



## TECHNOLOGY ADOPTION AND PERFORMANCE OF FEMALE TRADERS IN THE INFORMAL SECTOR IN OYO STATE, NIGERIA

### USVAJANJE TEHNOLOGIJE I POSLOVNA USPJEŠNOST ŽENA TRGOVACA U NEFORMALNOM SEKTORU U SAVEZNOJ DRŽAVI OYO, NIGERIJA

Eseyin Emmanuel Olorunleke<sup>1\*</sup>

<sup>1</sup>Human Capital Policy Department, Nigerian Institute of Social and Economic Research (NISER), Ojoo, Ibadan, Oyo State

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#### ABSTRACT

The world has gone global and every aspect of human life is influenced by technology. Adopting technology can be way to improve business performance among women who dominate the informal sector. However, how well technology has been embraced by these women in this sector cannot be explained given the low level of business performance. There were six research questions raised to guide the study which was conducted using survey design. The population of the study consisted of all women in the informal sector in Oyo State, Nigeria out of which 240 women were sampled using multistage sampling technique. The instrument used for data collection was questionnaire which was analyzed using descriptive statistics (frequency and percentage) as well as inferential statistics (logistic regression). The finding of the study indicated that 66.7% of the women do not have internet enabled device while those who have, 35% used the device for communication while 22% use their device for financial transactions. There was a significant effect of technological adoption on the performance of the businesses owned by the women. The inability to adopt technology was due to several identified factors. It was concluded that adopting technology can drive the performance of female traders in the informal sector in Oyo State. Adequate awareness and training was recommended by trade groups and the government to enable the women embrace technology for improved business performance in the State.

**Key words:** Adoption, Business, Informal Sector, Performance, Technology.

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\* Correspondence author: Eseyin, Emmanuel Olorunleke, Human Capital Policy Department, Nigerian Institute of Social and Economic Research

E-mail: ephrata4doptimist@yahoo.com

## SAŽETAK

Svijet je postao globalno povezan i svaki aspekt ljudskog života pod utjecajem je tehnologije. Usvajanje tehnologije može biti način unapređenja poslovne uspješnosti žena koje dominiraju neformalnim sektorom. Međutim, stepen u kojem su ove žene prihvatile tehnologiju u ovom sektoru ne može se jasno objasniti, s obzirom na nizak nivo poslovne uspješnosti. U istraživanju je postavljeno šest istraživačkih pitanja, a studija je provedena primjenom anketnog (survey) istraživačkog dizajna. Populaciju istraživanja činile su sve žene u neformalnom sektoru u saveznoj državi Oyo u Nigeriji, od kojih je 240 žena odabrano primjenom višestepenog uzorkovanja. Instrument za prikupljanje podataka bio je upitnik, a podaci su analizirani korištenjem deskriptivne statistike (frekvencije i procenti) te inferencijalne statistike (logistička regresija). Rezultati istraživanja pokazali su da 66,7% žena ne posjeduje uređaj s pristupom internetu, dok među onima koje ga posjeduju 35% koristi uređaj za komunikaciju, a 22% za finansijske transakcije. Utvrđen je statistički značajan uticaj usvajanja tehnologije na uspješnost poslovanja u vlasništvu žena. Nemogućnost usvajanja tehnologije povezana je s nekoliko identificiranih faktora. Zaključeno je da usvajanje tehnologije može značajno unaprijediti poslovnu uspješnost žena trgovaca u neformalnom sektoru u saveznoj državi Oyo. Preporučuje se da trgovačka udruženja i vlada osiguraju adekvatnu edukaciju i podizanje svijesti kako bi se ženama omogućilo prihvatanje tehnologije u cilju poboljšanja poslovne uspješnosti u državi.

**Ključne riječi:** usvajanje, poslovanje, neformalni sektor, uspješnost, tehnologija.

## INTRODUCTION

Technology plays an important role in every sphere of the human life and this includes the business environment where the activities of traders in the informal sector has been highly traditional. The benefits of technology in the business sector like other key industrial sector goes beyond efficiency in the production process but has been very useful in the reduction of cases of environmental pollution as people are able to use more advanced methods to carry out their day-to-day activities and this includes the trading activities that are carried out by women in this sector. In fact, it is arguable to state that if women can be encouraged to adopt modern technology in every sphere of business, the issue of environmental pollution and poor performance in business can be adequately addressed.

