a mechanism to fight against poverty. Electronic- commerce, according to Bansal and Sharma (2006) is rapidly transforming the way a business functions are performed and posing new challenges to the entrepreneurial profession. This view is further explained by Olivier (2009) that one of the important current influences on the business operation is the development of new information technology prior to the emergence of electronic payments, banks transactions remain the widely accepted mode of payment in business, this cash payment was only popular where it became inevitable especially in transactions dealing with minimum price such as foods, groceries where electronic payment may not be convenient. Medium sized business have played a key role in the economies of both developing countries in terms of turnover, level of employment and serve as mechanisms to fight against poverty as evidenced in the literature (Akande, 2003; Fayolle and Gailly 2005; Akanji, 2006; Akintoye and Oladejo, 2008). The current wave of information technology calls for the attention of Medium sized business entrepreneurial and scholars. E-commerce, according to Basal and Sharma (2006), is rapidly transforming the way of businesses function are performed, posing new challenges to the Entrepreneurial profession. This view is further corroborated by Olivier (2009) that one of the most important current influence on the business operation is the development of new information technology. Prior to the emergence of electronic payment, banks transactions remain the widely accepted medium, especially in transactions dealing with minimum price such as foods, groceries etc.

Small and Medium scale enterprises are certainly not transactional company, multinational cooperation, publicly owned enterprises or large facility of any kind. However they can depend on business and ownership structure to become a large business unit (Liedholm, 1987) while it can be argued that 80% of the financing of SMEs comes from owners, friends and families, business can take different forms including private ownership, limited partnership, contract and sub-contracts, cooperatives or association (Akande, 2005; Kozak, 2007). Small and Medium Scale enterprises have a narrow context which its operation is carried out. However, where it is effectively operated it has capacity to sprout the economic growth and national development. In every economic growth and development either in developed or developing economies. Several studies have confirmed this (Ovia, 2000; Ojo, 2004; Asaolu, 2004; Akande, 2005; Kozak, 2007; Oladejo, 2008).

Mahmood and Mann (2008); Oladejo and Yinus (2013) suggest that taking advantage of information Technology diffusion is possible for business organization and adoption of IT can provide organization with valuable information, improved performance, improve relationship with customers and suppliers, increase efficiency and reduce cost of production among others. Evidence also shows that full-size business organizations have taken the opportunity of IT to gain the edge over their competitors unlike the small and medium enterprises. The influence of IT on medium enterprises is worthy of exploration in this current move to cashless economy.

Cashless economy has always been the advocacy of most countries of the world where carriage of cash at effecting transactions are utterly discouraged. Money in the traditional sense no longer exists at present times. Today technology has made the need to carry heavy cash outdated, inconvenient and of no use (Popoola, 2010; Odior and Banuso, 2012; ALGamidi, Nguyen & Drew, 2012). Along with the 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).

Experiences from practices of business over the world and hypotheses derived from institutional economics and the theory of collective action, as observed by (Mahmood and Mann, 2008; Oladejo and Yinus, 2013) suggest that taking advantages of information technology diffusion is possible for business organization and adoption of IT can provide organization with valuable information improve performance, improve relationship with customers and suppliers, increase efficiency and reduce cost of production among others. Evidence also shows that full-size business organization has taken the opportunity of IT to gain the edge over their competitors unlike the small and medium enterprises. The influence of information technology on SMEs operations for better performance is worthy of exploration in this current move to cashless economy.

The information technology concept is a new development that has change ways and manner of doing things, in commerce, trade agriculture, and manufacturing and government service. It is to be adopted by business as a matter of responding to world dynamics. Highlighting the impact of IT in recent years, Oladejo and Adereti (2010) observed that the 1990s witness the proliferation and hyper growth of internet technologies, which together are creating the enormous investment in IT during recent years demonstration the effect on such on organization performance has proven extremely difficult (Mohmood and Mann 2000). Nigeria is largely a cash-based economy with over 90 percent of funds residing outside the banking sector as against the developed world where the money in circulation is 4 percent US and 9 percent in U.K as submitted by (Ovia, 2009 and Ojo, 2004). Whereas the cash a culture informed by ignorance, illiteracy, and lack of security consciousness and appreciation of the merit of digital payment.

