



## Smart Connect Systems: A Pathway to Economic Boom in Nigeria

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### Abstract

Poverty is the lack of basic human needs, such as clean water, nutrition, health care, education clothing and shelter, because of the inability to afford them. Nigeria is classified as a poor country and the poverty level in Nigeria is on the increase yearly with no hope of ever breaking free from the grip of extreme poverty. This has been the reason young women prostitute, children of school age hawk, young men deal with drugs and tout in parks, and the elderly and physically challenged beg for food on the streets. The youngsters find a method to get the resources they require to carry out their fundamental duties when the pressure to live up to their expectations becomes too great to bear. This contributes to the reasons crimes like kidnapping, armed robbery, bombing, theft, fraud, child abduction, human trafficking, rape, murder, assassinations, ritual killings, cultism, banditry, terrorism, vandalism of infrastructure, and political violence are too rampant in Nigeria today. The resultant effect of poverty has endangered people's lives and property, obstructs business operations, and deters investors which impacts negatively on the economy of the nation. Therefore, this article explores the technological paths to poverty alleviation and sustainable development of poor Nigerians especially those in the rural areas. The study uses a systematic review methodology to direct its search of the literature across several electronic databases on terms relating to poverty alleviation in Nigeria. Findings show that a Smart Connect Systems (MWS) can lift Nigerians out of poverty especially those in the rural areas thereby reducing insecurity and boosting the economy of Nigeria.

**KEYWORDS:** Development, ICT, Insecurity, Smart Connect, Poverty

### 1. Introduction

Poverty is frequently described in terms of relative value as a social notion. This is because it is a situational problem in which needs fluctuate over time and from one civilization to another or even within the same community. As a result, it becomes extremely difficult to conceptualize what constitutes poverty, who is considered to be poor, and what the fundamental indicators of poverty are in any particular community. This is why we limit our examination of poverty to those basics of living that are relevant to all contemporary civilizations. These include universal access to high-quality education, accessible health care, clean drinking water, hygienic facilities, clothes, food, and housing (Ejike, 2022). However, using these as measures of poverty is insufficient. Because although the poor

have access to all of these in certain civilizations and consequently take them for granted, in others, they are luxury items only a select few can afford. However, Katsina (2013) defines poverty in its widest sense as a condition in which the majority of people in a nation lack access to certain indicators that set their lives apart from those of animals. The author further says that extreme poverty is a condition that "stunts the realization of human potential." Therefore, this article holds that the achievement of these indices results in the realization of human potential. On the other hand, when they are not there, many people struggle to reach their full potential. The dozens of urban slums that crisscross Nigeria, where millions of people live in filthy circumstances without access to drinking water, sanitary facilities, medical care, or cheap education for their children, best demonstrate the extent of poverty in the nation (Jaiyeola and Bayat, 2020). A complete family of 10 or more people lives crammed in a single room due to the appalling housing conditions, with no hope of ever breaking free from the grip of extreme poverty. Another mirror that shows the extent of poverty in Nigeria is the metropolitan streets. Young women prostitute, children of school age hawk, young men deal with drugs and tout in parks, and the elderly and physically challenged beg for food on these streets. The youngsters find a method to get the resources they require to carry out their fundamental duties when the pressure to live up to their expectations becomes too great to bear. This contributes to the reasons crimes like kidnapping, armed robbery, bombing, theft, fraud, child abduction, human trafficking, rape, murder, assassinations, ritual killings, cultism, banditry, terrorism, vandalism of infrastructure, and political violence are too rampant in Nigeria today. Therefore, this article ascertains that Mobile Web System (MWS) is a pathway to poverty alleviation and sustainable development of poor Nigerians especially those in the rural areas.

