

Socio-Economic Determinants of Pan-African Digital Payments Among Small Marketing Businesses

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Abstract

Several studies have focused on factors that influence adoption of innovation. Studies demonstrate that all innovations are not the same with innovations serving as units of analysis in most cases. However, the dearth of empirical literature, the focus of studies on the adoption of innovation by SME owners in southwest Nigeria, and the COVID-19 pandemic effect on SMEs provide a direction for this study in southeast Nigeria. Therefore, the study concentrated on the socio-economic determinants of small marketing businesses on intention to adopt PAPSS in Abia State and Anambra State. A structured questionnaire was used to collect the data from 369 small marketing business owners in different ventures in Abia State and Anambra State. Logistic regression was used to analyse the data. The results demonstrate that gender, education, type of business and experience are significant and have odd ratios of occurrence while experience has the most direct and significant likelihood to occur with additional experience. Therefore, the understanding of the socio-economic factors provides a direction on intention to adopt PAPSS and subsequent adoption.

1. Introduction

The role of SMEs in driving the economic development of any country has been documented in literature (Shareef et al., 2017). They play a significant role in employment generation (Eze & Chinedu-Eze, 2019) and represent about 96% of businesses (Tong et al., 2020). However, what is classified as an SME varies among countries. In Nigeria, the classification differs between micro, small and medium enterprises based on the number of employments, and assets that exclude land and buildings. However, the ability to innovate significantly differs among them yet innovativeness is an important aspect of SMEs. Innovation is at the base of the SMEs' growth especially in Nigeria's economy which is heavily a service economy (Eze & Chinedu-Eze, 2018). The support from the government in boosting the SMEs with policies, operational guidelines and financial support is essential for the development of the businesses. The support has impacted the rising investment in technology by small businesses such that it impacted their business operations (Eze et al., 2023).

There is a growing need by small business owners for innovative technologies that facilitate business operations (Eze et al., 2023). SMEs' demand for innovative payment systems is gaining prominence (Thisday, 2023) such that it is creating demand for better payment systems leading to a shift in user adoption (Nairametrics,

2023). There are a variety of e-payment channels in Nigeria but the interesting dimension is the 40% increase in adoption rate as of 2021 (Ojukwu, 2022) though it was a consequence of Nigeria's Naira crisis (Jaiyeola, 2023). With the unpredicted emergence of the COVID-19 pandemic, small businesses were affected yet to survive several of the small businesses engaged in cross-border commerce. Prior to COVID-19, the challenges of payments have been one of the burning issues for small businesses in engaging in regional trade. This is despite the rising demand for cross-border trade finance instruments by SMEs which was about a 37% demand rate (Kim et al., 2019). Although traditional trade instruments such as letters of credit are used by SMEs in West Africa (World Trade Organisation, 2022) the emergence of borderless digital payments as a resort during COVID-19 became more prominent for SMEs thereby leading to a preference for borderless payments (Borderless Payments Report, 2022). According to the Borderless Payments Report (2022), SMEs are unwilling to back down on the opportunity having experienced new benefits of cross-border customers and the provisions of digital payments that accelerated the cross-border payments that were light years ahead to present reality overnight. The business owners are finding it more attractive as the demand keeps rising following 72% usage patronage from SMEs (Borderless Payments Report, 2022).

In Africa, there are regional payment options such as Real Time Gross Settlement (RTGS), the East African Payment System (EAPS) and the Regional Payment Settlement System (RPSS) (AfricaNenda, 2022). Following the success rate of payment settlement in other regions, the Pan-African Payment and Settlement System (PAPSS) was innovated in 2021 for the West African Monetary Zone (WAMZ) and is pushing to achieve similar success with other payment solutions for SMEs. The goal of PAPSS is to significantly reduce the excessive reliance on third currency, facilitate instant receipts and payment in local currencies, significantly reduce transaction costs, and enable accessibility to African SMEs. The contributions of commercial banks such as Access Bank Group and UBA Group in adopting the payment system for SME settlement of transactions are helping to revolutionize WAMZ cross-border trade transactions (Moses-Ashike, 2023).

