

Technological Adoption of e-Commerce in Nigeria

Dr Isa Ali Ibrahim

Asst Professor, Faculty of Computer Science &
Information Systems,
Islamic University of Madinah, 42351,
Kingdom of Saudi Arabia

Mohammed Abubakar

Faculty of Man Technology,
Abubakar Tafawa-Balewa University,
Bauchi

ABSTRACT

The study demonstrates e-Commerce adoption in Businesses. The main objective of the study is to provide a potential study that shows the capabilities and competitiveness of e-Commerce in businesses, to stimulate interest of businesses on e-Commerce as it gives customers more market power and companies unlimited access to customers across the globe, to identify the challenges and hindrances of adopting e-Commerce in businesses. Methodologies employed for sourcing of accurate and adequate information consist of both primary and secondary means. The sample size of 120 questionnaires were used to obtained opinions from various respondents in which 112 questionnaires were returned. The hypotheses of the study were tested. The study recommends an elaborate e-Commerce legal frame work should be established by the Nigerian legislatures in order to buy the confidence of e-Commerce users. Configuring e-Commerce for mobile web will also open the e-Commerce industry substantially. E-Commerce strategy should be crafted around mobile platforms in order to achieve a good mile-age in the interim and a substantial level of market penetration in Nigeria. Government should also invest in training and other enlightenment programs that are very vital to attitudinal changes of consumers to e-Commerce transactions in Nigerian markets. Despite the increased proliferation of e-payments solutions in Nigeria there is still great need of government to partner with private sectors to enhance standardization of e-payment process so as to buy the confidence of international e-Commerce subscribers to have confidence in the Nigerian e-payment and e-Commerce systems.

Keywords

E-commerce, Adoption, Technology, Business, Nigeria

1. INTRODUCTION

1.1 Background to the Study

The Internet has brought about the emergence of virtual markets with four primary distinct characteristics, which are real-time, shared, open and global (Mohammad, 2003). The internet business is taking on a serious dimension in the country especially within the more commercial states of the nation. A lot of startups are springing up within the cyber space and each one is targeting the over 40 million internet users in the country. Presently Jumia and Konga are the “Beasts” of e-Commerce in Nigeria (Babatunde, 2013).

E-Commerce offers a level playing ground for large businesses, as well as small and medium-scale enterprises (SMEs) to operate in the global market-place; and for regional businesses and communities to participate in social, economic and cultural networks seamlessly across international boundaries (Mary-Anne,

1998). However, with the paradigm shift in the mode of operation occasioned by the advent of the Internet, global corporations now operate with much consistency and at reduced cost of transactions as if the entire world were a single entity. The Internet has changed the face of businesses and is providing consumers with the ability to bank, invest, purchase, distribute, communicate, explore, and research from virtually anywhere, anytime there is Internet access (Anup,1997).

1.2 Problems Statement

Some of the problematic challenges and issues facing e-Commerce in Nigeria today are; Lack of awareness and understanding of the value of e-Commerce, lack of ICT knowledge and skills, financial costs is a crucial issue over initial investment for the adoption of a new technology, lack of adequate infrastructure to guarantee availability and security of e-Commerce transactions is highly inefficient (Ovia 2002, Ojo 2004, and Bickersteth, 2005). Language barriers and low levels of English fluency, lack of familiarity with e-Commerce technologies, a cultural preference for more traditional trade practices involving face-to-face contact between buyer and seller, continued preference for the use of cash in transactions.

1.3 Objectives of the Study

- i. To provide a potential study that serve as a road map to comprehending and adopting the capabilities and competitiveness of e-Commerce in businesses.
- ii. To stimulate interest of businesses in e-Commerce that the internet is revered for giving customers more market power and companies unlimited access to customers across the globe.
- iii. To identify the challenges and hindrances of adopting e-Commerce that needs to be solved in order to facilitate e-Commerce activities in businesses.

1.4 Significance of the Study

The study could provide deep insight on the values and benefits of the e-Commerce innovative Products/Services to motivate consumers towards efficient interactions based on their interest, ability and aspiration. It will also be useful to the study of computing and other related courses in making references.

1.5 Research Hypothesis

Hypothesis One

- H₀ e-Commerce adoptions do enhance business performance.
H₁ e-Commerce adoptions do not enhance business performance.

Hypothesis One

- H₀ Businesses do experience high customer penetration in adopting e-Commerce services.
- H₂ Businesses do not experience high customer penetration in adopting e-Commerce services.

