Beyond Intention to Use: What Motivates M-Payment Users?

Ambrose Ogbonna Oloveze (M.Sc)
Department of Marketing
Michael Okpara University of Agriculture
Umudike, Abia State
08063463044
oloveze.ambrose@mouau.edu.ng,

Kelvin Chukwuoyims (Ph.D)
Department of Business Administration
Alex Ekwueme Federal University
Ndufu-Alike Ikwo, Ebonyi State
08104169192
alphahedgeinc@gmail.com,

Roseline Ali Oko (Ph.D)
Department of Banking & Finance
Alex Ekwueme Federal University
Ndufu-Alike Ikwo, Ebonyi State
okoroseline9@gmail.com,

Chinweike Ogbonna (M.Sc)
Department of Marketing
Nnamdi Azikiwe University
Awka, Anambra State
07060702501
chinweikeogbonna@gmail.com,

Kafayat Arinola Aliu (M.Sc)
Department of Accountancy
Alex Ekwueme Federal University
Ndufu-Alike Ikwo, Ebonyi State
Arinola.aliu@gmail.com

and

Obasi Ozoemena Raymond (Ph.D)
Department of Marketing
Michael Okpara University of Agriculture
Umudike, Abia State
08033132106
raybasi@yahoo.com

Abstract
The rising digital innovation and rapid increase in facilitative instruments are calling for attention on continuous adoption of m-payment given the consistent growth. There is paucity of literature on continuance intention to adopt the innovation while few attempts in Nigeria focused on usage of acceptance models which is inappropriate in evaluating continuance intention of m-

payment users. This is significant because all innovations are not exactly the same. The objective of the study was to analyse the key motivators of m-payment users towards continuance intention toward the payment system. Using online survey approach, structured questionnaire was designed with adapted measurement items that were scaled using 7 point Likert scale. Confirmatory factor analysis was used to assess the reliability and validity while structural equation model was used in testing the structural relationships. The result indicated that perceived usefulness is the strongest direct and indirect predictor of continuance intention to use m-payment. The implication of the results bordered on banks, merchants and manufacturers of internet enabled mobile devices especially on strategies to deepen m-payment knowledge and influence post-adoption behaviour. The significance of subjective norm implies that external influences are vital in continuance intention studies. The key limitation of the study was the use of cross-sectional design and the sample size that calls for caution in generalisation of the findings. It was recommended that marketing communication strategies should be channeled towards emphasising the usefulness of m-payment while appropriate measures need to be adopted by manufacturers of smartphones and mobile phones to deepen its utility and value to individuals and businesses.

Keywords: M-payment, cashless market, user behaviour, expectation-confirmation-model, continuance intention.

Introduction
Recently, there has been a rapid change in global smartphone ownership and mobile payments (Acker & Murthy, 2020). This is a consequence of rising demand for cashless payment innovations (Alkhowaiter, 2020). M-payment is gaining wide acceptance among many societies (Linglingm et al., 2018). Several consumers are utilizing m-payment in their purchases due to the benefit of reduced use of cash (Pham & Ho, 2015), convenience and time savings (Liebana-Cabanillas et al., 2018), flexibility and higher efficiency (Cao et al., 2018), enhancement of banking culture among consumers (Suyunchaliyeva, Nautiyal, Shaikh & Sharma, 2021) and the possibility of impacting financial inclusion (Mishra et al., 2021). The benefits cut across businesses and consumers (Ramos-de-Luna et al., & Gil-de-Luna, 2017).

