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UNDERSTANDING MASTER CRAFTSPERSONS' TECHNOLOGY PRACTICES FOR BUSINESS PRODUCTIVITY: A CASE STUDY OF TAILORS ON A NIGERIAN UNIVERSITY CAMPUS

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ABSTRACT

This study aims to understand how tailors on a Nigerian university campus in Ile-Ife use technology to enhance their business productivity in the informal sector. This qualitative case study explored the technological practices of male and female tailor master craftspersons at the Central Market on the Obafemi Awolowo University Campus in Ile-Ife, Nigeria. Fifteen tailors were selected for interviews conducted in both English and Yoruba, with the Yoruba interviews translated before transcription.

All interviews were tape-recorded, and the study employed content analysis for a comprehensive understanding of technology practices among master craftspersons for business productivity within the Central Market community. In conclusion, the study highlights the diverse challenges faced by artisans in the informal economy in adopting and leveraging digital tools, emphasising the need for a holistic approach involving infrastructure enhancements, digital literacy training, and targeted interventions to improve internet accessibility and affordability.

Keywords:
Technology Practice; Informal Sector;Digital Literacy Skills; Digital Devices; Productivity

INTRODUCTION

The advancement in science and technology has sparked a dramatic change in every facet of human life. The advent of computer technology, particularly noticeable in the creative industry, has ushered in a transformative revolution in human society. Individuals and development organizations experience transformations when adjusting to advancements in technology (Durowoju, 2017).

The contemporary business landscape is significantly shaped by the widespread adoption of internet technology, as it swiftly transforms global production, work processes, trade, and consumption patterns for both enterprises and consumers, offering numerous opportunities for competition (Selase, Selase. Ayishetu, Comfort, Stanley & Ebenezer).

The inclusion of advanced technologies involves the integration of potent and affordable microelectronic devices, which possess the capability to enhance productivity in both office and factory production activities (Smith, 2007). One of the transformative modern technologies that has had a profound impact on humanity is social media technology.

It is evident that social media platforms have seamlessly integrated into our daily lives. According to Lewis (2010), social media serves as a comprehensive term encompassing technologies that offer a platform for content creation, sharing, linking, and connecting with others. It is a computer-based technology digital platform facilitating the exchange of ideas and information, encompassing text and visuals within virtual networks, involves user-generated content fostering interaction through likes, shares, comments, and discussions, with a global user base exceeding 4.7 billion (Dollarhide, 2023). This network of internet facilities is rooted in the technological and ideological principles of web 2.0, allowing users to generate and modify content (Kaplan & Haenlein, 2010). Siddiqui and Singh (2020) further elaborate that social media comprises social networking sites and blogs, facilitating easy connections between individuals.

It plays a role in enabling communication, allowing people to generate, share, and sometimes exchange ideas, images, audios, videos, and more over the internet and within virtual communities (Adegboyega, 2020; Akram & Kumar, 2017). Kasturi & Vardhan (2014) elucidate that social media platforms offer users free space for sharing personalised content, a unique web address for individual identity, profile-building features for connecting with similar individuals while managing accessibility, and facilitate virtual connections, real-time content uploads, and immediate feedback with timestamped posts. Lievrouw & Livingstone (2006) asserts that the two foremost and notable features that set social media platforms apart from traditional mass media are media ubiquity and interactivity.

Ubiquity pertains to impacting everyone in the societies where they are employed, even if not everyone in those societies actively utilizes them. On the other hand, interactivity involves the selectivity and extent of choices in information sources and interactions with other people that media technologies provide to users. According to Howard and Park (2012), social media consists of three primary components: (1) the infrastructure and tools for creating and sharing content, (2) the content itself, encompassing concepts, ideas, messages, information, and news, and (3) decoders, represented by users

and consumers, including industries, organizations, and individuals.