According to world development report(1999), for leading countries in the world economy, the balance between knowledge and resources has shifted so far towards the fact that knowledge has become perhaps the most important factor determining the standard of living more than land, tools, and labor. Today's most technologically advanced economics are truly knowledge based. Countries in the world are moving from an industrial economy to a knowledge economy in which economic growth is dependent on a country's ability to create, accumulate and disseminate enabling people to put the pace of globalization and increase the complexity of business of practices because firms not only need to be familiar with their local context but also with global developments. Thus, to compete in the knowledge economy, countries need a strong IT literate skilled based that can innovate and adapt to change on continuous basis.

The use of ICT to improve business competitiveness has gained recognition in several studies and indeed SMEs have been trying and testing new e-commerce models in spite of their scarce resources (Dongen, Mainland & Sadowski, 2002). The main factors that push for successful innovation are a combination of having a dedicated and motivated individual, usually the chief Executive officer (CEO) and paying attention to a multitude of good management activities and attitudes (Tidd, Bessant, & Pavitt, 2001) this includes the ability to scan, predict and respond to the dynamic business environment. Actinic (2003) recent survey suggest that the main reason for e-commerce adoption amongst UK SMEs is to increase sales while others suggest more illusory motivations for adopting e-commerce.

Kalakota and Robinson (2001) see the adoption of e-commerce as more of an external pressure brought about by a new type of customer value proposition of what they want, when and how they want it and at the lowest cost. Idisemi et al, (2011) Investigated factors affecting the effective utilization of information and communication technology (ICT) and the adoption of more sophisticated ICT solution in small and medium-sized enterprises (SMEs) in Lagos, Nigeria. The paper identifies eight key factors that affect the effective utilization and adoption of more sophisticated or advance ICT solutions in Nigerian SMEs. The barriers identified includes: infrastructural inadequacy, financial constraints/cost of implementation, lack of awareness and education, lack of skills and training, lack of openness and knowledge sharing, lack of policy and institutional framework, electricity constraint, lack of support from government and banks.

Objective of the Study

The objective of this paper is to examine the impact of e-commerce and performance of medium size enterprise.

This research will be focused in solving the following research questions and form basis of opinion for the hypothesis listed below:

Research Questions

- i. What is the impact of Information Technology on medium enterprises performance?
- ii. Does information technology influence the growth of medium enterprises operation?
- iv. Does electronic commerce increase the profit of medium sized enterprises?
- v. What are the barriers to electronic commerce?
- vi. What are the benefits to electronic commerce?
- vii. Does electronic- commerce increase medium sized enterprises goodwill?

Research Hypothesis

Hypothesis 1

H₀: ICT has no significant impact of the performance on medium sized enterprises.

H₁: ICT has significant impact of the performance on medium sized enterprises.

Hypothesis 2

Ho: Electronic- commerce does not enhance profitability of medium sized enterprises

H₁: Electronic- commerce enhance profitability of medium sized enterprises

Methodology

Designed questionnaire were examined on fifty (50) randomly selected SMEs in Ogun state Government area of Nigeria. To achieve this, the state was divided into five (5) Clusters of Sango industrial areas, Agbara industrial areas, Abeokuta metropolis, OwodeEgba axis and Ijebu/Remo axis. Random samples of ten (10) SMEs were selected from each cluster and designed questionnaire examined on them. These SMEs vary from Artisans, Medium scale manufacturers, Wholesalers and Super stores owners etc.

The questions raised majorly were meant to established the challenges encountered in their businesses and whether they possess the required technical education or not including relevant I.T education to enable them engage in E-Commerce; and if they possess it, to know if it has any positive impact on the way and manner they carried out their day to day business activities. The questionnaire was carefully divided into two parts: respondent bio - data and questions relating to the research topic and capable for testing the stated research hypothesis. These questions are designed in four point likert scale type.