2.0 LITERATURE REVIEW

2.1 E-Commerce conception

Kinder (2002) Define E-Commerce as commercially purposive systems or processes of search, assessment and transactions, including post transaction interactions, enabled and supported by information and communications technologies. Commercial activities revolve around exchange, which may be decomposed into three elements: search, assessment and transaction (SAT). This is also valid for e-Commerce (Kinder, 2000a).

In other submission (Andam, 2003) observed that E-Commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals.

In a variety of shapes and ratios, e-Commerce features physical and virtual constituents and its lifeblood are the communities of customers and suppliers interconnected and interacting to constitute markets and supply-demand chains within that network. Kinder (2002) However, it is worth noting that e-Commerce can involve interactions within and between at least three sets of parties; Private business (B), Public administrations (PA), Consumers/Citizens (C).

2.2 E-Commerce Degree of Digitization

Choi et al (1997) Created a framework for the categorization of e-Commerce into different configurations based on the degree of digitization of the product or service sold, the process of the transaction and the delivery agent.

2.2.1 Traditional e-Commerce

Choi et al (1997) stated that where products or services are physical, the process of the transaction is physical and the delivery agent is physical. For example a corner shop stocks newspapers that are bought with cash over the counter and are taken away by the customer out of the shop. However, in reality in today's world, it is very rare that a business is truly traditional because of the use of EPOS systems for payment (electronic point of sale systems).

2.2.2 Partial e-Commerce

Choi et al (1997) opined that where either one or two of the dimensions are physical, for example in the case of booksellers Amazon, the products (books) are physical, the process is digital and the delivery agent is physical. A study by Forrester Research¹⁹ predicted that by 2003, most Web based retailers will deliver products electronically and that almost a quarter of retailers will obtain 16–50 per cent of their revenue from these digital downloads.

2.2.3 Pure e-Commerce

Choi et al (1997). Where products or services are digital, the process of the transaction is digital and the delivery agent is digital. For example, software update services of companies like Microsoft, Cisco, Symantec; downloading of electronic books;

peer-to-peer file sharing like Napster would also be considered pure e-Commerce.

Classifying e-Commerce by degree of digitization is a useful way for managers to analyze the range of products/services they sell, the processes of carrying out and finalizing the transaction and the way the product/service is delivered. By identifying the areas that could potentially be digitized, and organizations can re-engineer their business processes to improve efficiency, reduce costs, access global markets and benefit from the advantages presented by e-Commerce and e-Business.

2.3 E-Commerce links Customers, Workers, Suppliers, Distributors and Competitors

Andam (2003) observed that E-Commerce facilitates organization networks, wherein small firms depend on "partner" firms for supplies and product distribution to address customer demands more effectively. To manage the chain of networks linking customers, workers, suppliers, distributors, and even competitors, an integrated or extended supply chain management solution is needed.

2.4 E-Commerce Platforms

E-Commerce basically operates on digital technology for its activities and transactions which is totally based on e-Communication. (Turban et al, 2008). According to them, the technology used includes internet communications via websites, emails (intra-net and extranet), digital media such as mobile or wireless media for the availability of cable television and satellites, mobile phones/devices for mobile banking services and also telemarketing, fixed telephone lines which are used for telephone banking. While all these platforms are basically used for e-Commerce operations, it is important to state the importance of the web as it is the base of all the e-Commerce platforms. This is due to the fact that web has been a very useful tool in breaking through different nations and transactions can be done at almost any time irrespective of the various time zones that exist around the world.

2.5 E-Commerce and E-Business

Some use e-Commerce and e-Business interchangeably but they are distinct concepts. Andam (2003), in e-Commerce, information and communications technology (ICT) is used in inter-business or inter-organizational transactions (transactions between and among firms/organizations) and in business-to-consumer transactions (transactions between firms/organizations and individuals).

In e-Business, on the other hand, ICT is used to enhance one's business. It includes any process that a business organization (either a for-profit, governmental or non-profit entity) conducts over a computer-mediated network. A more comprehensive definition of e-Business is: "The transformation of an organization's processes to deliver additional customer value through the application of technologies, philosophies and computing paradigm of the new economy."

Three primary processes are enhanced in e-Business:

2.7 Different Types of E-Commerce

The major different types of e-Commerce are: business-to-business (B2B); business-to-consumer (B2C); business-to-government (B2G); consumer-to-consumer (C2C); and mobile commerce (m-commerce) Andam (2003).