In the contemporary world, the integration of modern technology into traditional craftsmanship systems is fundamental, providing opportunities for enhancing business efficiency, productivity, innovation, and sustainability. However, this integration also poses challenges that need careful consideration. This research therefore endeavours to delve into the intricate landscape of technology practices among master craftspersons, with a particular focus on tailors within the unique and dynamic context of a Nigerian university campus. By examining the practices of these skilled artisans, this study seeks to uncover the nuanced ways in which technology is integrated into their craft and daily operations. The insights gained from this investigation aim to contribute not only to the understanding of technology adoption and

practices in traditional trades but also to inform strategies that enhance business productivity and sustainability within this specific cultural and educational context.

OBJECTIVES OF THE STUDY

This study seeks to provide an understanding of technology practices for business productivity among tailor master craftpersons at the Central Market on the Obafemi Awolowo University Campus, Nigeria. Specifically, the objectives of this study are to:

i. identify the digital devices and applications employed by tailors to improve business productivity within the Obafemi Awolowo University Campus;
ii. explore the level of digital literacy skills exhibited by tailors operating in the study context;
iii. examine the impact of digital technology utilisation and the digital literacy skills of tailors on their overall productivity in the study context; and
iv. investigate the challenges encountered by tailors when integrating digital devices to enhance business productivity and propose potential strategies to overcome these challenges.

CONCEPTUAL FRAMEWORK

The conceptual framework that undergird this study is the Technology Acceptance Model (TAM) by Davis (1989). This framework (Fig, 1) explores how users of information systems adopt and engage with technology. The two key elements of this model are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). According to Davis (1989), Perceived Usefulness (PU) is described as the extent to which an individual believes that utilising a specific system would improve their job performance.

Similarly, Perceived Ease of Use (PEOU) is defined as the extent to which an individual believes that using a particular system would require minimal effort. The central feature of this model lies in its focus on the perceptions of potential users, implying that a technology product, even if deemed useful and user-friendly by its creator, will only be accepted by users if they share those beliefs (Thompson, 2017).

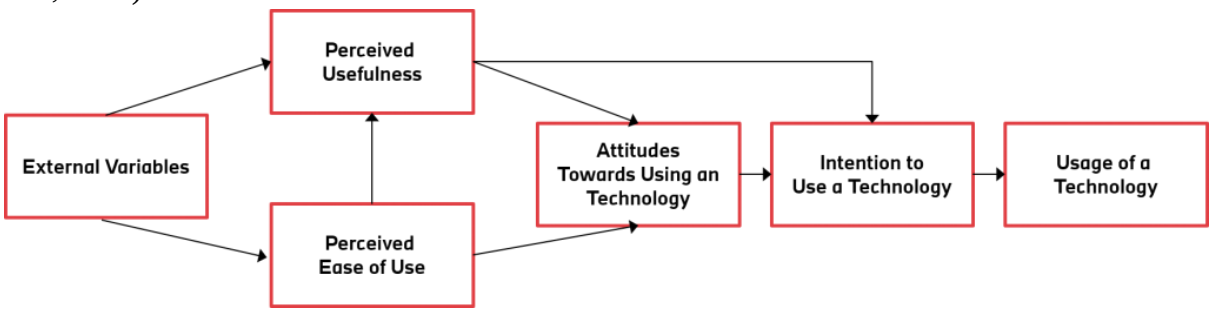
TAM's main goal was to elucidate the factors that influence the acceptance of technology, aiming to predict behaviour and provide a theoretical explanation for the successful implementation of technology (Marikyan & Papagiannidis, 2023). This framework is based on principles from social psychology, specifically drawing on the Theory of Reasoned Action (TRA) developed by Fishbein and Azjen in 1975 (Lin, 2007; Ma, & Liu, 2004). According to TRA, beliefs play a pivotal role in shaping attitudes, which subsequently influence intentions and ultimately drive behaviour.

Relevance of TAM to this study :

Ajibade (2018) assert that TAM is more applicable to individual use and technology adoption than to firms, companies, or most organizations. This assertion highlights that TAM (Technology Acceptance Model) is particularly relevant for understanding the technology use of individual master craftspersons rather than in the context of firms, companies, or most organizations. The focus on individual use and technology adoption aligns with the nature of master craftspersons' work, emphasizing personal engagement with technology rather than organizational-level integration.