Reliability and Validity measure was carried out using test-re-test measure. Reliability is the degree to which a particular measure generates similar response over time and across situations while validity can be defined as the test or measure that does what it is supposed to do and also make accurate prediction (Fagoyinbo,2009). The analytical technique adopted in this research are Simple Percentages, Cronbach's Alpha and Chi-square statistic and all these were executed on SPSS.

Results and Discussion

The analysis of the various data collected in the course of the research were presented below. The analysis would therefore form the basis for validation or otherwise of the hypothesis postulated.

Presentation of Result

Percentage Analysis

Table 1

E-commerce Increase the Good will of your Company

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	29	58.0	58.0	58.0
A	13	26.0	26.0	84.0
Valid D	7	14.0	14.0	98.0
S.D	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 2
E-commerce Increase the Cost of Production of your Company

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	5	10.0	10.0	10.0
A	32	64.0	64.0	74.0
Valid D	3	6.0	6.0	80.0
S.D	10	20.0	20.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 3
E-commerce Increase the Profitability of Medium Size Enterprise

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	14	28.0	28.0	28.0
A	26	52.0	52.0	80.0
Valid D	9	18.0	18.0	98.0
S.D	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 4
E-commerce bring more Customers and Retain the existing ones

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	16	32.0	32.0	32.0
A	31	62.0	62.0	94.0
Valid D	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 5
E-commerce has Significant Impact on Performance of Medium Sized Enterprises

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	24	48.0	48.0	48.0
A	13	26.0	26.0	74.0
Valid D	12	24.0	24.0	98.0
S.D	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 6
The Introduction of e-commerce in your Company Increase Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	11	22.0	22.0	22.0
A	27	54.0	54.0	76.0
Valid D	3	6.0	6.0	82.0
S.D	9	18.0	18.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 7
Electronic Commerce Increases Medium Enterprises Goodwill

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	12	24.0	24.0	24.0
A	21	42.0	42.0	66.0
Valid D	10	20.0	20.0	86.0
S.D	7	14.0	14.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 8
E-commerce Encourages increase in Sales Volume of your Company

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	19	38.0	38.0	38.0
A	25	50.0	50.0	88.0
Valid D	6	12.0	12.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 9
ICT has Significant Impact on the Performance of Medium Sized Enterprises.

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	18	36.0	36.0	36.0
A	5	10.0	10.0	46.0
Valid D	21	42.0	42.0	88.0
S.D	6	12.0	12.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 10
Introduction Technology Influences the Growth of Medium Enterprises Operation

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	14	28.0	28.0	28.0
A	24	48.0	48.0	76.0
Valid D	9	18.0	18.0	94.0
S.D	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 11
ICT has Significant Impact on the Performances on medium sized Enterprises

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	14	28.0	28.0	28.0
A	11	22.0	22.0	50.0
Valid D	10	20.0	20.0	70.0
S.D	15	30.0	30.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 12
Electronic Commerce does not enhance Profitability of medium sized Enterprises

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	5	10.0	10.0	10.0
A	13	26.0	26.0	36.0
Valid D	29	58.0	58.0	94.0
S.D	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Field work August 2015

Table 13
E-commerce has Impact on your Company's Management

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	15	30.0	30.0	30.0
A	11	22.0	22.0	52.0
Valid D	24	48.0	48.0	100.0
Total	50	100.0	100.0	

Field work August 2015

Table 14

The Introduction of e-commerce in your Company Improves the Producer Consumer Relationship

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid S.A	24	48.0	48.0	48.0
A	21	42.0	42.0	90.0
D	5	10.0	10.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 15

Company's Environment permits the Effective and Efficient use of e-commerce Transaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid S.A	13	26.0	26.0	26.0
A	31	62.0	62.0	88.0
D	1	2.0	2.0	90.0
S.D	5	10.0	10.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 16

