

E- Commerce as A Vehicle Towards Sustainable National Development in Nigeria: Prospects and Challenges

Muqsitat Motunrayo Ojedokun

Africa Regional Centre for Information Science (ARCIS), University of Ibadan, Nigeria

mmojedokun@gmail.com

Abstract

The emergence of Information and Communication Technology (ICT) has created a lot of opportunities for its end users, globally. However, despite the recognized embedded benefits of e-commerce, its utilization for sustainable national development in Nigeria is still largely low. On this basis, this paper discusses the prospect of e-commerce as a vehicle towards sustainable national development in Nigeria, and the challenges militating against its adequate adoption. The Diffusion of Innovation Theory was employed as conceptual framework. The paper argues that e-commerce can contribute in multiple ways to the actualization of the Nigeria's drive towards the attainment of sustainable national development through the improvement of the Nigerian banking sector, the promotion of indigenous entrepreneurship, increase in foreign exchange, and the development of small and medium scale businesses. However, despite its embedded advantages, digital divide, illiteracy, skepticism/distrust, fear of cybercrime exposure and poor access to relevant information are among the major challenges militating against the successful adoption of electronic commerce in Nigeria. The Nigerian Government should exert more efforts towards effective domestication of E-commerce because it is capable of contributing significantly to the successful actualization of the nation's vision 2020 plan and the attainment of its sustainable development goals.

Keywords: E-Commerce, Sustainable National Development, ICT, Nigeria

1.0 Introduction

The level of Information and Communication Technology (ICT) utilization particularly, the Internet has influenced at an exponential rate, online interaction and communication among the generality of the populace Ayo [5]. ICT is increasingly becoming the dominant factor and platform for business transactions. The E-commerce and Development Report indicates that enterprises in developing countries that are or plan to be involved in international trade need to start incorporating ICT and the Internet into their business models in order to stay competitive UNCTAD [40, 41]. However, despite the numerous embedded benefits of e-commerce, the utilization of this important ICT resource for sustainable national development in Nigeria is still largely low. Sustainable development essentially connotes the efficient management of resources for human survival taking into consideration both the present and future generations Lele [16]. It leads to the fulfilment of societal ideals considered relevant to the needs and aspirations of the society Nwabueze & Ozioko [25]. The major factors influencing such developments are based on human ability to explore, invent, and utilize. Satisfaction of spiritual, physical and material needs and the mastery of the environment are parameters of development when applied to the human society Nwabueze & Ozioko [25]. According to the United Nations Development Programme [42], sustainable development goals comprises 17 goals which include: no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry innovation and infrastructure, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions as well as partnerships for the goals.

In Nigeria, some factors are constituting obstacles to the achievement of sustainable development goals (SDGs). Such factors include youth and graduate unemployment, high rate of poverty, lack of good governance, high level of corruption and indiscipline, low economic growth and developments, mono-economic base of the country as well as over dependence on foreign goods and technology Mimiko [18]. For instance, the prime

concerns of governments and individuals are often momentary and the major concern is meeting the basic needs of population today. However, it has been widely known that the development of any nation substantially depends on the growth and application of science and technology Nwabueze & Ozioko [25]. Information Communication Technology (ICT) is the engine of the 21st century and beyond; as it will chart the economic, religious, cultural, legal and social life of nations, particularly that of developing countries. More so, ICT has impacted the Nigerian system positively, particularly the e-commerce, by promoting businesses in the economy which in turn leads to growth for sustainable development in the country Ukodie, [39]. Indeed, as recently reported on Channels Television, e-commerce has contributed greatly to the growth of the Nigeria economy by enhancing the productivity and improving efficiency of small and medium scale entrepreneurs as well as private and public sectors business enterprises Channels Television [8].