## **2. Literature Review**

The impact of MWS in promoting businesses, skills, and talents cannot be over-emphasized especially for those living in rural areas. MWS would enable farmers and youths to market their products, skills, and talents across the nation which can probably uplift their income, take away the poverty and enhance their living standard quality. Therefore, it is necessary to assist them by creating an enabling platform and encouraging its use. Most of the literature on Information and Communication Technology (ICT) and poverty alleviation is informational and perceptive. It is simple to locate publications that address how specific ICT usage should, in theory, be beneficial, but few published articles make any attempt to offer recommendations on how to choose and develop projects. When recommendations are offered, they are frequently overly specific and leave out some of the best prospects. Since ICT may facilitate interpersonal and group communication and support sector-based activities including online marketing, education, livelihoods, healthcare, and government, several scholars including Zameer et al. (2020) and Tang (2022) have argued that technology can help alleviate poverty. There are claims that a modern nation cannot develop to the fullest extent possible in the modern world without an effective ICT infrastructure (Oloruntoyin et al., 2013; Malah et al., 2022). This suggests that the increase in ICT infrastructure will have a considerable positive impact on economic development. The study of Holtgrewe (2014) and Li et al. (2019) informs that one innovation replaces another in the ICT sector around the world fairly quickly in just a few weeks. The wireless telephone system, which is available as fixed wireless lines or the worldwide system for mobile communication (GSM), is a breakthrough (Usikalu et al., 2019). The development of the GSM, according to Azubuike and Obiefuna (2014) promotes economic growth since it makes it simple and effective for Nigerians to communicate with their international trading partners. According to Agbayahoun and Lanmantchion (2020), GSM has become a crucial component of Nigerians' culture and way of life. It fosters investment and had a big impact on communication. It has been a source of income and employment for many Nigerian youths according to Bakare and Gold (2011) and also enables businesses and services like marketing, banking, transportation, consulting, and insurance to flourish. According to Kotler et al. (2006), the smartphone has given the underprivileged access to real opportunities for wealth creation, enabling them to escape the plague of poverty. Therefore, those dwelling in rural areas should be empowered with smartphones and encouraged to subscribe to MWS to boast about their businesses and promote their skills and talents.

### 3. Method

**3.1 Approach:** The study uses a systematic research technique to guide the literature search in numerous electronic databases on security and development challenges in Nigeria following the criteria set forth by Purba et al. (2021). Google Scholar, Scopus, Science Direct, Web of Science, Springer Link, Elsevier, Emerald, Wiley, Institute of Electrical and Electronics Engineers (IEEE) Xplore Digital Library, Association for Computing Machinery (ACM) Digital Library, Directory of Open Access Journals (DOAJ), Education Resources Information Center (ERIC), and Academic Search Complete (ASC) were the electronic databases examined. Purba et al. (2021) methodology set the phases of this investigation, which include a search strategy, study selection (inclusion/exclusion criteria), study eligibility and quality evaluation.

#### 3.2 Articles Considered After Appraisal

Using an advanced search strategy, 450 records were identified in the first step. 60 were found in Google Scholar, 30 in Scopus, 45 in Science Direct, 51 in Web of Science, 36 in IEEE, 24 in Emerald, 15 in ACM, 36 in Springer, 45 in Elsevier, 39 in JSTOR, 12 in ERIC, 9 in DOAJ, 21 in ASC, and 27 in Wiley. The number of articles preserved for further title reading was decreased to 350 after discarding works of literature that were similar, incomplete, not written in English, authors' opinions, or not published in a peer-reviewed scientific journal. Following that, only 240 articles met the eligibility criteria for further reading of the abstract. After reading the abstracts, just 102 papers remained for the main body reading. 93 of them evaluated the subject matter, and the papers were then downloaded for further screening. Duplicate papers and publications that lacked a clear explanation of poverty and development were manually deleted during the main body reading. At the end of the process, 85 papers remained that met all of the thesis's inclusion criteria as shown in table 1.