PAPSS is a brainchild of Afreximbank and the African Continental Free Trade Area (AfCFTA) purposed for African businesses that operate in Africa and intended to create a liberalised single market where non-tariff barriers are eliminated. The motivation is from the excessive reliance on third currency which directly leads to high cost and longer transaction time as well as the implicit effect of over 42 currencies in Africa where the majority are weak and volatile as legal tenders (Adefeko, 2021). The operation of PAPSS is as a clearing, processing and settlement of transactions such that a Nigerian SME would receive payment in Naira while a customer from another African country pays in their local currency while the deficit between the two currencies is settled by PAPSS. The real-time infrastructure and interoperability facilitate instant payment, money flow across borders in an efficient way such that regional financial integration is achieved and risks are minimised. According to Adefeko (2021), it will require the "interested buying party in another African country to issue payment instructions to beneficiary's bank or payment service provider. The beneficiary's bank or payment service provider will then pay the transferred funds in local currency to the beneficiary".

However, decisions on the direction of the SME businesses are often in the owners' hands (Eze et al., 2019). This is important following the advancements of technology adoption by owners in recent years to which studies such as Awa et al., (2015) and Eze et al., (2021) emphasised the increase of demographic factors leading to the adoption of innovation by SME owners. PAPSS is a novel digital payment. Extant empirical evidence suggests the existence of innovation factors that are capable of motivating the intention of users to adopt the innovation (Oloveze et al., 2023) while others indicate that innovation attributes influence users' intention to adopt payment innovation in a cashless market (Oloveze et al., 2022a), emerging market (Liebana-Cabanillas et al., 2020), m-commerce in the African context (Oloveze et al., 2022b) Studies reveal e-payment systems are not the same (Ramos-de-Luna et al., 2019) and acceptance is often a function of factors that can be significant in one clime but not significant in another clime (Rogers, 1983). Thus, the objective of the study is to discover the socioeconomic factors (Age of business, Business location, Experience, Type of Business, Education, and Gender) that influence small marketing businesses' intention to adopt PAPSS.

2. Literature Review

2.1 Socio-Economic Factors

Socio-economic variables have been evaluated from different perspectives in literature. It is a study that connects the understanding of economic activity in an organisation with the social processes that facilitate the shaping of economic activity (Qualtrics, 2020). In relation to SMEs, studies such as Kassa (2021) focused on factors related to the business and the owner such as the owner of the business, competition in the industry, education level, experience, inflation, business location, tax rate, business type, and access to finance. In other cases, it is classified to include social status, social expectations, job security, economic safety and social responsibility (Qualtrics, 2020). According to LaMarco (2018), the factors vary widely but are often anchored on the understanding of social economics particularly on changes in the society. The importance of these factors is that they can contribute to

better decision-making in directing the business when information about them on SMEs is available. In the context of the present study, the socio-economic factors that are considered include gender, age of business, experience and its level, education, and competition.

2.2 Gender

The discussion on gender in SMEs mostly focuses on the gender of the owner. The role of gender has resulted in several studies analysing the effect of gender in the adoption of innovation (Tufa et al., 2022; Kassa, 2021). One of the reasons is that gender influences the risk-taking capacity, strategic decision-making, capacity to shape technology adoption (Eze et al., 2021) and general decision-making of the management (Xu et al., 2017). Extant studies buttress the importance of SMEs' adoption of technology because of the differences in the rate of adoption between males and females (United Nation, 2014; Orser and Riding, 2018). Further, it is regarded as the foundation of decision-making and behavioural approaches of SME business owners (Hofstede, 1991). For instance, in some studies on gender and the adoption of technology, men were more associated with the usefulness of technologies than women (Venkatesh and Moris, 2000). Some years later women began to adopt technology (Olatokun, 2007). However, younger male business owners feel more comfortable in adopting technologies than the women (Eze et al., 2021), and they are also regarded as early adopters in most situations (Xu et al., 2017). In other studies, the relationship between ease of use, subjective norms and adoption of technologies is stronger among women than men (Orser and Riding, 2018). Thus, gaps exist in the adoption of technological innovations (Gaya et al., 2017). The implication is the focus on gender equality that is being buttressed in different fields of endeavour such as agriculture, business, education, banking and religion. This is buttressed by the assertion of Odewumi et al., (2018) that women the more disadvantaged in technology adoption compared to men.

2.3 The Age of Business

The age of the business in this research focuses on the number of years that the small marketing business has been in operation. Generally, there are first-mover advantages for small marketing businesses that are the first to innovate and introduce a product in the market. One of the benefits is brand recognition and loyalty (Corporate Finance Institute, n.d.). Similarly, small marketing businesses do not start operations at the same time. The length of years can probably impact the potential learning curve and experience of the business. In relation to the adoption of payment innovation, there is scarce literature that addresses this gap. A critical consideration in evaluating the age of business and adoption of technology calls for consideration of the size of the firm, availability and access to resources, innovativeness of the business owner and the vision and mission of the organisation.