TAM will provide a useful framework for understanding the factors that influence tailors' adoption and use of digital technology, which is a key focus of the study. In other words, TAM will help to understand the factors that influence tailors' perception of the usefulness and ease of use of these digital devices and applications.

Fig. 1: The Technology Acceptance Model (Davis, 1989)



METHODOLOGY

This is a qualitative study that employed a case study research design. The research aimed to comprehensively investigate the technology practices of all male and female tailor master craftspersons situated at the bustling Central Market on the Obafemi Awolowo University Campus in Ile-Ife, Nigeria. To achieve this, a carefully selected sample of fifteen tailors, comprising ten females and five males, was chosen using the accidental sampling technique. Conducting a hands-on approach, the researcher personally engaged in conducting interviews with the participants, facilitating a direct and authentic exploration of their insights. The interviews were conducted in both English and Yoruba languages to ensure a culturally sensitive and inclusive dialogue. Notably, the richness of the conversations was preserved through the tape recording of the interviews. The subsequent transcription process involved meticulous attention to detail, with English interviews transcribed verbatim and Yoruba interviews undergoing translation before transcription. This multilingual approach aimed to capture the nuances of participants' expressions and experiences accurately. To guide the data collection process, an in-depth interview guide was designed, containing questions thoughtfully aligned with the research inquiries. This ensured a systematic and focused exploration of the factors under investigation. Upon the completion of data collection, the analysis phase employed a dual approach. Content analysis was used to offer a comprehensive understanding of the intricate facets shaping the experiences of tailors within the Central Market community.

Results and Discussion

Table 1 displays the distribution of study participants categorized by their gender. The representation in the table indicates that out of the total participants, five individuals are male, while ten individuals are female.

Table 1 **Profile of Participants Based on Gender**

Gender	**Number**
Male	5
Female	10
Total	15

This distribution suggests that within the industry in this specific area, there is a higher proportion of women compared to men.

Regarding educational attainment, Table 2 shows that the participants were divided into several
categories. One participant holds a Primary School Leaving Certificate, which indicates completion of
primary education. Ten participants studied up to a senior secondary level, which typically

corresponds to the completion of secondary education.

Table 2 **Profile of Participants based on educational qualifications, and years of Experience**

Highest Educational Qualifications		**Years of Experience**	
Categories	**Number**	**Categories**	**Number**
Pry School Level	1	0-5	3
O'Level	10	6-10	2
NCE/ND	1	11-15	1
First Degree/ HND	3	16-20	6
		Above 20	3

One participant holds a Nigerian Certificate in Education (NCE), which is a qualification for teaching at the primary school and lower basic levels of secondary school in Nigeria. The NCE programme focuses on providing pedagogical and subject-specific knowledge and skills necessary for effective teaching in these educational settings. It is a recognized certification for individuals aspiring to become teachers in the Nigerian educational system. Three participants hold a bachelor's degree or a higher national diploma (HND) which indicates a higher level of education. From this information, it can be observed that the majority of participants have a relatively low level of educational attainment, as the highest level reached by most participants is senior secondary education. Only a few participants possess a higher education degree or equivalent.

Table 2 also provides details about the participants' work experience. The majority of participants (three individuals) have accumulated work experience ranging from 0 to 5 years. This suggests that there are relatively fewer individuals in the early stages of their careers within the participant group. Two participants have gained work experience between 6 and 10 years, indicating a moderate level of experience in their respective crafts. These individuals have likely progressed beyond the initial stages of their careers and have acquired a certain level of expertise. One participant has been practicing for a period between 11 and 15 years. This suggests a more extended period of professional experience and may indicate a higher level of expertise or seniority compared to those with shorter tenure. Six participants have accumulated work experience ranging from 16 to 20 years. This indicates a substantial amount of experience and suggests that these individuals have likely developed advanced skills and knowledge within their craft. Only three participants have work experience exceeding 20 years. This indicates that a smaller number of individuals within the participant group have reached a senior level of experience, potentially representing a higher level of expertise, leadership, or specialization.