Customers are Responding Positively to the Introduction of e-commerce in your Company

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid S.A	4	8.0	8.0	8.0
A	29	58.0	58.0	66.0
D	11	22.0	22.0	88.0
S.D	6	12.0	12.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 17

Information technology has an impact on medium size enterprises performances

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid S.A	15	30.0	30.0	30.0
A	32	64.0	64.0	94.0
D	2	4.0	4.0	98.0
S.D	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

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Medium size Enterprise faces Series of Challenges in Adoption of IT

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Field Survey August 2015

Table 19

Introduction of e-commerce has any barrier to performance of medium sized enterprises

	Frequency	Percent	Valid Percent	Cumulative Percent
S.A	5	10.0	10.0	10.0
A	6	12.0	12.0	22.0
D	23	46.0	46.0	68.0
S.D	16	32.0	32.0	100.0
Total	50	100.0	100.0	

Field Survey August 2015

Table 20

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.989	.991	25

Table 21:

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2 - sided)	Exact Sig. (1 - sided)
Pearson Chi-Square	28.395 ^a	1	.000		
Continuity Correction ^b	25.393	1	.000		
Likelihood Ratio	36.398	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	27.827	1	.000		
N of Valid Cases	50				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.20.

Table 22: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	14.489 ^a	1	.000		
Continuity Correction ^b	12.218	1	.000		
Likelihood Ratio	19.867	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	14.199	1	.000		
N of Valid Cases	50				

5.2.1.1

Table 1-19 present the percentage responses sought from the employees of the SMEs evaluated. Greater proportion of the employees strongly agreed that E-commerce has impacted positively on the performances of SMEs in Ogun State Nigeria.

The results of the cronbach's reliability test performed with twenty five (25) randomly selected questionnaires presented in table 20 shows that the survey is 98.9% reliable. The hypothesis earlier stated was tested using chi-square technique and the results are as presented in table 21 and 22.

According to table 21, $\chi^2(1)=28.395, \rho < 0.001$, $\chi^2 = 28.395$ with the degree of freedom 1 at significant value of $\rho < 0.001$ gave rise to the opinion that ICT has significantly impacted on the performance of medium sized enterprises. Therefore, we have sufficient evidence to accept the alternative hypothesis H_1 .

The results of table 22 equally presents a value of $\chi^2(1)=14.489, \rho < 0.001$. This value of $\chi^2 = 14.489$ with the degree of freedom 1 at significant value of $\rho < 0.001$ gave rise to the opinion that ICT has significantly enhanced the profitability of medium sized enterprises, hence we cannot reject the alternative hypothesis H_1 .

Conclusion and Recommendation

This research paper examined the impact of e-commerce and performance of medium sized enterprises in Nigeria. The result showed that e-commerce adoption has significantly impacted on service operations, cost operation reductions and profit level. It can thus be concluded that adoption of e-commerce by Nigerian medium sized enterprises will reduce transaction cost, improve service operations, expand business bases and also increase profit level. E-commerce has been identified as important tool that will assist Nigerian companies to acquire information about customer needs and foreign competitors from foreign distributions all over the world. Thus, if e-commerce is well implemented it would lead to improved management and technology performance.

The following recommendations are however made to improve on the performances of SMEs in Nigeria.

Recommendation

1. E-commerce enhances the profitability of medium size enterprises so it is recommended that organization should engage in E-commerce to increase their performance.
2. Organizations should develop their capacity to use e-commerce the more because it will enhance their product sales turnover.
3. E-commerce should be used by medium and small organizations because it will assist them to reach out to more client/customers faster and cheaper.
4. E-commerce increases medium size enterprises goodwill so it is advised that organization should adopt a well-managed e-commerce strategy to attain the necessary goodwill required for business sustainability.
5. Government should make power supply stable and provide adequate internet facilities which are the backbone for e-commerce.

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