Although it is expected that the number of people harnessing e-commerce will increase in Nigeria because of the services it possesses over the traditional market, however it is yet to be widely adopted Ayo, Adewoye, & Oni [6]. Many Nigerians still treat the utilisation of e-commerce with deep scepticism. Consequently, this important ICT resource is currently under-utilised for the actualisation of Nigeria's drive towards sustainable development goals. In view of this, the central focus of this paper was to examine the prospects and challenges of e-commerce towards achieving sustainable national development in Nigeria.

1.1 Diffusion of Innovation Theory

The diffusion of innovation theory was adopted as the theoretical guide for this paper. This theory was developed by E.M. Rogers in 1962. It explains "the process by which an innovation is communicated through certain channels over time among the members of a social system" Rogers [33]. According to diffusion of innovation theory, the diffusion process consists of four key elements: innovation, the social system which the innovation affects, the communication channels of that social system, and time. The theory posits that innovations are not adopted by all individuals in a social system at the same time. Rather, people tend to adopt in a time sequence, and can be classified into adopter categories based upon how long it takes for them to begin using the new idea. The theory opines that it is very useful for a change agent to be able to identify which category certain individuals belong to, since the short-term goal of most change agents is to facilitate the adoption of an innovation. Therefore, the adoption of a new idea is caused by human interaction through interpersonal networks. If the initial adopter of an innovation discusses it with two members of a given social system, and these two become adopters who pass the innovation along to two peers, and so on, the resulting distribution follows a binomial expansion Rogers [32].

Rogers [33] identified several attributes of an innovation that are key influences on adoption behaviour to include: relative advantage (the degree to which an innovation is perceived as providing more benefits than its predecessor), complexity (the extent to which an innovation can be considered relatively difficult to understand and use), compatibility (the degree to which a service is perceived as consistent with users' existing values, beliefs, habits and present and previous experiences), trialability (the capacity to experiment with new technology before adoption), and observability (the extent to which an innovation is visible to the members of a social system, and the benefits can be easily observed and communicated). With reference to Nigeria, e-commerce has gained marginal acceptance. The perceived relative advantage, complexity, compatibility, observability as well as the perceived risk associated with e-commerce are important determinants influencing the extent of its acceptance among Nigerians.

2.0 E-Commerce Utilization in Developing Countries

According to the International Telecommunication Union [13], there were 2.7 billion users of Internet worldwide in 2013 which indicates that at least four in ten people utilize e-commerce from different locations theoretically. However, there is a big gap between developed and least developing countries in the aspect of web facilities that facilitate the acceptance and processing of orders which is vital for secured and faster trading.

E-commerce is increasingly contributing towards economic development in several developed countries like United States, Canada, Australia, and the United Kingdom (Adam, Mulye, Deans, & Palihawadana [1]. For instance, it was found that from 1997 to 2000, the value of sales from e-commerce increased from less than \$20 billion to nearly \$300 billion. According to Tan & Ouyang [38] widened sales area, improved competitive position, and improved customer service were the noteworthy benefits of e-commerce utilization in China. While the impacts on internal process efficiency and decreased procurement costs are less significant as noted. This suggests that online business has affected sales more than efficiency in China Tan & Ouyang [38]. More so, enhancing presence in the international business arena, strengthening business processes channels, and forming better customer relationships were the submission of Stylianou, Robbins and Jackson [37] with regard to the benefits of e-commerce in China. Nonetheless, it was noted that despite these achievements the country is still struggling with realising the full potential of e-commerce due to some factors such as payment systems, inadequate telecommunication as well as state restrictions. Furthermore, in Latin America, there was massive growth in e-commerce, as revenues rose from 1.6 billion USD to 43 billion USD in the last ten years Hussain [12]. Another developing country which is displaying rapid progress in e-commerce is India. While the sector may still be in its infancy stage, research showed that there was increment from 3.8 billion USD in 2009 to 12.6 billion USD in 2013. The lion's share of this market which is roughly 70% is held by online travel though e-retail is the fastest-growing segment PwCPL [30]