The distribution of work experience among the participants shows a range of experience levels, with a majority having relatively shorter tenure, a moderate number having mid-career experience, a significant portion having substantial experience, and a smaller group representing individuals with extensive senior-level experience.

Based on the analysis above, the majority of participants have relatively low educational levels, and their work experience varies across different time ranges, with a significant number of participants having 16 to 20 years of experience.

Research Question One: What are the digital devices and applications being used by tailors on a Nigerian University campus for enhancing their business productivity.

Table 3 illustrates the digital device preferences of the participants. Out of the total participants, thirteen individuals exclusively use smartphones as their primary digital device for their trade. None of the participants solely rely on a computer system. However, two participants reported using both a smartphone and a computer for their work.

Table 3 Digital Devices Preferences of Participants

Digital Devices being Used Participants	**Number of Participants Using them**
Smartphones only	13
Computer systems only	0
Both smartphones and computers system	2

A smartphone is a type of mobile device that combines advanced computing capabilities, networking functionality, and multimedia features, while retaining the basic functionalities of a standard mobile phone. Smartphones have become an integral part of people's lives, enabling them to engage in various activities such as organizing tasks, shopping, commuting, business meetings, and socializing, while being mobile and flexible (Whyte, 2019). They have evolved to possess powerful central processing units (CPUs) , increased memory capacity, diverse network interfaces, and robust operating systems like Windows Phone, Google Android, and Apple iOS (Xia et al., 2015). The utilization of smartphones for business and communication purposes has impacted the coordinating mechanisms of bureaucracy, market interactions, and trust (Alvesson &Thompson, 2006).

A computer system encompasses both hardware and software components that collaborate to carry out diverse tasks and operations. The hardware component of a computer system comprises tangible elements such as the central processing unit (CPU), memory, input/output devices (keyboard, mouse, display), and storage devices (hard disk drive, solid-state drive, flash drives). On the other hand, the software aspect includes the operating system (OS), which oversees hardware resources and provides a user interface for interaction. Additionally, software applications or programs run on top of the operating system, delivering specific functions like word processing, web browsing, or multimedia playback. Computer systems come in various sizes and complexities, ranging from compact embedded systems in devices and appliances to large-scale mainframe computers used in enterprise-level applications. The evolution and progression of computer systems have brought about transformative changes across several domains, including business, education, entertainment, and healthcare. These advancements facilitate swifter and more efficient processing of information, enhanced communication, and improved collaboration. In business, computer systems are utilized in corporate operations management and transaction processing to help with production (Cofas & Chiurciu, 2020).

The majority of participants relied on their smartphones to experience the advantages of digital life. This preference can be attributed to several factors such as convenience, portability, ample storage capacity, user-friendly operation, longer battery life, and quick access to online information. These considerations led to a higher usage of smartphones compared to computer systems. For example, participants T1 and T2 expressed their comfort with using smartphones, highlighting their proficiency with these devices.

The table shows that the majority of the participants (thirteen individuals) rely solely on smartphones as their primary digital device for conducting their trade. This suggests a preference for mobile devices, indicating that smartphones offer sufficient capabilities and functionalities for their work requirements. It also suggests that none of the participants solely rely on a computer system for their trade. This implies that computer systems are not considered essential or are less utilized within the context of their specific trade or industry. The exclusive use of smartphones by the thirteen participants suggests that they value the portability and convenience offered by these devices. Smartphones allow them to carry out their trade-related activities on the go, providing flexibility and accessibility that might not be as readily available with computer systems.

For example, participants T1 and T2 expressed their comfort with using smartphones, highlighting their proficiency with these devices. The participants' reliance on smartphones as their primary digital device implies that they likely utilize various mobile apps and connectivity features to support their trade. These apps may provide specific tools, resources, or platforms that cater to their industry or trade requirements. While smartphones offer convenience and portability, their exclusive use may indicate potential limitations in terms of the complexity of tasks or software applications that can be supported. It suggests that the participants' trade or industry may not require extensive computing power or specialized software that is typically available on computer systems.