M-payment is the use of mobile devices such as smartphones and personal digital assistants in cashless payment system to conduct online commercial transaction. It involves financial transaction that is conducted through mobile devices (Singh et al., 2020) such as the ones implemented through short message service (SMS), m-wallet, and quick response codes (Alswaigh & Aloud, 2021). Generally, studies indicate that any payment system that is facilitated by internet enabled mobile devices is m-payment (Liébana-Cabanillas et al., 2019). M-payment can be classified by type of service, type of technology that is used, and the purpose (Innopay, 2009) though Forrester (2017) grouped m-payment in United States into in-person, remote, and peer-to-peer m-payments. However, CBN (2009) provides m-payment types in Nigeria to include the following but not limited to: Secure SMS, USSD, and WAP/GPRS. Some of the top m-payment gateways used are WebPay, Remita, and Interswitch (Dairo, 2019). Furthermore, the system of m-payment in Nigeria deals with different components that assist in rendering m-payment to banked and unbanked community (CBN, 2009). It covers bank focused model, bank led model, and non-bank led model that aids its implementation.

Nigeria is the 7th most users of mobile devices globally (StearsBusiness, 2020) with170 million mobile internet subscriptions as at 2020 (O'Dea, 2020). 82.6% increase in mobile transactions was recorded in Nigeria in 2020 with 78% of instant payments attributed to mobile devices (Nairametrics, 2021). As at 2020, the preference for m-payment contributed to total payment transactions with 43% increase (Nairametrics, 2021). NIBSS asserts it as a level of consistency in growth and adoption (Idris, 2020). Transaction through m-payment is estimated to reach $14

trillion by 2022 (Ferderick, 2021). The continued rise in adoption is associated with COVID-19 pandemic (Idris, 2020). However, the subscriptions are majorly spread across only 10 states with statistics in excess of 50% (StearsBusiness, 2020). This suggests that the potential source of m-payment users in Nigeria majorly emanate from ten states that include Lagos, Ogun, Kano, Oyo, FCT, Kaduna, Rivers, Delta, Edo and Niger. Though the statistics indicate a poor spread in a nation with 36 states and the federal capital territory (FCT), however it informs a direction of adoption of m-payment and its diffusion in the nation. This is a pointer to where investments are required and where opportunities could be exploited by managers and entrepreneurs.

Several studies have approached m-payment from perspectives of m-money, m-wallet (Chandradasa & Liyanapathirana, 2021), technical innovations such as WeChat pay and Alipay (Sleiman et al., 2021), contactless payment technologies such as near field communication, Applepay, Samsungpay, and Androidpay (Ramos-de-Luna et al., 2017) and digital payment applications that utilize mobile devices in financial transactions (Suyunchaliyeva et al., 2021). The focus on acceptance in most societies is because of poor adoption by consumers and businesses (Park, et al., 2019). The application of technological acceptance model (TAM) (Qu, et al., 2018; Kalinic & Marinkovic, 2017) and its extensions (Ramos-de-Luna et al., 2017) are majorly used in most of these studies. However, models such as TAM are considered inappropriate in studying continuance intention (Dağhan & Akkoyunlu, 2016) while the dynamics of African emerging economies and paucity of literature on continuance studies in the area call for attention given the rising digital innovation and rapid increase in facilitative instruments such as smartphones ownership.

Integrating variables from other models such as theory of reasoned action (TRA), TAM and expectation confirmation model (ECM) will help understand the continuance intention of users. A number of factors have been established in literature to predict continuance intention. Key constructs from ECM such as satisfaction, confirmation, and perceived usefulness have been used to analyze continuance intention (Tsai et al., 2020). Other studies have integrated the constructs of TAM to ECM (Tsai et al., 2020), ECM constructs and constructs of theory of planned behaviour (Zhong et al., 2015) in continuance intention studies. This underscores the point of modifications on the original ECM in an attempt to analyze users' continuance intention towards an innovation.

The significant contribution of this article is three-fold. First, the focus of earlier studies has largely been on acceptance of m-payment with little emphasis on users' intention to continue using the innovation (Liebana-Cabanillas et al., 2018). Second, studies on continuance intention of m-payment users used unified theory of acceptance and use of technology (UTAUT) (Odoom & Kosiba, 2019), TAM and its extensions (Hossain et al., 2018) with few studies considering ECM and integrating its variables (Liébana-Cabanillas et al., 2021). Studies show that it is inappropriate (Franque et al., 2020). Third, studies on m-payment from developed nations show that different factors motivate its adoption (Pal et al., 2020). M-payment acceptance studies in emerging economies exist (Liebana-Cabanillas et al., 2020) but continuance intention studies on emerging economies are limited (Pal et al., 2020) particularly African emerging economies (Odoom & Kosiba, 2019). This study is significant because all innovations are not exactly the same such that the influencing factors can differ between innovations (Ramos-de-Luna et al., 2019). Therefore, this study aims to integrate the constructs of ECM, TRA and TAM to a proposed model for the purpose of analysing factors that motivate continuance intention to use m-payment.