2.4 Experience

Experience in business is one of the vital requirements for the success of business organisations. It is a concept that has gained the attention of professionals given its applicability in various fields. Experience is the impression carried by the user after being in contact with a product or service, which goes also forms or consolidates a perception (Carbone & Haeckel, 1994). It is perceived to be an attribute that is capable of shaping the adoption of innovation (Ho & Lim, 2018). It influences current behaviour where the previous experience is positive about an item (Fishbein and Ajzen, 1975) so that, higher use experience with previous innovations positively influences the adoption of similar innovations. However, Bilgihan et al. (2016) argue information on experience is fragmented. This is because of the variations in levels of experience of the top executives. According to Huang and Rust (2018), business owners' inexperience and poor knowledge of IT impact the adoption of technology. The implication is that a higher level of experience with innovation being stress-free helps in shaping the adoption of similar innovations (Kannan and Li, 2017; Eze et al., 2021). When the experience of the business owners with IT is high, the chance of SMEs adopting innovation is perceived to be high because of the understanding of the true potential of the innovation (Eze et al., 2021). Extant literature indicates a positive relationship with the adoption of innovation (Ho and Lim, 2018; Kübler et al., 2018; Eze et al., 2021).

2.5 Education

The perception of the impact of education on the adoption of technology is an important aspect of new technological systems. There is an expectation that users who are educated will adopt technologies. However, with education comes varied exposure to the attributes of the technology to the educated user such as in better understanding of the risk exposure, and more knowledge about the technology. Most models such as the Technology Acceptance Model (TAM), Technology-Organisation-Environment framework (TOE), and Diffusion of Innovation theory (DOI) did not factor in the impact of education on the adoption of new technology. However, it has been integrated into different studies such as the adoption of agricultural technology (Kafando et al., 2022) to buttress the important role it plays in adopting technologies. The level of education is important because of its ability to facilitate easier learning and understanding in the process of adoption. It is deemed to have an individual

context (Damanpour and Schneider, 2006) and a management strategy that facilitates innovation implementation within the organisation (Ferreira et al., 2015). According to Maina and Nzuki (2015), it is one of the vital aspects of the technology adoption process. In this regard, Namirembe and Kyobe (2021) considered it to be necessary to study to avoid the challenges associated with education, knowledge and technology adoption. Extant literature reveals that it can be used as a predictor (Mensah et al., 2020; Kafando et al., 2022) while others indicate its use as a moderator variable (Abu-Shanab, 2011). Studies such as Kafando et al., (2022), and Abu-Shanab (2011) reveal a positive relationship with the adoption of technology while Mensah et al., (2020) revealed that it is a significant predictor of intention to use technology services such as m-government service.

2.6 Intention to Adopt

The studies on electronic payment have been dominated by consumer adoption (Dahlberg et al., 2015). Particularly, there is a focus on intention to use innovations because of the direct impact it has on actual behaviour following the theoretical support from Ajzen and Fishbein (1977) and Ajzen (1991). It has been theorised to directly impact actual behaviour such as from the dimension of protection motivation theory (Rogers, 1983), cognitive theory (Bandura, 1997), and reasoned action approach (Fishbein and Ajzen, 2010). Studies indicate that it can effectively predict actual behaviour (Liebana-Cabanillas et al., 2018). Thus, it serves as the predictor of actions (Lee, 2020). It provides useful knowledge on the influence of attitude on actual behaviour (Huang et al., 2004) especially when the technology is a novel one. This is because it provides a foundation for understanding the acceptance of innovations such as established by the theories of technology acceptance model and diffusion of innovation theory. Several studies dealing with electronic payments used it as a dependent variable (Kalinic et al., 2019; Liebana-Cabanillas et al., 2020; Ramos-de-Luna et al., 2019).