**Table 1: Number of Articles Used After Appraisal**

S/N	Language	Publications Retrieved	After discarding similar, incomplete, not in English, authors' opinions, Non-peer-reviewed work	After title reading	After abstract reading	After the main body reading	Articles Used after appraisal
1.	English	423	350	240	102	85	85
2.	French	12	12	12	12	12	None
3.	Spanish	6	6	6	6	6	None
4.	Chinese	9	9	9	9	9	None

### 4. Discussions

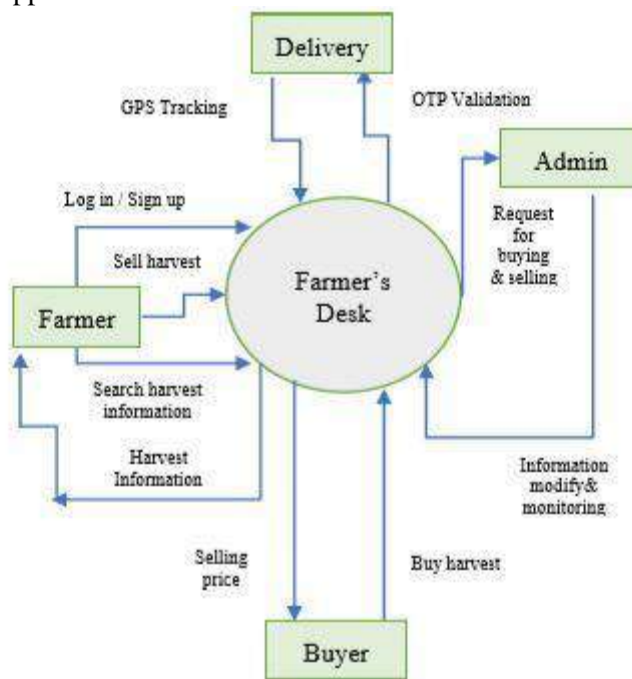
#### 4.1 The Mobile Web System

Rural dwellers have challenges marketing their products, skills, and talents across the nation. As such, immeasurable harvests, skills, and talents are wasted while the citizens of the country require them. The farmers, skillful and talented youths face an economic crisis of not being able to advertise and market their products. People need these products, skills, and talents but unfortunately, there is no proper delivery management system for them. Therefore, there is a need for a system that would connect the

sellers and the buyers. One way to achieve this is through the Mobile Web System (MWS). Countries like China have had remarkable success in reducing poverty in their countries through MWS, which has aided in the growth of their economies (Zhu et al., 2022). The MWS refers to mobile browser-based World Wide Web services accessed from handheld mobile devices, such as smartphones or feature phones, through a mobile or other wireless network (Qiao et al., 2019). It is a digital platform that enables people to share various content types with both the general public and a predetermined audience (Yarchi et al., 2021). Even the tiniest business can engage with its target market and the global community through this platform. Brown and Fiorella (2013) inform that one may develop a discourse with a broad audience through MWS, including current consumers, potential new customers, competitors, and suppliers. The good news is that customers can easily be attracted to a brand and eventually to local products with a little forethought and innovation (Kumar et al., 2018; Hamzah et al., 2021). MWS marketing is low-cost, it would enable millions of active users to instantly access any products of their choice and would be crucial for eradicating poverty (Phiri, 2020). Internet is used by millions of Nigerians. Therefore, whatever target market a person is looking for can be found here. Due to this factor, MWS has emerged as one of the most successful means of online product promotion. Therefore, the government has to create an enabling platform to encourage dwellers in remote areas to have access to this innovative platform to market their local products, skills, and talents. With this functionality, MWS has the potential to lessen the overall levels of poverty in Nigeria.

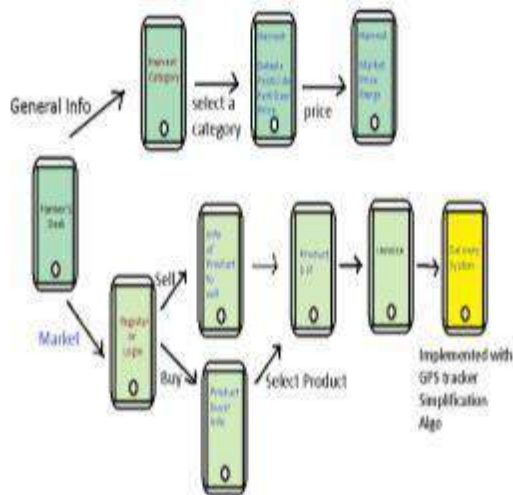
#### 4.2 How the Mobile Web System Works

**4.2.1 User Module:** Figure 1 depicts the operating principles of our mobile application. The user module is used to finish the application's registration process, and this can be divided into the buyer and seller interfaces. If the user is allowed, the user would present the information that is available based on their needs. The user data that was gathered on the registration page will be safely saved in the database. The administrator has access to this data. While promoting the product, authorised stakeholders can also examine some of the necessary user information. Additionally, when purchasing and selling products, the buyer and seller must give the necessary data for the database, invoice, and approval.



