

# Benefits of Electronic Commerce Technology Adoption among Small and Medium Sized Enterprises in Nigeria

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*Abstract— Though, Nigeria has a very huge population and it's potentially a very lucrative market for electronic commerce (e-commerce) services. Notwithstanding the substantial number of the populace who has access to the internet, not many of the small and medium sized enterprises (SMEs) adopt e-commerce in conducting their day to day business operations. This study explored the benefits of e-commerce technology adoption among SMEs in Nigeria. A semi-structured interview guide was used to collect data from 25 SMEs owners in Maiduguri city, Nigeria. Recorded data were transcribed verbatim, coded and manually analysed through thematic and content analysis technique. The authors reported that the three categories of people who benefit from e-commerce adoption in Nigeria are the entrepreneurs himself, the customers and the organization. The findings are presented in the perspectives of the entrepreneurs as regards how business owners, customers and organizations benefit from e-commerce technology adoption in the day to day operations of small and medium sized enterprises. This study recommended that future authors could extend the data collection to customers in order to compare their perspectives to that provided by the entrepreneurs or business owners.*

**Keyword—** Electronic Commerce, Small and Medium Sized Firms, Perceived Benefits, Technology Adoption, Nigeria.

## 1 INTRODUCTION

This article commenced with a background discussion concerning the research area. The background of the study consisted of a brief literature review of the concept of small and medium sized enterprises (SMEs), the concept of electronic commerce technology, and importance of e-commerce technology among SMEs. The next section presented the methodology for the study, the analysis of demographic profile, interview analysis and discussion, and conclusion of the study.

### 1. BACKGROUND OF THE STUDY

Small and medium sized enterprise (SME) is an economic coinage that has been defined in various forms and shapes. However, the quantitative perspective of SMEs has been based mainly on the turnover or assets and number of employees. Nonetheless, the qualitative opinion depend on how the firm is integrated (Hajiha et al., 2010; Hajli and Bugshan, 2012; Bilau et al., 2015a; Bilau et al., 2015b; Bilau et al., 2015c). Hence, empirical research has exposed some definitions including government agencies. The Small Business Administration in America cited in Saffu et al. (2012) based their definition on section 3 of the Small Business Act of 1953. The act defined an SME as one that is independently owned and operated and which is not dominant in its field of operation. Authors in United Kingdom took a more quantitative strategy, describing the concept as: having less than 50 personnels and is not a subsidiary of any other organization. In addition, few other authors described an SME as: one in which one or two persons are required to make all of the critical

decisions without the aid of internal specialists and with owners only having specific knowledge in one or two functional areas of management (Turban et al., 2010; Hajli and Bugshan, 2012). Not only do the definitions of SME vary, but there are wide ranging views on the characteristics of SMEs in various countries and contexts (Cragg et al., 2011; Ghobakhloo et al., 2011). Nonetheless, Ghobakhloo et al. (2011) concluded that SMEs are not 'small large businesses' but are a separate and distinct group of organizations compared to large businesses. Agwu and Murray (2015) reported that SMEs today, represent about 90% of firms in the Nigerian industrial sector on numerical basis. Saffu et al. (2012) stressed that to remain competitive at the international arena, firms today must prepare themselves and their employees to function successfully in a knowledge-based economy (Ajagbe, 2014). However, information technology (IT) was suggested as an important instrument in meeting that challenge. Oluyinka et al. (2014) suggested that by accelerating their ability to master IT, SME owners will enable themselves and their employees to compete successfully in today's global knowledge economy. Electronic commerce (EC) has been defined in several ways depending on the context and objective of the study. Jamali et al. (2015) perceived e-commerce in SMEs as the utilization of ICT and applications to support business activities. The authors elaborated the definition where they refer e-commerce as a set of technology that is utilized to support online business transactions between the organizations and their direct end customers and between the organizations and others within their business network(s). Turban et al. (2010) provided a more specific definition where they stated that "e-commerce is the

process of buying, selling, transferring, or exchanging products, services and/or information using computer networks mostly the Internet and Intranets." Gomez (2012) argued that e-commerce is useful for SMEs because they play a vital role in shaping the future economy and even considered as the backbone of industrial development of any nation. The SME sector has a huge potential not only to promote domestic-led growth but also to strengthen the infrastructure in the country. Moreover, in this new competitive e-environment, SMEs need to adopt innovative and informed e-marketing strategies to remain distinct, profitable and succeed in domestic and international markets.