2.7 Theoretical Underpinning

Several studies adopt different theories in explaining and predicting the adoption of e-payment systems. The key theories are often the technology acceptance model, the theory of reasoned action, the theory of planned behaviour, the unified theory of acceptance and use of technology, and the diffusion of innovation. However, there are criticisms against the use of the theories (Eze et al., 2023) such as the consideration of behaviour rather than the actions to the behaviour (Benbasat & Barki, 2007) and attitude and adoption decisions (Chian-Son & Yu-Hui, 2009). These models are argued to miss the dimension of users' demographic composition as antecedents in adoption (Eze et al., 2023) while others justified the inefficiency of a single theory in predicting adoption (Van de Ven & Poole, 1995). This has often led to the modifications of theories to fit contextual studies. Thus, TOE theory that examines the technology and the environment viz-a-viz the demographic contexts was considered. This is vital because the demographic composition of owners of businesses often impacts the adoption of technologies (Eze et al., 2023). These are confirmed in extant literature (Awa et al., 2015a, b). Further, the applicability of the TOE framework often connects with small businesses' context of understanding its management's support and physiognomy, business owners' characteristics and drive to adopt innovation (Eze et al., 2023). The implication is that it helps to consider the size of the business, demographic features of managers and other external drivers that impact the adoption of technology.

3. Methodology

Specifically, this is a cross-sectional survey. Extant literature revealed its appropriateness in evaluating the adoption of electronic payments (Kabir et al., 2017; Oloveze et al., 2023). The data was collected using a structured questionnaire and mall intercept on the owners of small marketing businesses at the markets in South East Nigeria where the big international markets were located. The items were majorly structured in binary form while others such as education, age of business, and experience were captured with discrete numbers. Face validity was adopted to ensure good coverage of the questionnaire in line with the objectives of the study. Content validity was adopted following the recommendation of Taherdoost (2016) and Lawshe (1975) and applied in survey studies in the African context (Oteh et al., 2022; Oloveze et al., 2022). The approach relied on the content validity ratio (CVR) and a set of experts' essential inputs. In the study, ten experts were used to validate the research instrument. Nine essential inputs were returned from the experts which represents 0.8 CVR value following the recommendation of Taherdoost (2016). According to Lawshe (1975), 0.78 is the minimum acceptable threshold for nine experts. In this regard, the validity of the instrument was justified.

The questionnaire was self-administered using mall intercept and also collected online using a questionnaire designed on Google form. The link was made available and shared through social media (Facebook and WhatsApp). Thus, a mix of purposive sampling and snowball sampling was adopted. Purposive sampling ensures the appropriateness of respondents as two states in the region with the international markets were selected while snowball enabled reaching the other respondents that were challenging to reach out. 369 valid forms were used after screening the 4 inappropriate ones. This represents a 97% response rate. Saunders et al., (2009) and Oteh

et al., (2021) justify its adequacy following the recommendation of 50-70% adequacy in the literature. The data was analysed using logistic regression. It is useful when investigating the association between predictor variables that are either categorical or continuous and a dependent dichotomous variable. It helps to discover the odds ratio of events occurring (Oteh et al., 2022). Thus, the logistic model encompasses the use of dichotomous values especially for the dependent variable (Intention to adopt) and discrete/dichotomous values for the independent variables. Similar studies that focus on demographic dimensions such as Oteh et al., (2021) consider its appropriateness in analysing the data. The model is specified as:

$$\pi(X) = \frac{1}{1+e^{X\beta}} \text{ and was specified in the research as:}$$

$$\log \left\{ \frac{\pi(Y)}{1-\pi(Y)} \right\} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \dots + \beta_m X_m$$

Where:

Y = Intention to adopt (Dummy: 0 = Yes, 1 = No)

π = The probability of intention to adopt PAPSS

β_i = Regression coefficients associated with the reference group

X_1 = Gender (Dummy: 0 = Male, 1 = Female)

X_2 = Level of education (Years spent in school)

X_3 = Age of business (Years)

X_4 = Type of business (Dummy: 0 = Agricultural products, 1 = Apparel, shoes and Accessories,

2 = Building, construction and accessories, 3 = Cosmetics and healthcare,

4 = Manufacturing, 5 = Medical and veterinary)

X_5 = Experience with e-payment (Years)

X_6 = Business location (Dummy: 0 = Abia Aba-Ariaria, 1 = Abia Aba-Ekeoha Shopping Plaza,

2 = Abia Umahia-Urban Main market, 3 = Anambra Onitsha-Main market, 4 = Anambra

Eke-Awka Main market, 5 = Anambra Nnewi-Nkwo market)

(1)

4. Result and Discussion

The composition of the gender from Fig. 1 revealed a dominance of the male gender (91.87%) in the study with further indication that small marketing businesses are dominated by male owners. 8.13% female composition is small compared to the male representation. Arguably, the result mirrors the subsisting ownership structure in Nigeria with men majorly involved in small-scale businesses (SMEDAN, 2013). This is further deepened by the higher rate of employment of men (12.8 million) to women (3.2 million) in SMEs (Sasu, 2022) while studies such as Ojinta (2018) revealed the level of gap of about 35% female involvement in entrepreneurial ventures in Nigeria despite taking more than half of Nigeria's population. In regards to financial inclusion, women's involvement in Nigeria's payment system is argued to be poor compared to the men (Demirgüç-Kunt et al., 2018). The indication with this evidence is that the result from the research aligns with reality and projects the dominance of the male gender in small-scale business over the female counterpart.