Moreover, Ngampathanakul and Pilling [22] reported that the increased internal efficiency and improved customer service were the most common benefits of e-commerce adoption and use by small and medium scale entrepreneurs (SMEs) in Thailand. In addition, it was reported that 33.3% have used the Internet service for personal purposes only, and not for business operations despite the various incentives and grants provided by the government to promote the uptake of e-commerce. This low adoption was due to lack of trust issue as well as technical know-how Sin Tan, Choy Chong, Lin, & Cyril Eze [36]. Also, gender-digital divides has been established as one of the problems faced by women who are entrepreneurs selling different items but find it difficult to digitize their businesses due to lack of technical know-how in many developing and developed countries, rural and urban areas, among others UNCTAD [41].

In Europe, 70% of people now engage in e-commerce for buying of goods and services. However, such percentage goes down to 2% for least developed countries (LDCs) as broadband cost is extremely high and the internet connection is often poor especially in the small islands states UNCTAD [41]. Furthermore, the findings of Nielsen's Global Survey of E-Commerce show that more than 58% of Malaysian consumers had purchased a product or service online Nielsen Holdings [23]. It is also interesting to note that Malaysians spent the majority of their online retail purchases worth RM825million on local websites (45%) compared to 35% on overseas websites. This implies that local merchants, particularly SMEs, can take advantage of this growing market by providing quality products and services through online channels by Nielsen Holdings [23]. Finally, literature has shown that e-commerce is thriving globally. However, entrepreneurs and start-up businesses cannot upload or sell applications they have developed, as the seller option to receive cross-border payments is not always available UNCTAD [41].

3.0 E-commerce Utilization in Nigeria

ICT resources such as the Internet and the World Wide Web have been recognised to be the back-bone of today's global marketplace. Since their inception, these technological innovations have dramatically reinvented, and continue to shape, human society's ability to conduct and extend business transactions between and among organizations and individuals. Such is manifested in what we know today as electronic commerce or e-commerce by Laudon and Traver [14]. Indeed, the growth of information and communications technologies (ICT) has unlocked the global approaches to techno-economic revolution. There is evidence to suggest that ICT enables e-commerce to achieve rapid and sustainable improvements in people's lives According to Bui et al, Molla and Heeks, Montealegre, Qureshi and Davis [7, 19,20,31]. E-commerce, essentially involves the use of the Internet for marketing, identification, payment and delivery of goods and services. Through this platform, the Internet has revolutionized the mode of business transactions by providing consumers with the ability to bank, invest,

purchase, distribute, communicate, explore, and research from virtually anywhere, anytime where there is Internet access Anup [4].

In Nigeria, different websites and social media platforms are emerging for the purpose of facilitating e-commerce as a way of providing different services for prospective entrepreneurs and customers online. The social media platforms use for online commerce includes Facebook, WhatsApp, Instagram etc. Also, some of the popular websites in Nigeria for e-commerce include Konga, Jumia Nigeria, SME market hub, Dealdey, Yudala, Slot, Payporte, Vconnect, Kili mall Ali.express, Olx, JiJi.Nigeria, Kara, Obeezi, Mobo Free amongst others.

Similarly, electronic banking that was recently introduced into the Nigerian banking sector is another mode of e-commerce. E-banking emerged as a result of the Structural Adjustment Programme (SAP) introduced by the administration of General Ibrahim Badamosi Babangida in 1986 which involves getting loans from International Monetary Fund (IMF) and World Bank. As a result of SAP, the policies and the structure of the Nigerian banking sector changed. The number of banks increased from 40 in 1985 to 125 in 1991. The teeming number of banks led to stiffer competition and aggressive marketing strategies were utilized which one of it is electronic banking. Commercial banks became better informed on the importance of electronic banking in Nigeria; and the forms of available e-banking include ATM, mobile banking, electronic bill payments, POS and electronic cheque Vinne [43].