It is on this premise that the government in Nigeria and particularly in Oyo State have been making concerted effort to invest in the technological space and also encourage indigenes particularly women to adopt these technologies in their various economic endeavours. The need for technological adoption cuts across activities in the manufacturing, agriculture and service sectors and as such, players in these sectors must be encouraged to embrace emerging technologies in carrying out their various activities as this will not only improve performance and profitability but will also guarantee environmental sustainability in the long run.

Globally, the role of technology is being felt not just for its social and economic relevance but also as a tool for developing reasonable, responsible and productive individuals. Today, there are several forms of technology ranging from simple to sophisticated devices that are being

used to drive performance at individual, organizational and national levels. However, the use of these emerging technologies among women in business has remained an issue of concern as this is expected to promote enterprises run by women as well as contribute to national growth and development.

Women form a larger percentage of the global population in both developed and developing economies and they play active roles in the informal business sector (Anyanwu, 2022). This sector is a significant contributor to national employment and output and largely dominated by women and with the right policies, programmes, projects and interventions in place, it is expected that women should be able to contribute significantly to global business transformation through improved business performance by leveraging on technology. The adoption of technology is seen as a way to assist women compete and perform better in businesses but this practice has been largely slow. Empirically, only 2% of women in micro enterprises adopt technology in their trading activities and the need to change this narrative is essential for trade competitiveness.

### **Statement of the Problem**

Female business owners have for several decades continued to struggle to catch up with their male counterparts both in the formal and informal sectors. Currently, there more female traders across most industrial sectors in Nigeria with some of them being in business for a long time. However, their level of performance has been abysmally low given the fact that most of these female traders have struggled to transform from micro to small, medium or even large scale production while the revenue of most of these businesses have been very insignificant. Today, technology is considered to be a leveler that is expected to improve the chances of female traders to perform well in business like their male counterparts but how well these female traders adopt these emerging technologies in business remains unclear. The failure to enhance the performance of businesses operated by female traders in the informal sector will result to delay in the achievement of the SDG 5, increase the poverty level among women, family imbalance and several other socioeconomic challenges.

### **Theoretical Underpinning**

This study was anchored on the Theory of Reasoned Action which was propounded in 1975 by Martin Fishbein and Icek Ajzen. The theory highlights that the intention to behave in a specific manner is determined by an individual's attitude and subjective norm. Attitude in this case refers to the positive or negative feeling that he or she has about performing that behaviour while the subjective norm is the perception held by the individual that people expect him or her to either perform or refuse to perform that behaviour.

The relevance of this theory to this study is on the fact that adoption of technology in the area of trade can be developed as a business behaviour and the willingness to do this is premised on the positive or negative feeling that the trader has about the impact of technology on their business. Similarly, female traders will likely adopt technology based on whether or not their prospective or existing customer expect them to do so. All of these influence the extent to which a female informal trader will adopt technology for improved business performance irrespective of the type of trade.

## Women and Business Performance in the Informal Sector

Women form a very significant population of not just the world but also across different countries and studies has shown that they are disproportionately higher in the informal sector (Arum & Eze, 2022). However, despite being major players, their impact has remained scarcely felt across the national economic horizon. The Nigerian economy is 60% driven by the informal sector (Olu-Owolabi, Amoo, Samuel, Oyeyemi & Adejumo, 2020) where women are the major players but the ability of these businesses to transit to larger scales has not been encouraging.

There is no doubt that there are barriers that are hindering the business run by women in the informal sector from performing at par with what obtains in other countries. Purnamawati and Utama (2019) pointed out that several of these women in the informal sector have not been able to participate and perform optimally as a result of their low level of education. It is on this note that various avenues are being sought around the world to give women the platform to perform well in business like their male counterparts and this is where technology becomes very important.