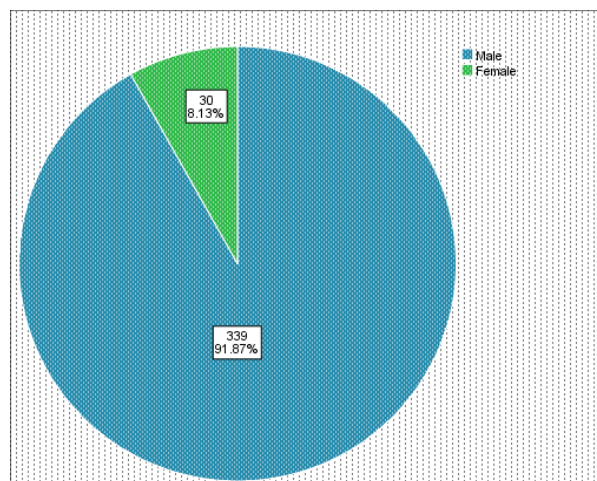


Fig. 1 Gender

The type of small marketing businesses that participated in the research is represented in Fig. 2. Following the frequency distribution, the small marketing businesses in fashion and accessories sales (153 responses at 41.5%) are the highest participants in the research. The small marketing businesses that deal in Agricultural

products sales and services have the second highest representation in the research (97 responses at 26.3%). The small marketing businesses in manufacturing have 45 responses at 12.2%. These are the major small marketing businesses that participated in the research in the study area. The others include Cosmetic sales and services (28 responses at 7.6%), Building and accessories sales (24 responses at 6.5%) and Medical and veterinary products (22 responses at 6.0%). The result projects the study area to be majorly an area with fashion taste and interest in fashion (apparel, shoes and clothing) but also with investments in agricultural products and small-scale manufacturing.

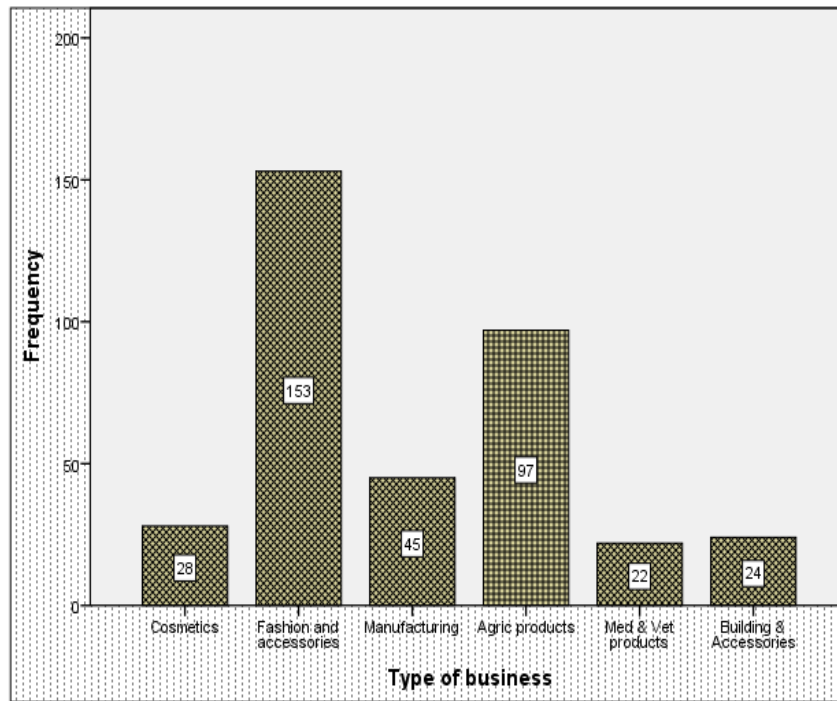


Fig. 2 Type of business

The result in Fig. 3 indicates differences in the small marketing businesses' intention to adopt PAPSS. Arguably, this supports the differences that exist in human behaviour towards new things. Some respondents positively affirmed their intention to adopt the innovation (226 responses at 61.2%) while others reported no response (143 responses at 38.8%). The result suggests that more small marketing businesses in the research would intend to adopt PAPSS if it is better than the payment option they use for international commerce payments.