3.0 RESEARCH METHODOLOGY

This segment of the research dwelled on the population, the sample technique and sample size, and the data collection instruments, the methods of data analysis used in conducting the study on the “e-Commerce adoption in Businesses” and a case study of First Bank of Nigeria Ltd.

3.1 Research Design

The study implemented the descriptive survey design. This was a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2003). This was appropriated to enable data presentation in a meaningful form, thus help to offer ideas for further probe and research and then help in making certain simple decisions.

3.2 Population of the study

The population of interest for this study is Businesses/SMEs who are using or developing e-Commerce services, such as banks. The study population is First Bank of Nigeria Ltd, Jos; the bank uses e-Commerce services in their business transactions.

3.3 Sampling Technique and Sample Size

The study adopted the simple random sampling where each respondent in the population has equal chance of being a subject in the sample. This view was used to obtain data that may randomly represent the population of the study. The population samples of 120 staff from First bank of Nigeria were selected for the study.

3.4 Data Collection Instruments

Burns and Grove (2005:23) asserts that, Quantitative research is a formal objective, systematic process in which numerical data are used to obtain information about the world. The researcher used a self administered Observation, Interview and Questionnaire, the questionnaire sought responses of the respondents from First Bank of Nigeria Ltd, Jos as it uses e-Commerce in its banking operations/activities.

3.5 Sources of Data

The study collated data from both primary and secondary sources. The primary data was generated from interview and structured questionnaire to collect relevant data. The Secondary data was gathered from e-Commerce written e-literatures and the internet websites.

3.6 Method of Data Analysis

Graphical method was used to depict the data collated, and charts were used to facilitate the illustration and comprehension of the analyses carried out.

3.7 Methodological difficulties

Actually there was not much of significant difficulty encountered in the course of dispensing the questionnaires and interacting with the interviewees, they were really cognitive and conversant with ICT and e-Commerce technology in their Bank banking services and their responses were highly efficient and contributing to the research study.

4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This section demonstrates the analyzed data collated for more easy comprehension; it also features responses and summary of findings of the research.

4.1 Presentation and Analyses of Data collated from the Instruments Administered

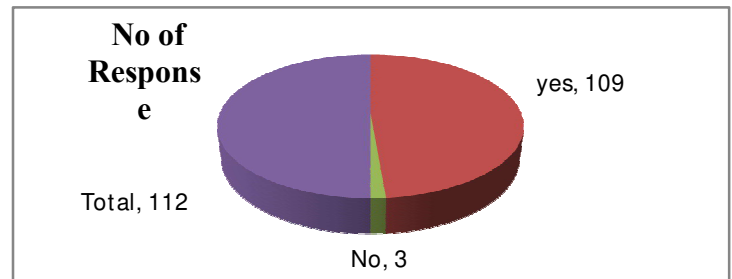
Presentation of Data

Table 1: Table and Chart Four: Returned Questionnaires

Numbers of questionnaire.	Respondents.	Percentage
Total questionnaire administered.	120	100 %
Total questionnaire completed/returned.	112	93.3%
Total questionnaire not completed/returned.	8	6.7%

4.1 Charts of the Finding

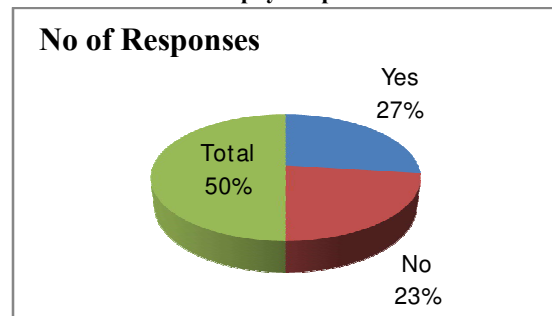
Table 2: Chart Five: e-Commerce awareness.



Source: field survey

The above chart shows 109 or 47% of the respondents are aware of e-Commerce while 3 or 1% of the respondents are not aware of the e-Commerce. This signifies that e-Commerce is gaining more acceptance or momentum among the populace.