Additionally, the provision of transportation services in the transportation sector such as Uber, *Alakowe*, Taxify etc. represents another mode of e-commerce available in Nigeria. According to the Nigerian Law Today [24], with about 60 million Nigerians now enjoying access to the internet, the e-market in Nigeria is bound to get even bigger, because many people are embracing e-commerce as their preferred platform for buying and selling of goods and services. Indeed, about 300,000 online orders are made every 24 hours in Nigeria by Nigerian Law Today [24]. E-Platforms will continue to grow with business, technology, and leisure. E-commerce is evolving rapidly in Nigeria. Research has shown that Nigeria remains Africa's largest mobile market, with about 162 million subscribers and a penetration rate of 84 per cent. However, the number of subscribers fell in 2017 as consumers responded to a poor economic climate, adopted other OTT channels for voice and data services, and as regulatory measures continued to oblige operators to disconnect unregistered SIM cards Akwaja [2]. Also, according to a July 2014 report of the Business Advisory Division of Phillips Consulting Limited, online shopping in Nigeria increased from N49.9billion in 2010 to N78 billion in 2012 People's Daily [29]. Indeed, one of the popular e-commerce websites utilised in Nigeria named 'Jumia' estimates that the country's e-commerce market is worth \$13 billion this year. This remarkable achievement indicates a gradual adoption of online marketplace by consumers Akwaja [2].

4.0 Prospects of E-Commerce as a Vehicle for Sustainable National Development in Nigeria

E-commerce holds many potential benefits which can galvanise the Nigeria's drive towards the attainment of sustainable national development. The benefits associated with large scale adoption of e-commerce are in manifold. First, E-commerce adoption by small, medium and large-scale enterprises helps in achieving decrement in the cost of transactions, which in turn promotes online transaction. This facilitates easy purchase and delivery of goods and services by creating linkages between buyers and sellers or shortens the marketing channels. There are numerous goods and services available online for patronage which buyers can select their choice. According to Shahjee [35] e-commerce connects and enables people in developing countries and rural areas to enjoy and access products, services, information and other people which otherwise would not be so easily available to them. This identified benefit of e-commerce will contribute significantly to the drive of Nigeria towards achieving the goal three (3) of sustainable development goals which is set to achieve good health and wellbeing for all at all ages by 2030. For instance, the Jumia website offers buyers the opportunity to buy different varieties of product ranging from healthcare products to electronic gadgets, beauty products, clothing and accessories and so on. Patients who do not have the strength of going to the pharmacy to purchase prescribed medicines available in the local market can order same at electronic stores which will be promptly delivered to

them in their abode. Also, online consultation with medical personnel such as doctors, nurses, paediatricians amongst others by patients constitutes another major benefit of e-commerce.

Second, with the full adoption of e-commerce, Nigerians will become more conversant with available electronic physical exercise device which can help in attaining physical wellbeing. Moreover, international online commercial sites such as Amazon.com and eBay provide opportunity for online procurement of different academic materials especially electronic book from which students, academics and other concerned stakeholders can purchase desired academic materials that are not readily available in the country. This will help in achieving quality education and also helps in broadening peoples' horizons. This potential benefit embedded in e-commerce utilisation will also contribute significantly towards achieving sustainable national development goal four (4) objectives which is set to ensure inclusive and equitable quality education and promote lifelong learning for all by 2030. Indeed, Internet and e-commerce are essential part of the development process.

Moreover, e-commerce helps buyers to purchase products at best prices. By enabling buyers to know the exact price commodities are being sold at a particular period of time and purchase items from sites which offered products at cheaper rates. This enables entrepreneurs to have more successful businesses by saving more money and using it to invest in other things. This is in tandem with Shahjee [35] who opines that customers can 'shop' around the world and conduct comparisons either directly by visiting different sites, or by visiting a single site where prices are aggregated from a number of providers and compared. In addition, Omololu [28] equally opined that e-commerce stores are known to offer goods and services that are equal in price and sometimes even cheaper than those found in traditional stores essentially, e-commerce stores are now contributing to the democratization of prices in Nigeria.