Technology which is the application of scientific findings in driving day-to-day activities has contributed to society's socio-economic transformation whether in the education, health or business sectors. However, this is dependent on the willingness and ability to apply vis-à-vis adopt these devices in any venture. Technology adoption is essential to harness the importance of technology whether at the individual or organizational level. Adoption is the decision to make full use of an innovation and as such, technological adoption is the willingness to make use of technological innovations in one's activities.

Juhász, Squicciarini and Voigtländer (2020) pointed out that the diffusion of innovation is at the core of aggregate productivity growth. This means that there is no business venture that can make competitive progress in today's digital world without the application of technological resources. Women in business especially in the informal sector have a lot to benefit if they learn to adopt existing technology in their line of business as this is expected to increase revenue, business visibility, efficiency among others. However, the adoption of technology by these traders will depend on their perceived usefulness, ease of use, compatibility among others (Plewa, Troshani, Francis and Rampersad, 2012) and this has remained challenging for some of these women to decide.

Technological adoption in business has to do with whether or not an individual makes use of available technologies in their line of business (Knowler, 2015; Ovwigho, 2013) and this uses can cut across different areas such as financial management, advertisement, networking among others. The ability to use this technology without hindrance is important for the performance of businesses operated by women in the informal sector (Sitorus, Govindaraju, Wiratmadja & Sudirman, 2016). It is only when these barriers are removed that the business run by women in the informal sector can perform well. Skoumpopoulou, Wong, Ng, and Lo (2018:209) pointed out that some of the advantages that will come with this technological adoption includes "competitive advantage, lower production and labour costs" and women must be assisted through every means possible such as adequate funding, training etc. to be able to increase their performance in their line of business for personal and national growth and development.

## Empirical Reviews

Several researchers have conducted studies that investigated how technology has been assisting business owners to improve on their productivity. One of such studies was an exploratory study by Rumanyika, Tedre, Apiola and Mramba (2019) on mobile technology usage for street traders' market search in Dodoma-Urban, Tanzania. The study used a qualitative methodology, gathering data from 29 street vendors through in-depth interviews and eight street vendors through focus groups. The data was examined using thematic analysis. The study's findings showed that using mobile phones to look for new markets is rarely done because of a number of issues, including high prices, technical difficulties, customer abuse of mobile contacts, and a concentration of related products in one area.

On the other hand, Goswami and Dutta (2016) used the Unified Theory of Acceptance and Use of Technology (UTAUT) Model to investigate e-commerce adoption by women entrepreneurs in India. The purpose of this study is to ascertain the degree to which women-owned small and medium-sized enterprises in India have adopted e-commerce applications, with an emphasis on the behavioral factors that encourage such adoption. The effectiveness of the constructs in influencing women entrepreneurs' adoption of e-commerce was assessed using the UTAUT model. Responses were gathered from 144 women entrepreneurs in two districts of Kolkata and 24 Parganas (South) in the Indian state of West Bengal through a field survey employing a structured questionnaire. The findings indicate that these women entrepreneurs' behavioral intention to use e-commerce is significantly influenced by three constructs: performance expectancy, effort expectancy, and social influence. Significant correlations have been found between experience and voluntariness to use as moderators with effort expectancy, facilitating conditions, and social influence.

On their part, Onyango, Ongus, Awuor and Nyamboga (2014) investigated the impact of adoption and use of mobile phone technology on the performance of micro and small enterprises in Kisii Municipality Kenya. In order to ascertain MSE owners' opinions regarding the uptake and application of mobile phone technology, a cross-sectional survey research design was employed. Stratified sampling was employed to determine the MSEs, and basic random sampling methods were utilized to choose respondents and locate questionnaires for data collection. With the help of the supervisors' and faculty members' expert advice, a split-half method of reliability estimation was employed to evaluate the validity and reliability of the research instrument. A questionnaire was used to gather data. Of the 3,500,282 people in the population, 400 owners of MSEs were included in the study sample. Following data collection, descriptive statistics like mean, percentage distributions, and frequency counts were used to analyze quantitative data. Field data was used to capture qualitative information, which was then transcribed and presented in themes and subthemes. The study employed multiple regression analysis to evaluate the correlation between the independent and dependent variables. The study's conclusions included the following: the performance of micro and small businesses is impacted by the adoption and usage of mobile phone technology.