The table also reveals that two participants have adopted a combination of digital devices to support their professional activities. They have embraced a multi-device approach to enhance their work efficiency and effectiveness. They recognize the value and advantages of leveraging different devices for various tasks and functionalities. In addition, by utilizing smartphones and computer systems, these participants leverage the mobility and portability of smartphones while benefiting from the larger screens, advanced processing power, and specialized software available on computer systems. This allows them to leverage the strengths of each device for different aspects of their work. The use of both smartphones and computer systems indicates that these participants have access to a broader range of digital tools and applications. They can take advantage of mobile apps for on-the-go tasks, communication, and quick access to information, while also utilizing the full suite of software and resources available on a computer system.

The combination of smartphone and computer system usage suggests that these participants have tailored their workflows to suit the strengths and capabilities of each device. They can seamlessly transition between mobile and desktop environments, optimizing their work processes and leveraging the most appropriate device for specific tasks or contexts.

Both the formal and informal economies have witnessed changes due to the widespread adoption of smartphones. Smartphones provide a simplified interface for various types of work, enabling individuals to participate in new forms of employment (Whyte, 2019). Notably, the informal economy has experienced a transformation due to the increasing use of mobile phones, as these devices have been found to benefit individuals engaged in the informal sector and improve the living standards of the underprivileged (Larson &

Svensson, 2018). In this study, smartphones play a significant role in the lives of the master craftspersons, providing them with a versatile tool for their trade, communication, and access to various opportunities and services.

In Table 4, the analysis of the digital applications used by the study participants in their business is presented. The table reveals that WhatsApp is utilized by all participants, with one participant using Phoenix, and fourteen participants using Facebook. Additionally, four participants use Instagram, while three participants each use Pinterest, Play Store, and Google. This data indicates that all participants are proficient in using at least one digital application on their digital devices, including smartphones and computer systems.

Table 4 Details of applications used by the respondents

Applications	**Number of Users**
WhatsApp	15
Phoenix	1
Facebook	14
Instagram	4
Pininterest	3
Playstore	3
Google	3

The fact that all participants use WhatsApp suggests that this digital application is widely adopted and has become a common communication tool among the study participants. WhatsApp's popularity can be attributed to its ease of use, widespread availability, and versatile features that facilitate communication. While WhatsApp is universally used, other digital applications show varying degrees of usage among the participants. Facebook is the most widely used digital application after WhatsApp, with fourteen participants utilizing it. This indicates that Facebook is a popular platform for networking, socializing, and potentially conducting business-related activities among the participants. The participants demonstrate a range of digital application preferences beyond WhatsApp and Facebook. This diversity includes the use of Phoenix, Instagram, Pinterest, Play Store, and Google. Each application serves different purposes, such as content creation and sharing (Instagram), visual inspiration and curation (Pinterest), accessing app downloads (Play Store), and general internet searches (Google). The fact that all participants use at least one digital application (WhatsApp) on their digital devices (smartphones and computers) indicates a level of proficiency and familiarity with technology. This suggests that the participants are comfortable with utilizing digital tools to support their business activities.

The majority of participants rely solely on smartphones as their primary digital device for their trade, indicating a preference for mobile-centric solutions and suggesting that smartphones meet their work requirements effectively. The limited reliance on computer systems suggests that they may not be essential within their specific trade or industry context, potentially due to the convenience and functionality provided by smartphones. Also, the participants exhibit a strong reliance on WhatsApp for communication purposes, and while other digital applications show varying usage patterns, the participants demonstrate competency in utilizing a range of digital applications on their digital devices. This indicates a level of technological integration and adoption within their business practices.

Research Question Two: What are the ddigital literacy skills possessed by artisans in the informal economy in Ile-Ife

This section focuses on the digital literacy skills possessed by the participants in the study, addressing questions that are relevant to the study's objectives.

Sending and Receiving Messages/Chatting

The participants in the study demonstrated proficiency in the skill of sending and receiving messages or engaging in online chatting.