Research Model and Literature
ECM is widely used in literature to study continuance intentions of consumers (Tsai et al., 2020). It was proposed by Oliver (1980) and modified by Bhattacherjee (2001) to understand consumers' continuance usage of information technology and their decisions regarding repeat purchases. The

theory is anchored on key constructs of satisfaction, confirmation, and perceived usefulness (post-adoption-expectation). Specifically, it points to consumers' confirmation of previous expectation with post adoption expectation to determine how satisfied they are and chances of repurchase. On the other hand, TAM is widely used to study acceptance of innovation. It was proposed by Davis (1989) to explain behavioural intentions to accept innovation using constructs of perceived usefulness, ease of use and attitude. With several modifications on TAM, a number of constructs such as subjective norm from theory of reasoned action have been added in recent studies (Ramos-de-Luna et al., 2019). The use of subjective norm in literature has provided grounds to understand the nature of influences from other's based on an individual's expectation of what they think about technology adoption.

Confirmation
Confirmation is a key construct of ECM. It is the 'user's perception of the congruence between the expectation of information system (IS) use and its actual performance' (Bhattacherjee, 2001 p.359). According to the author, it is fundamental in predicting usefulness, satisfaction and continuous usage of information system. In m-payment, it is a positive congruence of initial expectation and actual expectation (Talwar et al., 2020). It happens when the individuals' outcome experience from using the innovation meets or exceeds expectation (Alraimi, et al., 2015). Such comparisons on previous expectation and post-usage benefit occur in the mind of the individual to the extent that it leads to confirmation or disconfirmation (Bölen & Özen, 2020). This is significant because in m-payment the impact on individuals' psychological condition can lead to individuals' feeling of satisfaction or dissatisfaction (Sasongko et al., 2022). Confirmation occurs when a user has matched the initial expectation from m-payment with actual expectation or experience. Importantly, when the initial expectations of m-payment users are met, they will positively confirm it. When it is not met, they will negatively confirm it. Its impact is validated in other technological innovation studies to directly influence user satisfaction (Tsai et al., 2020) and perceived usefulness (Talwar et al., 2020). If the usefulness is not confirmed during acceptance stage, cognitive dissonance sets in (Bhattacherjee, 2001). Users respond to this situation by minimizing the effect and adjusting their perceptions to fit into reality (Nascimento & Oliveira, 2016). It is hypothesized that:

H1: Confirmation of m-payment positively influence satisfaction
H2: Confirmation of m-payment positively influence perceived usefulness

Perceived Usefulness (PU)
PU is an original construct of TAM that is central to the adoption of technological innovation given its effect on attitude and behavioural intention (Davis, 1989). It is used to understand users' intention towards acceptance of an innovation (Oloveze et al., 2021; Liébana-Cabanillas et al., 2019). PU implies that the new system must offer better utility compared to the previous system (Oloveze et al.,2022). In online settings, it is very helpful to consumers in obtaining tangible results (Liébana-Cabanillas & Alonso-Dos-Santos, 2017). It is one of the important factors that influence most adoption of information technology and services (Kim et al., 2019). In continuance intention, it relates to post-adoption expectation and experience. Bhattacherjee (2001) consider it to have positive influence on user satisfaction.