## **Purpose of the Study**

The aim of the study was to investigate how technology adoption affects the performance of female traders in the informal sector in Oyo State, Nigeria. Specifically, the objectives of the study were to:

1. identify the sectors where female traders are concentrated in the informal sector in Oyo State, Nigeria.
2. ascertain the purpose of technology adoption among female traders in the informal sector in Oyo State, Nigeria.
3. determine the effect of technological adoption on business performance of female traders in the informal sector in Oyo State, Nigeria.
4. examine the factors hindering the performance of businesses operated by female traders in the informal sector in Oyo State, Nigeria.
5. determine the factors hindering technology adoption among female traders in the informal sector in Oyo State, Nigeria.
6. find out the strategies for improving technology adoption among female traders in the informal sector in Oyo State, Nigeria.

## **Research Questions**

The following research questions were answered in the study:

1. What are the sectors where female traders are concentrated in the informal sector in Oyo State, Nigeria?
2. What is the purpose of technology adoption among female traders in the informal sector in Oyo State, Nigeria?
3. What is the effect of technological adoption on business performance of female traders in the informal sector in Oyo State, Nigeria?
4. What are the factors hindering the performance of businesses operated by female traders in the informal sector in Oyo State, Nigeria?
5. What are the factors hindering technology adoption among female traders in the informal sector in Oyo State, Nigeria?
6. What are the strategies for improving technology adoption among female traders in the informal sector in Oyo State, Nigeria?