They were able to effectively communicate through digital platforms, such as messaging apps or chat platforms. This skill encompasses the ability to compose and send messages, as well as to receive and respond to messages from others. The participants' competence in this area indicates their familiarity with the functionalities and features of digital communication tools, enabling them to effectively engage in online conversations. As an example, participant T6, who possesses a senior secondary school certificate, mentioned, **"**I can make calls, send messages and I can also send voice notes, make WhatsApp calls and video calls too". Similarly, participant T1, whose education level did not surpass secondary education, shared his experience by stating:

> I also send bulk messages to my customers whenever I need to, most especially when I need to pass a message across to them, such as sending them wishes on special occasions.

Another participant, who demonstrates proficiency in the skill of sending and receiving messages using digital devices, expressed:

> I normally post my work through status and I also send bulk messages to my customers whenever I need to most especially when I need to pass a message across to them.

Downloading, Installation and Updating of Application Software (App)

The participants in the study exhibited proficiency in the skills of downloading, installing, and updating application software (apps). The social media platforms are built as application software. The participants demonstrated their ability to access and download apps from digital platforms, install them on their devices, and keep them up-to-date by performing regular updates. Downloading involves transferring files of the application from a remote server to a device, precisely phones (Wright, 2021). Installation, on the other hand, is the process of preparing the software for use and getting it ready. It is the whole of a system of application software when set up and arranged for practical work such as sending and receiving messages. Updating an application is the upward modification carried out on an existing application for improved performance. It is a modification of the application to reflect more recent, up-to-date versions or to capture additional information. These skills indicate the participants' familiarity with app stores, software installation processes, and the importance of staying current with app versions to ensure optimal performance and security. The participants' competence in this area highlights their capability to effectively manage and utilize digital tools to enhance their digital experiences and support their business or personal needs.

When asked if they could handle the social media apps, the response of **T1** was quite affirmative and reflected confidence. Regarding T2, she mentioned that she has the capability to obtain the latest versions of apps from her friends using file transfer apps. However, she primarily relies on updating or downloading new apps through the Play Store. On the other hand, T9 shared her perspective by stating:

> Most of the time WhatsApp brings notification when it is about to expire and once it does, I click on the upgrade option. But if it fails, I go to the play store and have a new one downloaded.

When questioned about their knowledge of downloading applications on their digital devices, T15 responded by stating:

> Yes. I sometimes download from play store or Google and also if I want to get styles for clothes I'll just go to Pinterest or YouTube.

When inquired about their approach to updating outdated applications on their digital devices, T2, who holds an HND qualification, replied:

> Yes I can. I can collect the latest edition from my Friends via fender but most times I go to play store to go and update them.

INTERNET BROWSING

Browsing has been defined as the process of going from one website to the other in search of or to read meaningful contents with desire (GreeksforGreeks, 2013). Browsing the internet is required to have access to the information available on it.

It is also commonly used to describe when a user reads through several web pages on the internet. The participants in the study displayed proficiency in the skill of internet browsing. They demonstrated the ability to navigate and explore websites, search for information, and access online resources using web browsers. Internet browsing skills encompass tasks such as entering website addresses (URLs), using search engines to find specific information, navigating webpages, clicking on links, and utilizing browser features like bookmarks and tabs. The participants' competence in internet browsing indicates their familiarity with online information retrieval and their ability to effectively utilize the internet as a valuable resource for various purposes, including research, communication, and staying informed. For example, when questioned about her digital device capabilities, T3 responded by stating: "I can only browse, send and receive messages and perform few other activities.

The analysis above has revealed that the participants possess a range of digital skills, albeit with variations among individuals. Some of the digital skills demonstrated by the participants include the ability to send and receive messages online, commonly referred to as chatting, downloading, installing, and updating software applications, as well as proficient internet browsing.

Research Question Three: Examine the challenges faced by the artisans in the informal economy in using digital devices to enhance their business productivity.

While utilizing the social media platforms through their internet-enabled devices or applications mentioned earlier, the participants encountered various challenges. Below are some of the challenges faced by the participants as they strive to enhance their internet proficiency, along with explanations for each challenge.