Table 3: Chart Six Use of e-Commerce e-payment systems to pay for purchases

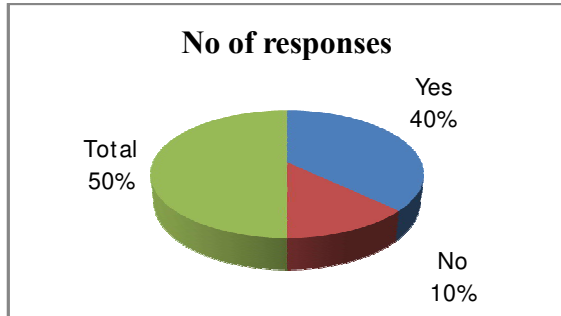


Source: field survey

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This chart expresses 60 or 27% of the respondents use e-Commerce e-Payment services to pay for purchases while 52 or 23% of the respondents decline patronizing or use of e-Commerce e-payment services, this entails that e-Commerce services users are gradually subscribing to the use of e-Commerce e-payments services in their purchases.

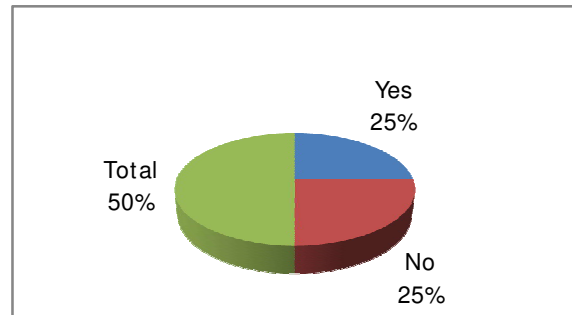
Table 4: Chart Seven Afraid of the e-Commerce transactions



Source: field survey

The chart above depicts 40 % of the respondent are not afraid of e-Commerce transactions and 10% are likely afraid of the e-Commerce transactions process due to how they are not so conversant with e-Commerce processes.

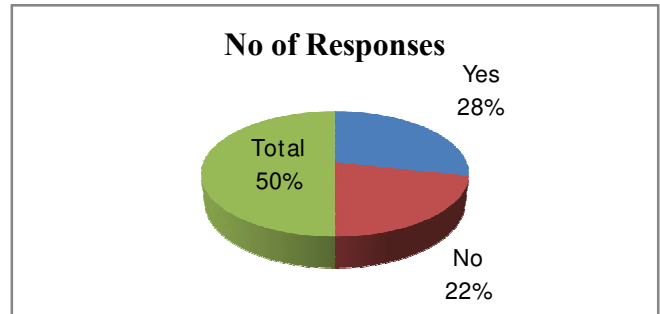
Table 5: Chart Eight Trust on Nigerian e-Commerce Businesses to deliver Purchases.



Source: field survey

Based on this chart 25% of the respondents implies that they trust e-Commerce businesses to deliver their purchases however 25% are of the view that they don't. By implication, this reveals that e-Commerce is gaining penetration due to some of the reliable services offered to clients in the e-Commerce transactions.

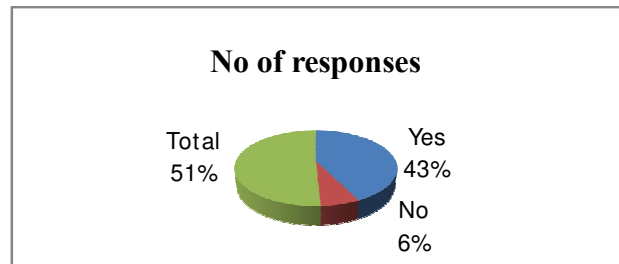
Table 6: Chart Nine Level of confidence in Nigerian e-Commerce businesses



Source: field survey

This chart describes the level of confidence some e-Commerce users are having in Nigerian e-Commerce business industry with about 28% so also about 22% shows how they are not having much confidence in Nigerian e-Commerce businesses.

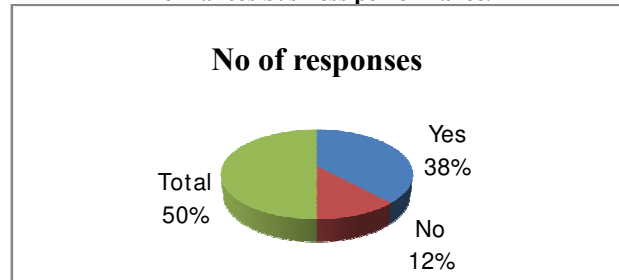
Table 7: Chart Ten Certainty to adopt e-Commerce in their business



Source: field survey

Most of SMEs are of the opinion of adopting e-Commerce into their businesses with about 43% while 6% decline this claim rather preferring the traditional face to face commercial transactions.