When consumer's perceived usefulness is high, it significantly impacts satisfaction (Gu & Lee, 2017). In essence, as users recognise the useful role of technology in their lives, their level of satisfaction and the desire to use the technology increase (Gu et al., 2019). This is important because individuals' perception of m-payment benefits reinforces their long term usage relationship (Franque et al., 2021). As users perceive the benefits more, the chances of continuance intention increase. Essentially, PU highlights the attribute of utility and value. In several online innovations, it directly influences satisfaction (Tsai et al. 2020) and continuance

intention (Franque et al., 2021). In some continuance intention studies, it is not a significant predictor (Zhang et al., 2012). This makes it important in adopting it to study m-payment continuity intention. Thus, it is hypothesized that:

H3: Perceived usefulness of m-payment positively influences satisfaction

H4: Perceived usefulness positively influences continuance intention towards m-payment

Subjective Norm

Subjective norm is the extent of belief that individuals have about adopting behaviour because of the expectation of other people in their life (Fishbein & Ajzen, 1975). It comprises the individual's belief about referents in his/her life and the motivation to behave according to the referents' desire (Ramos-de-Luna et al., 2019). It underscores the impact of external influences on the individual in the form of social pressures (Azjen, 1991). The aspect of motivation highlights the essence of compatibility between group norm and innovation characteristics (Graham, 1956). In m-payment, subjective norm emphasises the perceptions of desirability of the innovation by a social environment (Ramos-de-Luna et al., 2019). It is extensively used in acceptance studies. It has been used to understand users' continuous usage of innovations (Tam, et al., 2020).

Its integration in the study is significant because according to Oloveze et al., (2022) the influence of referents is useful where there are levels of uncertainties and feelings of consequences associated with the innovation. It is important in cases of poor knowledge and experience on the use of the m-payment (Schierz et al., 2010). Essentially, the significance of its relevance is that a favourable result from the referents will increase the chance of usage (Webster & Trevino, 2017). This has been validated in extant studies (Ramos-de-Luna et al., 2019). From this perspective, m-payment intention studies have shown direct impact with usefulness (Liébana-Cabanillas et al., 2017) but not significant in others (Ramos-de-Luna et al., 2017).

With continuance intention studies, authors found a direct relationship with satisfaction (Nguyen & Ha, 2022) and continuance intention (Fu & Juan, 2017). Thus it is hypothesized that:

H5: Subjective norm positively influences perceived usefulness of m-payment

H6: Subjective norm positively influences user satisfaction of m-payment

H7: Subjective norm positively influences continuance intention

Satisfaction

Satisfaction is a person's feeling of comfort because of positive experiences and outcomes from using m-payment (Franque et al., 2021). It is a post-adoption outcome that increases in intensity after usage (Bhattacherjee & Lin, 2014). As a key driver in continuance intention studies (Bhattacherjee, 2001), it reinforces continuous usage of innovation (Nascimento & Oliveira, 2016) and long term relationship (Yu et al., 2018). Repeat usage is fostered when users experience higher satisfaction (Aries et al., 2016). It is important in m-payment studies because it can help drive user expression of experience with others (Gelb & Sundaram, 2002) and help determine post adoption expectation and confirmation. It directly predicts continuance intention in smartphone banking services (Aries et al., 2016), NFC payment systems in public transportation (Liébana-Cabanillas et al., 2019), and digital platform (Nguyen & Ha, 2022). Thus, it is hypothesized that:

H8: Satisfaction of M-payment user positively influences continuance intention

Figure1. Proposed structural model
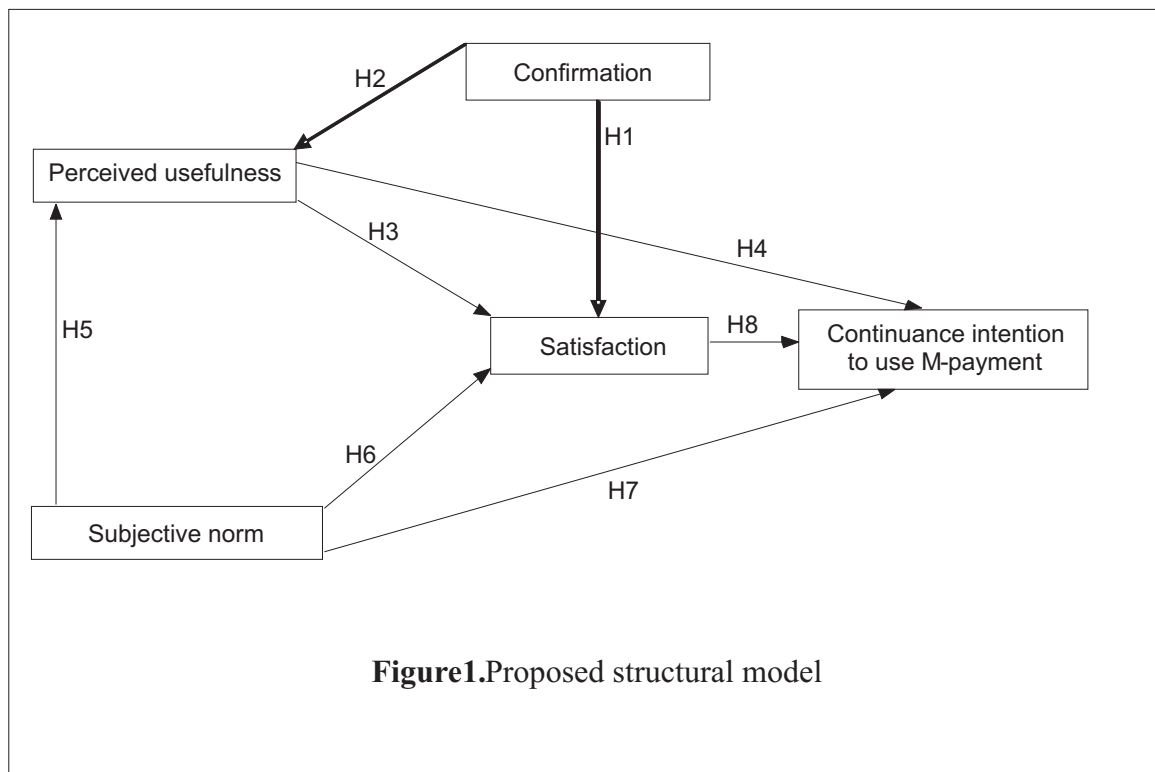
Research Methodology
Online survey was conducted using Google forms that was structured and distributed among respondents in Southern Nigeria (Rivers, Delta and Edo) where, according to StearsBusiness (2020), mobile internet subscription exceeds 50%. Snowball sampling email lists and social network were used to share the form's link to colleagues in these states. Filter questions that include "current residence/location by state" and "I use m-payment for payment of transactions" were used to enable screening out of individuals who do not have any previous experience of m-payment; and are not members of the target group.

The measurement scales were adapted from related studies as illustrated in table 1. To measure the adapted constructs, 7-point Likert scale was used where 1 is strongly disagree and 7 strongly agree. Preliminary tests were conducted using experts. This was done to control acquiescence, ensure correct wording of items, and limit the impact of common method bias on the data. A total of 271 copies of questionnaire were collected. 208 copies of the questionnaire were usable after screening out 63 copies using the filter questions. Specifically, 47% (98) copies of questionnaire were from Rivers state, 35%(73) from Delta, and 18%(37) from Edo. 63%(131) were male. 37%(77) were females. 69%(144) were below 35 years. 31%(64) were above 35 years.