Problem of erratic power supply

The significance of reliable energy in the home, business, and industry cannot be overstated. It is required for the manufacture and distribution of goods. With the increased use of social media as a trading tool, the requirement for consistent electricity to power internet-enabled gadgets has become more important than ever. However, consistent energy is non-existent in Nigeria, as the government continues to struggle to generate enough electricity to power all households and businesses. This heinous problem has impacted both small and large-scale businesses, tailors included. This section discusses how the artisans' use of the internet is affected by a lack of electricity.

T1 emphasized that the insufficient electricity supply is a significant challenge and negatively affects his use of digital devices. He often relies on power banks as an alternative power source for their gadgets. Similarly, T5 also experienced a lack of electricity supply, but has addressed this issue by owning a generator and utilizing a power bank to ensure uninterrupted device usage. Similarly, T8 expressed frustration with the unstable electricity supply in their line of work. He mentioned that the unreliable electricity situation is a common occurrence in Nigeria, and to cope with power outages, they have acquired a power bank as an alternative solution.

The participants have been compelled to rely on power banks and generators as alternative power sources due to the challenge of insufficient electricity supply. However, the drawback of these alternatives is their expensive nature in terms of both initial purchase and ongoing maintenance costs, particularly for generators.

The findings of this study support various reports about the poor state of electricity in Nigeria. According to the founder of Folorunso Acquisition Centre, Nigeria, Mrs Folorunso Alakija, electricity is the greatest impediment to the development of entrepreneurship in Nigeria (Adekoya, 2019).

The World Bank disclosed that businesses in Nigeria face an annual loss of $29 billion due to unreliable electricity supplies (Ojukwu, 2022). Alike and Addeh (2022) report that unreliable power in the country has become a significant problem for citizens and businesses, resulting in annual economic losses estimated at $26.2 billion (N10.1 trillion), equivalent to about five per cent of the nation's Gross Domestic Product (GDP).

POOR NETWORK SERVICE

The challenges faced by artisans in the informal economy who participated in this study regarding the use of digital devices are exacerbated by the inadequate network service provided by network service providers. Participants highlighted issues such as unreliable network coverage, and intermittent network failures as prominent network service-related challenges. As an example, T2 conveyed that she has encountered numerous challenges, with the most persistent one being poor network service. Similarly, T3 identified poor network service as the sole issue she could pinpoint in relation to the challenges encountered when using digital devices. Other participants who encountered challenges primarily related to poor network services are T5, T6, and T7. However, T8 faced a dual challenge in terms of the network. He experienced both poor network coverage in the area where their business operates and inadequate data services.

The analysis above suggest that inadequate network service provided by network service providers is a significant hindrance for artisans in the informal economy when using digital devices. Participants in the study consistently highlighted issues like unreliable network coverage and intermittent network failures as major challenges related to network services. This is evident from the experiences shared by T2, T3, T5, T6, and T7, who all faced difficulties primarily associated with poor network services. T8's case, facing both poor network coverage and inadequate data services, further exemplifies the detrimental impact of network-related challenges on artisans' digital device usage in the informal economy.

RAPID DEPLETION OF DATA

Another challenge emphasized by some of the participants in this study is the rapid depletion of data on their digital devices. For example, T9's experience was as follows: “Additionally, the digital device consumes a significant amount of data, particularly when using social media”. Izuaka (2023) explains that data depletion takes place when a subscriber consumes his or her entire data bundle before its expiration date or when a greater amount of data is used to access online content. This suggests that managing data usage and finding cost-effective ways to use digital devices for social media activities is a concern for some individuals in the study.

This finding corroborates Adaramola (2023) and Izuaka (2023) report that the Executive Vice Chairman/Chief Executive Officer of the Nigerian Communication Commission, (NCC), Umar Danbatta, lamented that the problem of data depletion has emerged as a prominent concern among telecom consumers following their migration to 4G/LTE technology.