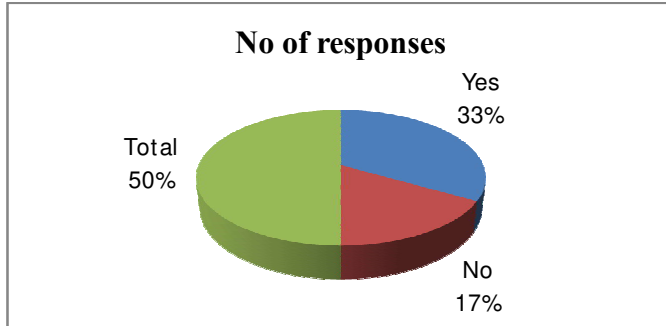
Table 8: Chart Eleven Agreement to e-Commerce adoption enhances business performance.



Source: field survey

This chart demonstrates that 38 % of the respondents assert that e-Commerce adoption enhances business performance overweighing the contrary view of not enhancing business performance with 12% of respondents.

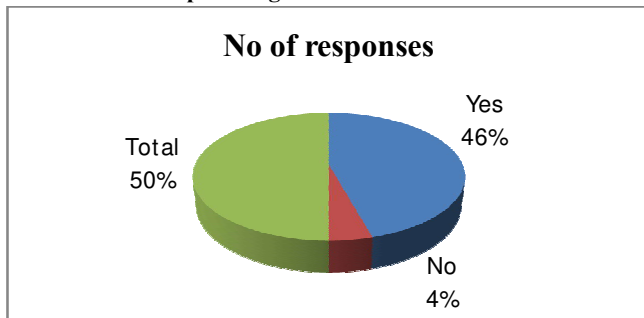
Table 9: Chart Twelve Conversant to e-Commerce technologies i.e. ATM cards, (POS) Point of sales, Cell phone, Internet and Computer.



Source: field survey

The expression of the above chart entails that 33% of the respondents agreed that they are acquainted with e-Commerce technologies as compared to 17% of the respondents declined the assertion; possibly due to lack of much computer acquaintance in the larger Nigerian populace.

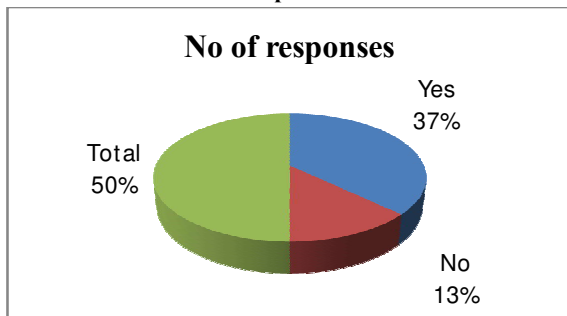
Table 10: Chart Thirteen Internet access reduces client's patronage to e-Commerce.



Source: field survey

This chart suggests higher percentage of respondents with about 46% in harmony to internet reduces e-Commerce patronage as 4% are of not of the view of internet complexity on e-Commerce systems.

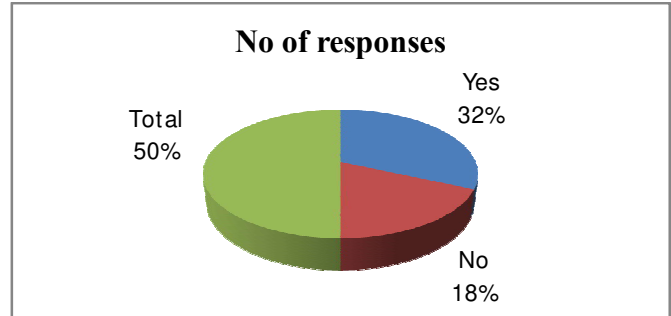
Table 11: Chart Fourteen e-Commerce provides opportunity for Businesses/SMEs to reaching global markets with their products.



Source: field survey

On this chart majority of the respondents illustrate agreement with about 37% that e-Commerce provides opportunity for Business/SMEs to reaching global market while 13% were neutral to the idea.

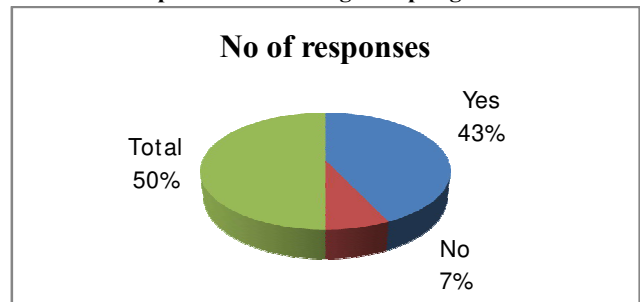
Table 12: Chart Fifteen Confidence in the survival and effectiveness of e-Commerce in Nigerian businesses.