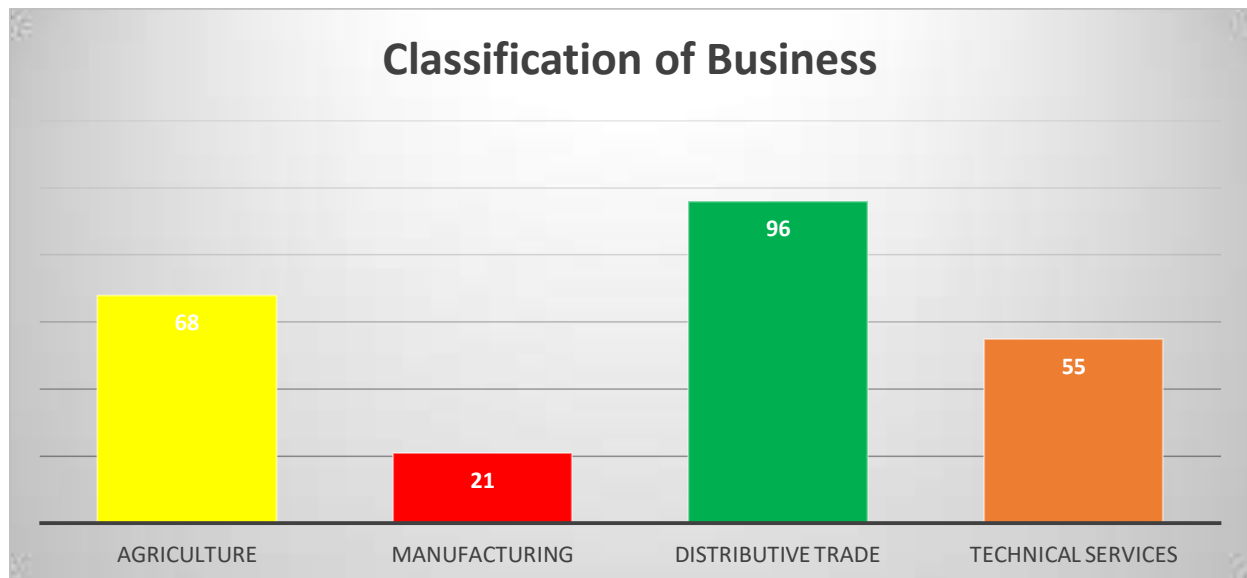
## **Methodology**

The study adopted descriptive survey design while the population of the study consisted of all the female traders in the informal sector who run micro businesses with employee size of less than ten people out of which 240 female traders were sampled using multistage sampling technique. Technological adoption in this study focused on women who have internet enabled mobile phones for use in their line of business. The first stage of the multi-sampling procedure involved the purpose selection of Local Government where the State Capital is located (city centre) and one rural local government in the State. This is to arrive at a mix of both urban and rural respondents. At the second level of the sampling procedure, the informal sector was stratified into four occupational areas which are Agriculture, Manufacturing, Distributive Trade and Technical Service. The third stage involved the use of systematic

sampling to select traders who are registered members of the associations overseeing their businesses. Instrument used for data collection was a structured questionnaire which was analyzed using descriptive statistics, frequency, percentage, tables and charts as well as inferential statistics (logistic regression).

## RESULTS AND DISCUSSION

### Sectors Dominated by Female Traders in the Informal Sector in Oyo State, Nigeria

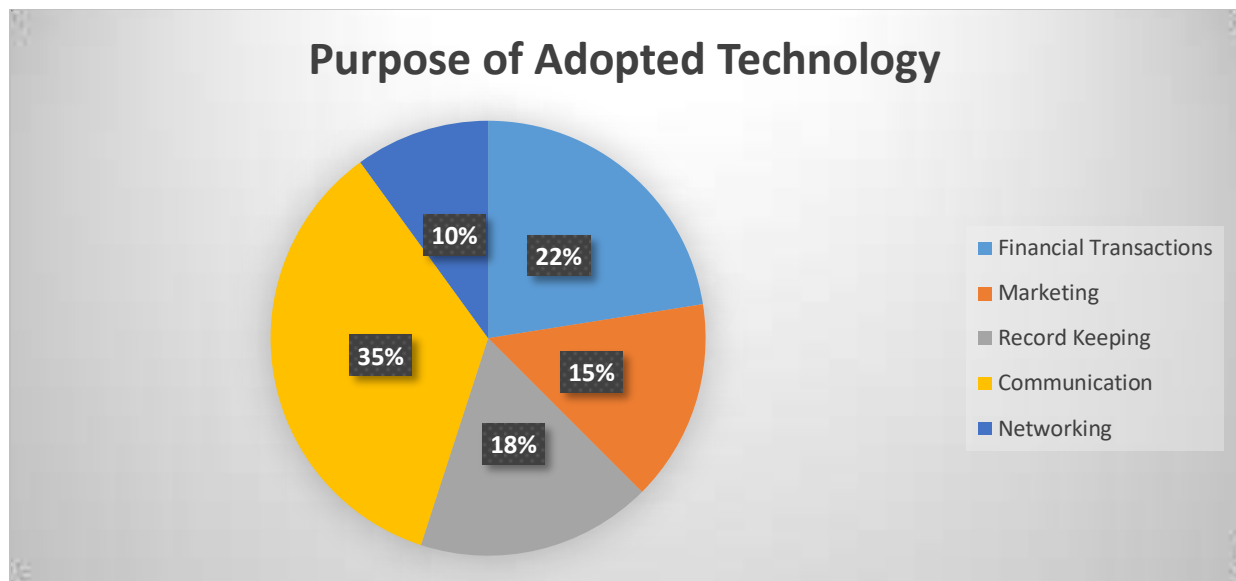


Source: *Fieldwork (2023)*

#### Fig. 1: Areas of Concentration of Female Traders in the Informal Sector

Fig. 1 above suggests the class of business operated by the female traders in the informal sector. In the study, majority of the respondents (96), were in businesses that are related to distributive trade. These are trade activities that has to do with distribution such as supermarkets, restaurants, sales of clothes and other apparels, online businesses among others. This was followed by 68 respondents who indicated that their business is in agriculture related areas. Those in technical services were 55 and this includes those who run technical businesses like dry cleaning, hair making, dress mending among others. Only 21 of the respondents are in the manufacturing sector and this includes those who are into bag/shoe production and the likes. Findings by Malik (2012) pointed out that factors such as family responsibilities, access to credit and human capital are reason why women do not go into manufacturing and this may be the reason why working in service driven sectors may be a better alternative for women working in the informal sector. The figure suggests that majority of the female traders in the informal sector are in the distributive area with very few in the manufacturing sector. This implies that there seem to be technical and administrative barriers which limits women's penetration into the manufacturing sector space which is a major potential for employment generation and sustainable growth and development for emerging countries like Nigeria.