Furthermore, online training is another advantage of e-commerce in Nigeria. Numerous well-established entrepreneurs now offer the opportunity of training upcoming entrepreneurs on skills and methods through which they can achieve the growth and development of their businesses. This step will not only increase the number of youth and adults who have relevant skills for employment, decent jobs and entrepreneurship, but also online training will support productive activities, decent job creation, and entrepreneurship and encourage growth of micro, small and medium scale enterprises. This is the mission of the sustainable development goals four and eight. UNCTAD [41] also affirms that e-commerce are essential for the attainment of sustainable development goals, particularly in the area of small and medium scale enterprises competition with bitter groups, as classical business barriers can be broken down and can also be leveraged upon to promote entrepreneurship.

Similarly, e-commerce broadens the horizon of entrepreneurs as well as prospective entrepreneurs by connecting them to people as well as exposing them to other businesses they can engage in. This helps in creating awareness to people on the numerous goods and services available in the country and all over. It motivates sellers because they now have the opportunities to reach large number of customers/audiences in a twinkle of an eye without having to pay for advertisement on radio, television and paper. Moreover, it encourages more people to go into business line because there are varieties of good one can buy and resell online which further helps in the development of the economy which in turn will lead to sustainable national development. This addresses goals number 1 and 5 of sustainable development which is to end poverty by 2030 and to enhance the use of enabling technologies. According to Ngai and Wat [21] through using e-commerce, companies are able to connect with their trading partners for "just in time production" and "just in time delivery", which improves their competitiveness globally. Also, e-commerce provides international market place for business. What used to be a single physical market place located in a geographical area has now become a borderless market place including national and international markets. By becoming e-commerce enabled, businesses now have access to people all around the world Shahjee [35]. Entrepreneurs do not need infrastructure asset or repository for harnessing e-commerce. The vital requirement needed for successful e-commerce is an efficient and effective websites design and utilization of different social media platforms for the advertisement of available goods and services and also for business transactions.

In addition, e-commerce is also contributing to the revolutionising of the Nigerian transportation sector. The emergence of corporate taxi services, such as Uber, Taxify, *Alakowe* etc. in the transportation sector is another aspect of e-commerce contribution to sustainable national development in Nigeria. The increasing availability of corporate taxi services providing transportation services by helping to transport commuters who have important schedules to meet up with from one place to another without stress and timely is beneficial in terms of safety, efficiency, and promptness. The service rendered by these corporate transportation service providers is different from those offered by local commercial taxi drivers. Potential passenger makes use of their application on internet enabled phone or computer system to request a ride, and an Uber driver arrives to take passenger to their destination as requested. This is unlike the local taxi which one has to go out to the road before one can get. Also, the corporate taxes are safer because their operation is being monitored online by their respective companies. These companies have their drivers' data, ranging from driver's name, vehicle's plate number, the name of the vehicle's brand, address as well as the details of the time the driver takes the passenger and the delivery time. All these are achieved with the help of ICT tools and services. The emergence of corporate taxi services helps in the achievement of sustainable national development in the area of job creation. It reduces youth unemployment. This is in line with the submission of UNCTAD [41] that ICT has positively transformed the global economy by providing job opportunities. However, UNCTAD [41] also emphasized that government still needs to create a digital environment and encourage activity online as well as ensure inclusive digital environment for all sections of society at large including the less developed countries.

Similarly, the provision of electronic banking system including Automated Teller Machine (ATM) service, mobile banking, electronic bill payments, POS and Electronic cheque with the help of ICT provides opportunity for online services such as payment of bills and utilities like Dstv, Gotv, and electricity, amongst others. Online services also help people to have access to their money without wasting time queuing in the bank. For instance, ATM enables user to withdraw money without going inside banking halls and one can also make money-transfer to another person through it. More so, there are different online banking applications in which can be downloaded on mobile phones to carry out all the said functions of ATM. This invention will help towards achieving the cashless policy of the federal government of Nigeria if it is embraced optimally. With the use of online services, people now have access to their money 24/7 and also enjoy different services because they can subscribe to different kinds of services online at their convenience. This promotes the usage and adoption of ICT services in Nigeria and encourages people to think of better ideas on ways to create or invent similar technology. This can lead to sustainable national development in Nigeria. 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 [4].