The realization of the importance of ICT adoption in SMEs has motivated many countries to spend more on ICT solutions and awareness programs in order to gain the promised benefits (Gomez, 2012; Abiso and Ajagbe, 2018). Researchers have discussed adoption of internet and e-business by SMEs in the developed countries (Solomon and Ajagbe, 2014). However, there are limited studies discussing ICT adoption in developing countries. Despite the importance of ICT and the emphasis laid by various governments to encourage its adoption, SMEs have been slow in taking it up for various reasons. One of the reasons may be the perceptions that the benefits of ICT implementation may not outweigh the cost. Dixon (2010) revealed that Malaysian SMEs were slow in the adoption of internet-based ICT due to their perceived lack of necessity for their businesses and also due to financial constraints. Gomez (2012) examined the relationships between use of ICT, the benefits a firm derives from membership in a rural business cluster and the success of rural companies.

Agwu and Murray (2015) stressed that a well articulated e-commerce within an organisation often facilitates growth and expansion. Awiagah et al. (2015) however stated that the application and use of e-commerce in developing countries can lead to substantial savings in communication costs, marketing, advertising, as well as production processes and the delivery of goods and services to various parts of the globe. MacGregor (2010) further stressed that the possibility of shopping online from anywhere is the most obvious and most commonly cited advantage of e-commerce, and was found to be the most important perceived consumer benefits of internet shopping. Saffu et al. (2012) in the submissions argued that since the boundaries of e-commerce are not defined by geographical or national borders, consumers will benefit from a wide selection of vendors and products, including a wider availability of hard-to-find products. Thus, the objective of this research is to explore the perceived benefits of adoption of e-commerce technology among small and medium sized enterprises in Nigeria. Hence, the main research question of this study is: how beneficial is the adoption of e-commerce technology among small and medium sized enterprises in Nigeria?

### 3 METHODOLOGY

The qualitative research paradigm was chosen for this study because a review of the literature indicated a need for a better understanding of the experience of owners of

SMEs in Nigeria who have used e-commerce technology in their day to day business operations (Ajagbe, 2014; Ajagbe, et al., 2015; Abiso, 2017). This study employs purposeful sampling and the case study as a reporting mechanism. The researchers used the organisational unit of analysis to measure the selected sample population for the study. The triangulation technique was used by collecting data with the use of multiple approaches. This study followed an inductive qualitative approach, and consisted of an average of 67 minutes interviews with about 25 participants from selected SMEs in Maiduguri city, Nigeria which have high rates of internet penetration. The respondents are SMEs owners who have adopted electronic commerce technology in their business operations.

Initial data was coded to indicate the concept or dimension it represents, and the researcher linked concepts together into a theory, or explanation of the phenomenon studied. Tesch (1990) posited that analyzing qualitative data requires understanding how to make sense of text and images so that you can form answers to your research questions. Creswell (2007) opined that qualitative research is an interpretative research, in which you make a personal assessment as to a description that fits the situation or themes that capture the major categories of information. The interpretation that you make of a transcript, for example, differs from that someone else makes. This does not mean that your interpretation is better or more accurate; it simply means that you bring your own perspective to your interpretation (Taylor et al., 2006). For the purpose of this analysis, the researcher used both "in vivo codes and lean codes" because it was sometimes discovered to be necessary to use the codes exactly the same way the participants mentioned during the interview, while other situations warrants the researcher to rephrase the words in his own words. Table 1 showed the result of the coding process.

**Table 1:** Result of the coding process

Major Emerging Code	Sub-Codes	Coding Categories
Benefits of E-Commerce	2 Sub-Codes	112 Codes
<b>Main Code</b>	<b>2 Sub-Codes</b>	<b>112 Codes</b>

### 4 ANALYSIS OF DEMOGRAPHIC PROFILE

Analysis of the gender profile revealed that 06(24%) among 25 respondents are females while 19(76%) among 25 respondents are males. This is an indication that majority of the respondents interviewed are males. It could also mean that more males are involved in trading activities in northern part of Nigeria.

Analysis of the educational profile revealed that 01(4%) among 25 respondents are master degree graduate, 09(36%) among 25 respondents have bachelor degree, 08(32%) among 25 respondents have OND/NCE and 07(28%) among 25 respondents have SSCE/PSLC. This indicates that majority of the respondents have requisite level of education to participate in the interview.

Analysis of the SMEs surveyed revealed that supermarkets consisting of 9 participants and represents 36% of the participants of the study, restaurants consisting of 10 participants represents 40% of the participants of the study, boutique consisting of 4 participants represents 16% of the participants of the study and furniture consisting of 2 participants represents 8% of the total participants interviewed for the study.