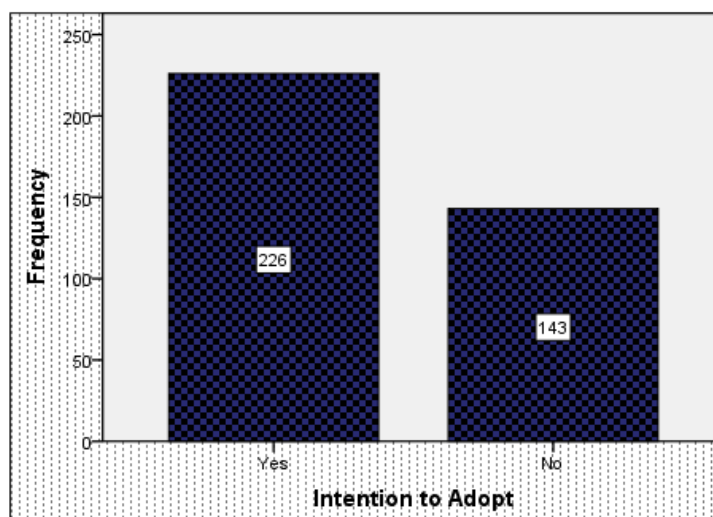


Fig. 3 Intention to adopt

Table 1 further revealed the socio-economic profile of the small marketing businesses that participated in the research. In the category of education, the number of years spent in school by the owners of the small marketing businesses was represented. About 63.4% of small marketing business owners have spent a maximum of nine (9) years in school. Going by the Nigerian school system this would imply that the owners of small marketing businesses have primary school education at least. About 36.6% of the owners of the small marketing businesses have spent a higher number of years in school thereby implying that they have comparably better formal education. The implication is that in the Nigerian education system, the least educational qualification is a secondary school certificate. However, the mean of the education is 10.14. This reveals that on average, small marketing business owners have spent ten (10) years in school. This portends good basic education in at least being able to communicate in reading and writing.

Table 1 Socio-economic profile

SN	Variables	Frequency	Percentage
1	Education (Years spent in school)		
	Primary	25	6.8
	Secondary	206	55.8
	Tertiary	126	34.1
	Total	369	100
	Mean	10.14	
2	Age of Business (Years)		
	1 – 3 Years	264	71.6
	4 – 5 Years	105	28.4
	Total	369	100
	Mean	2.98	
3	Experience (Years)		
	3 – 6 Years	79	21.5
	7 – 10 Years	290	78.5
	Total	369	100
	Mean	7.86	

The age of business that was measured in years revealed that about 71.6% of the small marketing businesses operate businesses that are at most three (3) years old while about 28.4% of the small marketing businesses have been in business for about 4 – 5 years. The mean is 2.98 which implies that on average the small marketing businesses have been operated for about three (3) years prior to the research.

The category on experience with e-payment channels among the small marketing businesses revealed that about 78.5% have better experience given their 7 – 10 years' experience compared to the ones with 3 – 6 years' experience (21.5%). The mean value suggests that on average the small marketing businesses in the study area have about 8 years' experience in using e-payment options in their business transactions and payment.

4.1 Data Analyses

Decision Rule: Reject H_0 if $F\text{-cal} > F\text{-tab}$ at 5% level of significance with q (df of the numerator) and $n-k$ (df of the denominator) otherwise do not reject H_0 .

Table 2 Logistic regression result

Variable	β	S.E	Wald	Exp(B)	Sig.	Model summary
Constant	0.370	0.864	0.183	1.448	0.668	
Gender	-2.018	0.627	10.363	0.133	0.001	
Education	-0.123	0.042	8.716	0.884	0.003	
Age of Business	0.014	0.093	0.021	1.014	0.884	
Type of Business	-0.181	0.086	4.458	0.834	0.035	
Experience	0.146	0.070	4.336	1.157	0.037	
Business Location	-0.037	0.068	0.294	0.964	0.588	
-2 Log likelihood						460.494

Cox & Snell R square	0.084
Nagelkerke R square	0.113

The result from Table 2 comprises the odd ratios, the significance levels and the goodness-of-fit statistics. The result revealed that Gender, Education, Type of Business and Experience are the socio-economic factors that are significant. The parameter estimate for Gender is -2.018 thereby describing a negative relationship. Generally, an odds ratio of less than 1 describes the negative relationship. Therefore, it simply shows that as gender increases the odds of intending to adopt PAPSS reduce. In other words, the odds ratio of gender (0.133) reveals that a unit change in gender will lead to the intention to adopt PAPSS being less likely to occur. Further, based on the coding of male = 0, and female = 1 in the research data, the result indicates that for a unit increase in gender, there is less likelihood of female owners of small marketing businesses intending to adopt PAPSS.