## Purpose of Technology Adoption among Female Traders in the Informal Sector in Oyo State, Nigeria



**Fig. 2:** Purpose of Adopted Technology

**Source:** *Fieldwork (2023)*

In Fig. 2, the respondents indicated several areas in which their internet enabled devices are used in their businesses. From the responses of the traders, 39% of the respondents indicated that their internet device is used basically for communication and this was followed by financial transactions. This suggests that these traders use their devices mainly for sending and receiving messages as well as making financial payments. There are 18% of the traders who indicated that their device is used for record keeping while 15% used their device for marketing which includes advertisement of their goods and services and 10% used their devices for networking with relevant business stakeholders. This finding agrees with the outcome of the study by Rumanyika, Tedre, Apiola and Mramba (2019) which indicated that looking for new markets was rarely done by the respondents in the study area. This means that there are other business relevant activities that some of these traders are yet to engage in with the device at their disposal. The figure indicated that the traders used their devices mainly for communication and scarcely for networking as well as marketing. The table suggests that although the traders adopt technology for various aspects of their businesses, there are differences in the areas of usage. The use of digital technology for other social and communication purposes explains why the impact of these technologies on business perform remains fragmented. There is need for decisive sensitization and orientation of women in the informal sector on how their digital devices can be used for business related purposes, as this is the only ground upon which the impact of their digital adaptation can be felt on the performance of their businesses.

## Technological Adoption and Performance of Female Traders in the Informal Sector

**Table 1.** Drivers of Performance among Female Traders in the Informal Sector in Oyo State, Nigeria

			Score	df	Sig.
Step	Varia	Location_of_business	6.465	1	.011
0	bles	Type_of_business	2.590	1	.108
		Type_of_device	4.506	1	.034
		Income	23.140	1	.000

a. Residual Chi-Squares are not computed because of redundancies.

**Source:** *Fieldwork (2023)*

Table 1 showed that there are factors that contribute to the performance of the business run by the female traders in the informal sector. It was revealed in Table 1 that income was significant to the performance of the business run by the female traders and followed by the location of the business and type of device. This study agrees with that of McKenzie and Woodruff (2014) which established that lack of capital/income is the biggest challenge that prevents small businesses from growing. The implication of this is that the government and other regulatory agencies must find a way to support small businesses finally either in the form of providing tax incentives, grants or interest free loans as this is important to the transformation of small-scale businesses. Otherwise, these businesses will continue to struggle while others may outrightly fail. This suggests that the more the funds, the better the business run by female traders in the informal sector is likely to perform. However, the type of business was not significant determinants of business performance. This means that although these indicators are important to the business, they may not be significant to the performance of the business run by the female traders in the informal sector. This aligns with the result of the study by La-Porta and Shleifer (2014) which revealed that the type of business run by the entrepreneur, whether selling cloths or food etc. is not as important as the issue of capital in the process of growing and sustaining the business.

**Table 2.** Contribution of technological adoption to business performance

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	30.434 <sup>a</sup>	.443	.599

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

**Source:** *Fieldwork (2023)*

Table 2 indicated that the value of Cox & Snell R Square is 0.443 which suggests that 44.3% of business performance is associated with ownership of internet enabled device. This result is in tandem with the outcome of the study by Amoako et al., (2022) which equally pointed out that that is a large and significant effect of digital adoption on the performance of Micro and

Small Enterprises. (MSEs). On the other hand, the value of Nagelkerke R Square of 0.599 implies that 59.9% of the performance of the business operated by these female traders is associated with their ownership of internet enabled devices. However, both findings suggest that between 44.3% to 59.9% of the performance of the businesses operated by the female traders in the informal sector is determined by whether or not they own internet enabled devices in their businesses. This result agrees with that of Ali et al., (2020) which alluded to the fact that digital technology gives business entrepreneurs access to market information and sales which promotes the performance of female micro-owned enterprises. However, this is only possible when the entrepreneur use their devices for activities that are related to promoting their market base which is essential for business progression.