Overreliance on Internet Sources as an Alternative Means for Learning

Social media usage transcends age, social or economic status, and user experience, accommodating both young and old. However, it is often misused by youngsters overly obsessed with the amusement it offers. When asked about the challenges they encountered in using social media platforms to promote their business, participants shared their thoughts. For

example, The T4 was disheartened by the youth's unresponsive attitude, as they were consistently seeking "fast shortcuts" on social media, implying a desire for quick wealth. He said:

> It is indeed disappointing to see many youths nowadays overly engrossed with the internet, often neglecting the opportunity to learn valuable vocational skills and instead seeking quick and easy shortcuts.

The data suggest that some apprentices tend to excessively rely on internet sources as an alternative means for learning.

They rely heavily on online materials and resources instead of traditional methods, which has some negative implications for their learning experience and knowledge acquisition. With the replacement of traditional physical teaching methods in the skill-learning process, apprentices often lose focus due to their addiction to internet-enabled devices. The lack of obedience, enthusiasm, and passion to learn has become a significant obstacle for the participants. **T11** posited that:

> The devices also bring disadvantages, as people often lack patience and may not complete their learning period. They have the mindset that they can search for learning materials online after a few months of learning, resulting in shallow understanding. This practice is detrimental to their future prospects.

The analysis above indicates that both enthusiasts and apprentices of the skill tend to excessively rely on internet-sourced materials to excel in their work. E-learning has taken the place of traditional teaching methods. Those expressing their opinions believe that internet-sourced materials do not adequately cover values, cultures, and the core principles of the trade. They argue that relying solely on internet materials results in incomplete knowledge and skills.

Language barrier

Language serves as an essential tool for effective communication, facilitating the transmission of messages from one person to another or between different locations. Due to language variations, many social media users have chosen to communicate in the widely-used
lingua franca, English. Nevertheless, this has proven to be a challenging experience for some participants who lack sufficient proficiency in the language, making sending and receiving messages in English a difficult task for them. For example, T6 and T13 lamented respectively:

> Language has been a barrier, making it challenging for me to fully utilize these social media platforms without strong communication skills.

> My proficiency in using the platforms is limited, and I am still in the process of learning due to my difficulty in reading fluently. I have been taking classes to enhance my communication skills on these platforms. For instance, I can send files on WhatsApp and upload pictures of styles on my status for customers to view, but adding captions remains a challenge.

From the statements made by T6 and T13, it can be inferred that language proficiency and communication skills play a significant role in effectively utilizing social media platforms. Both participants express challenges in fully utilizing these platforms due to their limited language abilities. They acknowledge that improving their communication skills, including the ability to read fluently and add captions, is essential to overcome these barriers and make the most of the social media platforms. Taking classes to enhance their communication skills demonstrates their proactive approach to address these challenges and improve their usage of social media for personal and business purposes.

CONCLUSION

This study examined various aspects related to artisans in the informal economy, focusing on their profile, digital device usage, digital literacy skills, and challenges faced in leveraging digital tools. The participant profile highlighted a gender imbalance in the industry, with a higher representation of women. Educational qualifications varied, indicating a predominant attainment of senior secondary education among participants. The majority of participants had relatively shorter work experience, while a significant portion had substantial experience.

Regarding digital device usage, the study found a preference for smartphones, with limited reliance on computer systems. WhatsApp emerged as the predominant communication tool, and participants demonstrated proficiency in using various digital applications. The analysis of digital literacy skills revealed competence in sending or receiving messages, downloading/installing/updating apps, and internet browsing. Challenges faced by participants included erratic power supply, poor network service, rapid data depletion, overreliance on internet sources for learning, and language barriers. Power outages prompted reliance on power banks and generators, albeit with associated costs. Inadequate network services posed obstacles, impacting participants' ability to use digital tools effectively. The rapid depletion of data was a concern, requiring cost-effective data management strategies. Some participants expressed frustration with the overreliance on the internet for learning, emphasizing the importance of traditional methods. Language barriers hindered effective communication on social media platforms, prompting participants to seek improvement through language classes.

These findings underscore the multifaceted nature of challenges faced by artisans in integrating digital tools into their businesses. Addressing these challenges may require a

comprehensive approach, including infrastructure improvements, digital literacy training, and targeted interventions to enhance internet accessibility and affordability.

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