Education variables reveal that for a unit increase in education, the parameter is equal to -0.123 after controlling for the influence of other variables. However, the odds ratio is 0.884 thereby suggesting that a unit change in education leading to the intention to adopt PAPSS is less likely to occur.

The result on the type of business indicates that for a unit increase in the type of business, the parameter is equal to -0.181 holding other variables constant. The odds of occurring is 0.834 implying that a unit change in the type of business will less likely lead to a change in intention to adopt PAPSS.

The parameter value for Experience is 0.146 thereby indicating that a unit increase in experience will lead to an increase in intention to adopt PAPSS holding other variables constant. The odds ratio of occurring is 1.157 which suggests that a unit change in experience is predicted to grow by 1.157 times larger for additional experience with e-payment. The implication is that where small marketing businesses differ in experience, the odds ratio suggests that the one with superior experience has a predicted odds ratio of intending to adopt PAPSS than the ones with less experience.

The Cox & Snell R² and Nagelkerke R² are useful in checking the goodness of fit. The values of Cox & Snell R² (0.084) and Nagelkerke R² (0.113) show the fit of the data. These values indicate a weak relationship between the response variable and the explanatory variables. However, the low R² in social sciences still represents a good model following an inherently more significant amount of unexplainable variation in human behavior (Frost, 2019). The final logistic regression model is stated as:

$$\log(p/1-p) = .370 - 2.018*Gender - 0.123*Education - 0.181*Type\ of\ Business + 0.146*Experience$$

The data was analysed using logistic regression. Out of the six (6) variables, four (4) variables were significant. The significant variables are gender, education, type of business, and experience.

Firstly, the significant result of gender indicates while gender is significantly associated with the intention to adopt PAPSS yet the odds ratio revealed that any unit change in gender is less likely to lead to the intention to adopt PAPSS occurring. The negative sign to the result of gender is consistent with Eze et al., (2021) in which the authors concluded that the gender of the owners of SMEs has a significant effect on innovation adoption but the authors rejected the result following the negative sign to gender. Following that the analysis was done using hierarchical regression the result is not consistent with reality. However, in the context of the present research that was analysed using logistic regression, the negative sign and the odds ratio simply indicate that any change in gender is less likely to cause intention to adopt to occur. In other words, the result suggests that with the coding of male as 0 and female as 1 and the consequent negative sign to gender, the result implies that the female owners of small marketing businesses are at lesser odds of intending to adopt PAPSS. Therefore, an increase in gender implies being a female owner of small marketing businesses corresponds with lower odds or likelihood of intending to adopt PAPSS. This result is consistent with Li et al., (2017) and Hashim (2007) but not with Eze et al., (2021). The result reveals that when the ownership of small marketing businesses is put in context on intending to adopt PAPSS, the chance of female executives adopting the innovation is less likely to occur. Gender has been proven to impact the intention to adopt innovations (Hoque et al., 2024). In this research, the role of gender confirms the important role it plays in intending to adopt PAPSS. With the result suggesting lower odds of intending to adopt from the female owners of small marketing businesses, the pointer is that the male owners tend to be positive on intending to adopt PAPSS. This aligns with the extant studies on the male gender being more likely to be early adopters of technology (Xu et al., 2017) while studies suggest a wide gap with female SME owners in adoption of technology. For instance, the female gender is argued to be disadvantaged in technology adoption than males (Odewumi et al., 2018). The findings of the research reveal alignment with existing patterns. This can also be connected with the inadequate willingness of the female gender to become entrepreneurial and the already existing financial exclusion that is higher among the female gender than the male gender. Female gender with entrepreneurial career are less compared to men (Elam et al., 2019) as more female gender tend to prefer paid employment to self-employment.