**Table 3.** Significance of technological adoption on business performance

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	Ownership_of_internet_enabled_device	4.043	1.149	12.390	1	.000	5.085
	Constant	2.655	2.116	10.905	1	.001	0.001

a. Variable(s) entered on step 1: Ownership\_of\_internet\_enabled\_device.

**Source:** *Fieldwork (2023)*

Table 3 revealed that at a p value (significance) of 0.000 which is less than the alpha value of 0.05, technological adoption significantly predicts the performance of trade among women in the informal sector in Oyo State, Nigeria. This means that increase in business performance is not attributed to random chance. However, the association is substantial with an Exp(B) value of 5.085 which implies that possessing an internet enabled devices increases the odds of achieving high business performance by about 5.085 times than those who do not possess it. This result suggests the use of internet enabled devices by female informal business operators in the State increases the chances of business performance which is needed for the transformation of their businesses. This finding aligns with the outcome of the study by Onyango, Ongus, Awuor and Nyamboga (2014) which revealed that the performance of micro and small businesses is impacted by the adoption and usage of mobile technology. Technological adoption is therefore a contributor to the performance of businesses across all levels.

### **Hindrances to Business Performance among Female Traders in the Informal Sector**

**Table 4.** Factors Hindering the Performance of Businesses Operated by Female Traders in the Informal Sector in Oyo State, Nigeria

		f	%	Valid %	Cumulative %
Val	Family Interference	30	12.5	12.5	12.5
id	Insufficient Fund	78	32.5	32.5	45.0
	Lack of Experience	24	10.0	10.0	55.0
	Poor Infrastructure	48	20.0	20.0	75.0
	Competition from bigger firms	36	15.0	15.0	90.0
	Technological Barrier	24	10.0	10.0	100.0
	Total	240	100.0	100.0	

**Source:** *Fieldwork (2023)*

Table 4 established that in terms of the factors hindering the performance of the business run by the female traders in the informal sector, 32.5% of the respondents believed that the problem of inadequate funding is the major reason why their business is not growing as expected and this was followed by 20% of the respondents who believed that the lack of infrastructure which could include good roads and other business facilities are responsible for the low performance of their businesses. On the other hand, 15% pointed out that competition from larger firms hinder their business growth while 12.5% of the women indicated that family interference hinder the expanding of their business. This means that family needs, expectations and demands may account for why the business run by female traders in the informal sector is not expanding as expected. There are 10% of the respondents who indicated that lack of experience and technological barrier are responsible for the low performance of their business. The low ranking of technology as a barrier suggests that the women do not see technology as a huge barrier and this is either because they are experienced in the use of technology or because they don't consider it necessary in business. The lack of experience on the other hand suggests that some of the women are running businesses they are not experienced in either as a means for survival or for other personal reasons. This no doubt affects the growth of their businesses.

Basically, it can be said that the problem of insufficient funding is one of the major challenges why traders in this sector are unable to adopt emerging technologies. The need for providing financial aid and incentives cannot be overemphasized if the government wish that traders embrace technology in their various lines of business. Access to funding will give these traders opportunity for further training, acquisition of tools and also maintenance of technological facilities at their disposal for efficient and effective service delivery. The society is therefore better off when these individuals are assisted to embrace best practices in their line of business.