Source: field survey

On this chart majority of the respondents are optimistic to the fact that e-Commerce is here to stay despite its current challenges with about 32% as 18% of the respondents are not aligned to the idea.

Table 13: Chart Sixteen Businesses highly experience great customer penetration through adopting e-Commerce



Source: field survey

Businesses seems to agree with the idea that e-Commerce facilitate customers penetration with a percentage ratio of about Businesses 43% as other Businesses thought otherwise to the claim with about 7 % disagreement.

4.3 Summary of findings

4.3.1 Analysis of the Research Hypotheses

4.3.1.1 Hypothesis One

H_0 E-Commerce adoptions do enhance business performance.

H_1 E-Commerce adoptions do not enhance business performance.

This hypothesis is a reference to question No 7 of the dispensed questionnaire, Demonstrated that 38 % of the respondents assert that e-Commerce adoption enhances business performance over weights the contrary view of not enhancing business performance with 12% of the respondents.

The respondents of this hypothetical statement conceptually harmonized the upholding claim that e-Commerce adoption enhances business performance because various online e-

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transactions access facilitate and boost organisational sales and marketing activities and thereby yields profitability.

4.3.1.2 Decision:

This outstanding ratio of (38) % ideally complements the (H₀) null hypothesis as being correct and accepted

4.3.1.3 Hypothesis Two

H₀ Businesses do highly experience great customer penetration in e-Commerce adoption.

H₁ Business do not highly experience great customer penetration in e-Commerce adoption.

Analyzing this hypothesis from question No 9 as a reference from the questionnaire dispensed, had respondents view of 43 % advocating that firms do actually experience great customer penetration in adopting e-Commerce in their businesses because customer access their services from distance irrespective of time and places, in that 7% of the respondents declined the claim and this statement unconditionally favours the (H₀) null hypothesis with a considerable ratio of 43%.

4.3.1.4 Decision:

About 43 % of the respondents agreed to the fact that Firms do experience great customer penetration in adopting e-Commerce, this theoretically also concurs with the (H₀) null hypothesis as being correctly right and accepted.

Convincingly, e-Commerce is resulting to great revolution in transforming the traditional face to face buying and selling especially through E-banking systems.

5.0 CONCLUSION & RECOMMENDATION

5.1 Conclusion

E-Commerce activity in Nigeria is steadily growing as a result of vast improvements in telecommunication services. And e-Banking is one area of e-Commerce that has proven successful in Nigeria. Nigerian banks are increasingly seeking to provide general banking facilities online. Internet banking is slowly and steadily gaining ground, banks have set up websites which publish corporate information and allow customers to carry out some form of transaction.

Big internet companies are setting the pace for internet business in Nigeria. Without a flicker of doubt, the business of e-Commerce has come to stay in Nigeria. The internet business is taking on a serious dimension in the country especially within the more commercial states of the nation. A lot of startups are springing up within the cyber space and each one is targeting the over 40 million internet users in the country.

5.2 Recommendations

Consumer attitude to e-Commerce goes a long way in determining its survival and sustainability in developing markets and economy at large. Andrew Groves (1983) observed that "In the future, all companies will be internet companies". In this framework, e-Commerce symbolizes the future and the future is here now. E-Commerce digital platforms are taking over business transactions. Kinder (2002) "Businesses will be e-Commerce, or no business at all", said Tony Blair in a memorable speech aimed to enthuse or scare the business world to pay attention and join the fray of e-

Commerce. Among others the following are recommended for the sustenance of e-Commerce survival in Nigerian Businesses:

1. Adequate attention should be paid to risks and security, which is a major issue why consumers shy away from using e-Commerce in general.
2. Collaborations between organizations through infrastructural sharing, joint negotiation is vital to cut down on deploring cost which will in turn reduce cost on the consumer end, So that consumer may demand for e-Commerce services.
3. An elaborate e-Commerce legal frame work should be established by the Nigerian legislatures in order to buy the confidence of e-Commerce users.
4. E-Commerce strategy should be crafted around mobile platforms in order to achieve a good mile-age in the interim and a substantial level of market penetration in Nigeria.
5. Government should invest in training and other enlightenment programs that are very vital to attitudinal changes of consumers to e-Commerce transactions in Nigerian markets.

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