**5 INTERVIEW ANALYSIS AND DISCUSSION**

**5.1 Emerging Themes from the Study**

**5.1.1 Benefits of Adoption of E-Commerce as an Entrepreneur**

Saffu et al. (2012) argued that SMEs have actively searched for methods that are suitable to adopt and integrate e-commerce into their business processes. The authors suggested the benefits of e-commerce implementation are; increased sales, improved profitability, increased productivity, reduced costs associated with inventory, procurement and distribution, improving the quality of service, and guarantee competitive position. This statement compliments the result of this study about the need to understand the benefits of adopting e-commerce technology by SME owners. Analysis of interview transcript revealed that they benefits of adopting e-commerce technology by SMEs include; reduction of stress, less time consuming, it help in reducing the movement of money from one location to another, makes business transaction less cumbersome for the participants. This enhances customers’ satisfaction as business funds are secured and proper accountability is encouraged. Respondent 12 who is an SME owner mentioned that:

*“I am glad that we invested in E-Commerce because it makes it easy for me to oversee my business from afar and monitor other branches without been physically present. It makes work easy for our employees and also helps in smooth running of our business activities”*

In addition, Ghobakhloo et al. (2011) examined the adoption of e-commerce by SMEs and found that SMEs could gain competitive advantage through adopting e-commerce as it could improve their market performance by having better access to the market. Oluyinka et al. (2014) found among other issues that SMEs markets needed a high degree of human interaction.

**5.1.2 Benefits of Adoption of E-Commerce as a Customer**

Thus, interview analysis indicated that they benefits of adopting e-commerce technology by customers of small and medium sized enterprises include; It makes their transaction or buying easy, It reduces stress of going to bank, It makes the business customer friendly, they enjoy cashless system of payment, customers feel comfortable with service and product delivery. However, in line with the current findings, MacGregor (2010) stressed that the possibility of shopping online from anywhere is the most obvious and most commonly cited advantage of e-commerce, and was found to be the most important perceived consumer benefits of internet shopping. Saffu et al. (2012) in their submissions argued that since the boundaries of e-commerce are not defined by geographical

or national borders, consumers will benefit from a wide selection of vendors and products, including a wider availability of hard-to-find products. According to respondent 15 who is an owner of a supermarket stressed that:

*“electronic commerce makes it less stressful and less cumbersome for his customers to shop for goods and services because they can make payment at the comfort of their home and receive goods within a short period of time”.*

**5.1.3 Benefits of Adoption of Electronic Commerce as an Organization**

In this study, findings from analysed interview transcript revealed that to a great extent introduction of e-commerce enhances positive business operations. It increases the rate of customer participation, provides suitable environment for competition, increase in income and enhances ease of work. In addition, electronic commerce increases the rate of customer patronage, it improves efficiency of doing business and enhances ease of work processes on the side of the employees. Thus, one of the respondents who is an owner of a furniture outlet stressed that;

*“adoption of e-commerce technology bring the following benefits to the firm; enhances production and product delivery, internationalisation, increase in income and ease of work, increases the number of customers to the firm, reduces the movement of cash both from customer and organization (RES 4)”.*

The findings from this research is consistent with previous findings from Agwu and Murray (2015), who stressed that a well articulated e-commerce within an organization often facilitates growth and expansion. Awiagah et al. (2015) however stated that the application and use of e-commerce in developing countries can lead to substantial savings in communication costs, marketing, advertising, as well as production processes and the delivery of goods and services to various parts of the globe.

Category of Responses	No of Responses	%age of Responses
Yes, Beneficial	22	88
No, don't think so	03	12
	25	100

**Table 2: Benefits of Adoption of E-Commerce**

However, from table 2 above, analysis of interview transcript indicated that 22(88%) among 25 respondents mentioned that they use of e-commerce is beneficial to their organizations, whereas 03(12%) among 25 respondents do not think that adopting internet technology is beneficial to their business operation. Table 2 showed responses from participants who believed that adoption of e-commerce is beneficial to SMEs as it emerged from the coded interview transcript.

**6 CONCLUSION**

The aim of this study was to find out the benefits of e-

commerce adoption among SMEs in Nigeria. This study reported that the three categories of people who benefit from e-commerce adoption in Nigeria are the entrepreneurs himself, the customers and the organization. In this, study the entrepreneurs revealed that they have benefited; through increased sales, improved profitability, increased productivity, reduced costs associated with inventory, procurement and distribution, improving the quality of service, product and service awareness, and guarantee competitive position. However, from the perspective of the business owners, their customers have also benefited from e-commerce technology adoption because: it makes transaction or buying easy, reduces the stress of going to bank, enjoy cashless system of buying, customers can make their choice online, comfortability with product delivery. From the perspective of the business owners, their organization has benefitted from adopting e-commerce technology in areas of: increased business expansion, enhanced profitability, internationalization of business operations, strong competitive advantage, improved organization image and integrity. This study recommended that future authors could extend the data collection to customers and SME managers in order to compare their perspectives to that provided by the entrepreneurs or business owners. Also themes that have emerged from this study could be quantitatively tested to determine the generalizability of findings from this study.

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