## Hindrances to Technological Adoption among Female Traders in the Informal Sector

**Table 5.** Factors hindering the adoption of technology by female traders in the informal sector in Oyo State, Nigeria

		f	%	Valid %	Cumulative %
Va	Cost of Technology	120	50.0	50.0	50.0
lid	Usefulness of Technology	36	15.0	15.0	65.0
	Lack of Security	12	5.0	5.0	70.0
	Lack of Support	24	10.0	10.0	80.0
	Lack of Experience	48	20.0	20.0	100.0
	Total	240	100.0	100.0	

**Source:** *Fieldwork (2023)*

Table 5 indicated that 50% of the respondents indicated that the cost of technology was a major factor that hindered their adoption of technology in their line of business. This suggests that the cost of procuring an internet enabled devices and maintaining same may be responsible for why these female traders to not use available technology in their businesses. Ogujiuba et al., (2023) noted that financial challenge remains the major barrier to the growth of micro and small businesses and this means that even with a high level of digital literacy, the sustainability of these businesses may be hindered by the lack of financial resources. On the other hand, 20% of the respondents indicated that they lacked experience to use these technologies. This suggests the need for proper orientation on how some of these women can adopt technology in their line of business and this may be very essential especially for women in the rural areas. In the same manner, 15% of the respondents indicated that they are worried about the usefulness of the device, 10% indicated that they lacked support to use this technology while 5% indicated that they had issue with the problem of security in using technology in business. Generally, the outcome of this study agree strongly with that of Rumanyika, Tedre, Apiola and Mramba (2019) which indicated that high prices, technical difficulties and customer abuse of mobile contacts were major challenges in the adoption of technology in business. This suggests that there are both personal and societal factors that makes it difficult for these women to use technology in business and these factors no doubt need to be address for any progress to be made.

## Improvement of Technological Adoption among Female Traders in the Informal Sector

**Table 6.** Strategies for Improving Technological Adoption among Female Traders in the Informal Sector in Oyo State, Nigeria

		f	%	Valid %	Cumulative %
Va	Creating Awareness	60	25.0	25.0	25.0
lid	Training on ICT	114	47.5	47.5	72.5
	Digitalizing Business Process	18	7.5	7.5	80.0
	Providing Business Incentive	12	5.0	5.0	85.0
	Establishing Business Networks	36	15.0	15.0	100.0
	Total	240	100.0	100.0	

**Source:** *Fieldwork (2023)*

In table 6, the respondents pointed out that training on ICT is the major strategy for improving technological adoption among the female traders. This means that the traders alluded to the need for more training on how they can use their technological device in their line of business. There are 47.5% of the respondents that showed that training is essential for technological adoption and this was followed by 25.0% of the respondents who indicated the need for awareness for the adoption of technology in business. This study aligns with the outcome of the study by Adekola et al., (2024) which reported that which reported that the training components cannot be dissociated from the process of technology adoption for businesses to succeed even when they own digital devices. This implies that digital adoption goes beyond owning relevant digital devices to developing digital skills which is needed for digital proficiency that drives business performance and this must be undermined. This means that the traders believed that creating more awareness about the role of technology in business will go a long way to enable the women to adopt technology in their business. The strategies for adopting technology among the women also included creating business network at 15.0%, digitalization of business process at 7.5% and providing business incentives at 5.0% respectively. The female traders mentioned that these strategies are essential to promote their adoption of technology in their line of businesses. This result agrees with the findings of the study conducted by Goswami and Dutta (2016) which revealed that performance expectancy, effort expectancy, and social influence were major ways to promote technological adoption among traders and these expectations have to be put in place for any meaningful intervention.

## CONCLUSION

Adopting technology is significant to the performance of female traders in the informal sector and the adoption of technology can moderately increase the performance of the business raise by these women. However, there are factors that hinder the female traders' adoption of technology in business as well as hinder the performance of the business operated by these

women and these barriers must be removed for any meaningful programme to be made among female traders in the informal sector in Oyo State, Nigeria.

### Recommendations

The following recommendations were made based on the findings of the study:

1. The government in collaboration with trade union need to embark of massive awareness and enlightenment on the adoption of technology for business activities among women especially in markets and other commercial centres.
2. Government and the private sector need to invest in supporting female traders through training, financial incentive and provision of relevant tools that will help to improve the business environment and performance of the female traders.
3. Government needs to initiate programmes and projects that will attract more women into underrepresented sectors such as manufacturing and technical services where women are underrepresented and adequate training should be provided on the use of technology in these sectors for female traders in this sector.

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