5.0 Constraints Associated with E-commerce as a Vehicle for Sustainable National Development in Nigeria

The adoption of e-commerce for business transactions for both sellers and buyers has not been fully tapped into due to different challenges being encountered. One of the challenges associated with the adoption of e-commerce in Nigeria is the issue of peoples' distrust. There is a deep scepticism among Nigerians for the goods and services available online. This category of people believe one cannot have a successful transaction online due to their previous experience of being duped while engaging in online buying and selling. Scamming and duping are rampant on e-commerce services in Nigeria. For instance, some people have paid for goods that were not delivered, while others have bought fake products online. Thus, most people prefer to patronize local markets.

This observation is similar to Gravier, Neirinckx, Chau Ngo, Paquet & Pardo-Ricklin's [10] submission that in e-shops, customers cannot touch the product they desire, they cannot see the product physically, and cannot also enjoy personalized advice from a seller. Moreover, Lim et al. [17] found that culture affects online purchases. Cultures with high uncertainty avoidance shy away from online purchases due to the newness of the market and the inability to physically see products and sellers. Individuals in collectivist cultures may avoid using e-commerce if others are not using it.

More so, the issue of security and privacy are also part of constraints associated with the adoption of e-commerce in Nigeria. For instance, when one buys an item online, one would always have the fear of being exposed to account hacking or identity theft. Also, the non-existent of a clear-cut regulatory mechanism for online transactions is another issue confronting e-commerce adoption in Nigeria. It has been established that though businesses in Nigeria are reported to have online access with opportunity for e-commercial activities, yet customers only access business websites only to source for information but make purchases the traditional way which relates to lack of trust issues Ayo et al [6]. These issues are due to the fact that the online buying and selling are not fully regulated. People make transactions as they like without being checked or monitored by security bodies. This is in line with Anumba and Ruikar [3] who opined that the general barriers to electronic commerce mainly fall into three categories which are lack of trust and reliability, regulatory issues as well as infrastructure issues. Within each of these categories, there are issues that need to be considered for governments, users and consumers alike Goldstein and O'Connor, Lim et al. [9, 17].

Equally, digital divide is another major barrier towards maximum adoption of e-commerce by Nigerians. There is a divide between the haves and the have-nots. For instance, people who have adequate infrastructure have access to e-commerce than people living in remote areas. Those living in remote areas or poor people do not have access to ICT products, services and conduit such as Internet facilities and personal computer. This is in line with Odedra-Straub's [26] study which established that accessing the Web is possible only when telephones and PCs are available, but these technologies are still in very scarce supply. In addition to this problem, Internet access is still very costly – both in absolute terms and relative to per-capita income - in most developing countries. While personal computer prices have fallen dramatically over the last decade, they remain beyond the reach of most individual users and enterprises in developing countries. Odedra-Straub [26] asserts that the need to overcome infrastructural bottlenecks in transport system i.e. for transportation of physical goods between buyer and seller, telecommunications, electronic payment systems, security, standards, skilled workforce and logistics in Nigeria must be addressed, before ecommerce can be considered suitable for developing countries.