**Fig. 1. The System Architecture**

**4.2.2 Home Screen:** The splash screen serves as this application's home page. Two categories are displayed to the user on the home screen. The user can access the information and engage thereby selecting a particular category. The next paragraphs discuss the two categories. The entire procedure is depicted in Fig. 2.



**Fig. 2. The System Workflow**

\* **Information Page:** There is no approved user or login system necessary for this page. This page can be viewed by anybody. It has a variety of products, skills, and talents displayed. The following user interface adds products and their descriptions organised by category and the market price are then supplied in various user interfaces when a specific product has been chosen. Our approach will predict future rates based on the unique economic circumstances of the last two weeks and the current week. Therefore, it would be advantageous for dealers to sell their goods in a market at a certain period.

\* **Marketing Page:** One of the key components of this software is marketing products, skills, and talents. To quickly promote products, we needed a platform. Three different user interfaces are present here. The admin interface, the marketing interface, and the client interface. The admin interface enables the admin to monitor and manage the entire system. The marketing interface provides access to dealers to market their products, while the client interface allows the buyers to order goods from the platform. This platform would facilitate the speedy selling of products thereby preventing waste and economic crisis. Additionally, buyers would not have to waste time haggling or purchasing goods at a price higher than normal as the price is made available on the platform. The unique component of this system is the delivery system. Here, an additional delivery mechanism is implemented. The delivery system can assist if the buyer or seller lacks a delivery person or means of transportation because it features a tracking system and a firebase real-time database. Using the platform, both the buyer and the seller may monitor the delivery. Before accepting the job, the delivery person will perform the One-Time Password (OTP) verification using his legitimate information to ensure a safer delivery. With this development, those dwelling in rural areas would have express means of marketing and selling their products, skills, and talents. This would cut down poverty, boost the economy, and decrease insecurity in Nigeria.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

When a person's resources are significantly lower than their essential needs, they are said to be in poverty. According to studies, insecurity is a direct result of poverty and has hampered national progress. Kidnapping, armed robbery, bombing, theft, fraud, kidnapping children, human trafficking, rape, murder, assassinations, ritual killings, cultism, banditry, terrorism, infrastructure destruction, and political violence are a few examples of insecurity-related activities. Therefore, this article offered technological solutions for poverty alleviation and sustainable development of poor Nigerians especially those in the rural areas. With the supportive environment, it is established that MWS would help the underprivileged by promoting their local goods, talents, and skills. There is hope that many Nigerians would escape poverty if the rural dwellers are encouraged to enrol on this platform. With this development, insecurity would decrease and the economy would be strengthened.

## **5.2 Recommendations**

### **5.2.1 Provision of Mobile Devices**

In reality, most smartphones now have greater Internet capabilities, including the ability to connect to 3G and 4G networks, which provide the highest Internet speeds. As a result, if such smartphones are readily available in Nigeria for rural dwellers, It will be easier to connect to data, information, and computer resources from any location at any time, and residents would be able to market their local products, skills, and talents across the country. The role of the Nigerian Government is therefore to empower the rural dwellers with smartphones by making it available and affordable to encourage them to utilize the opportunities offered by MWS.

### **5.2.2 Training and Sensitization**

Smartphones are much more than just a calling device. They are increasingly the main method of accessing the Internet for individuals all around the world. While there are many benefits to using the Internet, using a smartphone efficiently necessitates a certain set of abilities and expertise. This implies that those without the necessary knowledge and abilities cannot utilise these services that improve their quality of life. The Nigerian Government should offer training and sensitization to increase citizens' grasp of the fundamentals of mobile Internet usage.

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