The result of education has a significant result. The negative sign and the odds ratio imply that any change in education is less likely to lead to the intention to adopt PAPSS occurring. The implication is that education can impact the intention to adopt PAPSS but any change in education has lesser odds of causing intention to adopt

PAPSS to occur. The result corroborates earlier findings on the influence of education on technology adoption (Eze et al., 2021; Ho & Lim, 2018; Kafando et al., 2022) but differ from other studies (Melumad et al., 2019). The role of education in small businesses is encompassing. It is fundamental in influencing enterprise growth (Meres, 2018), risk prediction (Kassa, 2021) and survival of business ventures (Yonis et al., 2018). In this context, the finding corroborates the impact and importance of education on the impact of small marketing businesses in payment innovation like PAPSS. With the average education level being about 10 years (About Secondary School level), this translates to at least basic education for the owners of small marketing businesses. The significance is that education impacts the intention to adopt PAPSS. However, further increases in intention to adopt payment platforms do not translate to more occurrences rather what the result of education suggests is that the intention to adopt PAPSS only requires basic education. Generally, education impacts competence, skill and knowledge in navigating firms during turbulent times. This often leads to the disparity between well-educated small business owners and not-too-educated small business owners in being innovative. However, the finding merely suggests the impact of education on intention to adopt PAPSS or payment innovation but a less likelihood of further intentions to adopt occurring.

The type of business is also significant but negatively related to the intention to adopt PAPSS. The implication of the negative sign and the odds ratio being less than 1 is that while there is a significant impact on the type of businesses significantly influencing intention to adopt PAPSS in the business, further increases are less likely to cause intention to adopt PAPSS to occur. The result merely suggests that the types of businesses in the research displayed an intention to adopt PAPSS. This buttresses the realisation of the important role of payment innovation in their business transaction. Therefore, further increases in type of business adopting the payment innovation will less likely lead to further intention to adopt it. Thus, it is more of acceptance or rejection.

The role of experience of the owners on the use of e-payment channels reveals a positive and significant relationship with intention to adopt PAPSS. The positive sign and the odds ratio that is greater than 1 suggest that the increase in experience has a higher odds ratio of intention to adopt PAPSS occurring. The finding supports the role of experience in businesses. This corroborates findings from extant literature (Ho and Lim, 2018; Kübler et al., 2018; Eze et al., 2021). Further, the mean of experience suggests that on average small marketing businesses have about 8 years' experience in the use of e-payment channels in their business financial transactions. With the experience of e-payment channels and their usage, the intention to adopt PAPSS is enhanced. The driving motivator is the previous knowledge the owners of small marketing businesses have about payment channels as its convenience, benefits and opportunities it offers resonate with the owners in appreciating the relative advantage of PAPSS. Therefore, the more experience small marketing businesses have in the use of e-payment options in their businesses, the likelihood of intending to adopt PAPSS will occur because of the previous experience and impacts of related payment innovation in their day-to-day business financial transactions.

5. Conclusion, Recommendation and Future Lines of Study

Gender, Education, and Type of business have significant effects on small marketing businesses' intention to adopt PAPSS but lesser odds ratios of occurring with a unit change in any of the variables. Experience has a positive effect on small marketing businesses' intention to adopt PAPSS and an increased likelihood of the intention to adopt PAPSS occurring when there is a unit change in experience. From the findings, it is evident that the major perspective of the potential users of PAPSS is on experience which has positive change with the increase in the level of experience. Therefore, the actual adoption of PAPSS will depend on the perspectives of the potential users by devising means that will help to change the habits of the owners of small marketing businesses. Experience comes with time. In this regard, initiatives that adopt marketing campaigns and strategies to convince potential users with financial transactions will be most beneficial in moving them from the intention to adoption to the actual adoption. However, one of the key limitations of the study is the methodological approach which involved the use of cross-sectional survey. Though the approach is appropriate in research yet in this research it prevented the long-term analysis of small marketing businesses' behaviour. Behaviour is often a consequence of several factors such as experience which comes through time. Therefore, the use of a longitudinal study will offer the chance to verify the robustness of the relationships and interaction effects. On the grounds of the limitations and the focus of the study on behavioural intentions, future studies can focus on the actual usage which would require extending the behavioural intentions of the small marketing businesses to the innovation to the actual adoption behaviour since behavioural intention is not a proximate cause of behaviour.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of the paper.

Author Contribution

*The authors confirm contribution to the paper as follows: **study conception and design:** Oloveze, A.O., Oteh, O.U, Ibok, N.I.; **data collection:** Oloveze, A.O., Chukwuoyims, K, Onya, V.O.; **analysis and interpretation of results:** Oteh,O.U., Obasi, R.O., Chukwuoyims, K.; **draft manuscript preparation:** Oloveze, A.O., Ibok, N.I., Obasi, R.O. All authors reviewed the results and approved the final version of the manuscript.*

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