Furthermore, poor internet connection in Nigeria is another challenge people face in accessing e-commerce. For instance, it is a common occurrence for internet service to be unavailable at the point of carrying out online services involving the utilization of ATM, POS, internet enabled mobile phone or internet enabled personal computer. Thus, this situation creates problem for users in meeting up with important schedules. This applies to other e-commerce services involving transportation sector services, entrepreneurship, as well as online transaction as highlighted and explained above. Also, Samarajiva [34] asserts that quality (speed and reliability) of Internet connectivity is more influential on e-commerce. According to the Nigerian Law Today [24], if more Nigerians have access to the internet that can positively impact on the e-commerce market. Also, a former Nigerian Minister of Communications Technology, Dr. Omobola Johnson in 2013 stated that the Nigeria's e-commerce market has a potential worth of \$10 billion. According to her, e-commerce market in Nigeria has attracted about \$200 million foreign investment Nigerian Law Today [24].

Additionally, low awareness, ignorance and lack of technical know-how constitute another preventing some people from utilizing e-commerce service. Some Nigerians are not aware of online transactions; hence, they still buy every item in the local markets. Also, there are some who are aware of e-commerce, but do not know how to go about it or even know how to access the service. More so, people who can afford services such as Uber transportation option are not aware of it. Lawrence and Tar [15] have also articulated that lack of government national ICT strategies have created a significant barrier in the adoption and growth of e-commerce in developing countries. Also, the electronic banking system has not been fully tapped into by Nigerians due to these negative factors. Electronic banking is a major pre-requisite for e-commerce implementation, but the Nigerian economy is largely cash-based with over 90% of funds in circulation. Thus, payment for goods and services is mostly by cash due to reasons largely attributed to ignorance, illiteracy and lack of adequate infrastructure to guarantee availability and security of transactions Ojo [27].

6.0 Conclusion

This paper has critically discussed the prospects and challenges of e-commerce as a vehicle for the attainment of sustainable development goals in Nigeria. It revealed that e-commerce services can contribute significantly to the growth and development of Nigeria through online transaction, promotion of indigenous entrepreneurship, creation of job opportunities, promotion of physical wellbeing, increase in foreign exchange, and the development of small and medium scale businesses. However, the major challenges militating against the full adoption of e-commerce as x-rayed in the paper include: digital divide, lack of trust issues, poor unawareness and ignorance as well as lack of technical knowhow regarding the e-commerce services. On this basis, the following recommendations are suggested as a way of promoting the adoption of e-commerce services among Nigerians:

First, it is important for the Federal Government of Nigeria to collaborate with relevant stakeholders towards addressing the problem of high digital divide among Nigerians particularly among the adult population and people living in rural areas. This step if achieved can go a long way in helping to increase the level of ICT utilisation and by extension, the e-commerce among Nigerians. Second, more efforts should be made by the government to tackle the problem of fraud that is pervasive on the Nigerian cyber space. Indeed, if this is achieved, the peoples' level of confidence regarding the utilisation of e-commerce for financial transactions would increase considerably.

Also, it is important for the Nigerian internet architecture and facilities to be improved upon considerably in such a way that the intensity of the broadband as a way of guaranteeing fast and reliable internet access. Indeed, poor internet service is among the major challenges confronting e-commerce utilisation among Nigerians. If this is addressed the intensity will help in the increase of exchanging information and equally helps in attracting new consumers which in turn helps towards achieving sustainable development goals. More so, responsible authorities should authorize more service providers such that subscribers can have alternative choices to the most reliable choices depending on their wants.

Equally, more conscious efforts should be made by the Nigerian Government and relevant stakeholders e.g. Non- government Organisations (NGO) towards promoting the culture of e-commerce adoption among Nigerians by organising trainings, workshops and seminars for prospective entrepreneurs as well as small and medium scale enterprises on ways to have successful business transactions in strategic locations. By exposing them to variety of opportunities they may derive with the full adoption of e-commerce. Also, Government should work towards providing more fair regulatory environment as well as Intellectual property rights such that small and medium scale enterprises can grow especially in the area of huge tax being paid on goods shipped into the country. Finally, Government and other capable individuals should work in the creation of more banks. If this is achieved it will further enhance business transactions, because the more banks available in the country the greater the availability of electronic money which is an essential aspect of e-commerce.

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