Confirmatory Factor Analysis
Principal component extraction with Promax and Kaiser normalisation rotation method are used in factor analysis. With the Kaiser-Meyer-Olkinvalue of 0.894, it satisfied the threshold for sampling adequacy. Bartlett's test of Sphericity is significant at .000 thereby showing significant difference between the correlation matrix and identity matrix. This confirms correctness of the sample adaptation for factor analysis. More than half of the variance is accounted by the extracted factors at 62.116%. It satisfies the 50% threshold for retention of factors (Streiner, 1994). All the communalities are more than the recommended value of 0.30 (Field, 2009). Common method bias (CMB) was conducted using Herman's single factor technique by adjusting all items to single

factor. At 40.585CMB, there is no significant influence on the data because the threshold is 50% (Saheb et al., 2020). Cronbach's alpha, composite reliability and convergent validity were conducted to test the reliability and validity of the instrument. As illustrated on table 1, the values for Cronbach's alpha and composite reliability for each of the constructs exceeded the recommended threshold which is 0.70 for each of Cronbach alpha and composite reliability (Hair et.al., 2010). This confirms the instrument's reliability.

Table 1: Confirmatory Factor Analysis and Inter -Item Correlation Matrix

Construct and questionnaire item	FL	CA	CR
Confirmation (Adapted from Bhattacherjee, 2001)		0.754	0.819
(CON1) The level of service it provided was better than expected	0.828		
(CON2) It meets my demand more than I required from it	0.744		
(CON3) Overall most of my expectations were confirmed	0.752		
Satisfaction (Adapted from Bhattacherjee, 2001)		0.806	0.747
(SAT1) I feel satisfied with m-payment performance	0.742		
(SAT2) I feel contented using m-payment	0.740		
(SAT3) I am delighted using m-payment	0.626		
Perceived usefulness (Adapted from Davis, 1989)		0.825	0.815
(PU1) M-payment permits me to fulfill my payment tasks quickly	0.785		
(PU2) It helps me to be more efficient with financial transactions	0.708		
(PU3) It enables me to be effective in executing financial payments	0.819		
Subjective norm (Adapted from Ramos-de-Luna et al., 2017)		0.730	0.750
(SN1) People that are important to me support my use of m-payment	0.818		
(SN2) The ones I value their opinions prefer me to use m-payment	0.634		
(SN3) The people that influence me think I should use m-payment	0.662		
Continuance Intention to use M-payment (Adapted from Bhattacherjee, 2001)		0.837	0.859
(CI1) I intend to continue using m-payment	0.810		
(CI2) I intend to continue using it frequently	0.735		
(CI3) I intend to continue using it on regular basis	0.761		
(CI4) I intend to recommend it to others	0.798		

Note: FL (Factor loadings); CR (Composite reliability); AVE (Average variance ex tracted); CA (Cronbach's alpha)

Validity was conducted with convergent validity through average variance extracted (AVE), and discriminant validity. The threshold for AVE is 0.50 (Fornell & Larcker, 1981). The values of each of the constructs on table 2 show that convergent validity is confirmed. The discriminant validity was achieved through three approaches. First, the latent variables should share correlations that must be less than 0.9 (Hair et al., 2010). Second, AVE must be greater than MSV or ASV (Almén et al., 2018). Third, the root of AVE of each construct must be higher than its correlation with another construct (Fornell & Larcker, 1981). As illustrated in table 2, these conditions were satisfied. Thus, the discriminant validity is achieved.

Table 2. Correlation Matrix, MSV, ASV and AVE

	Confirmation	Perceived usefulness	Subjective norm	Satisfaction	Continuance intention	MSV	ASV	AVE
Confirmation	**.775**					0.420	0.178	0.601
Perceived usefulness	.193	**.772**				0.349	0.183	0.596
Subjective norm	.648	.250	**.709**			0.420	0.196	0.503
Satisfaction	.386	.533	.434	**.705**		0.284	0.223	0.497
Continuity intention	.323	.591	.339	.522	**0.776**	0.349	0.210	0.603

Note: Correlation is si gnificant at the 0.01 level (2 -tailed); Root of AVE **(in bold on main diagonal)**; MSV =Maximum shared variance; ASV =Average shared variance

Test of Fit of Model
The fit of the model was assessed through the parsimonious and incremental goodness -of-fit indices. When compared with the recommended values in literature as illustrated in table 3, the values of the model satisfied the thresholds. This includes : $\chi^{2/df}$ =2.238, RMSEA =0.077, CFI =0.994, TLI =0.949, SRMR =0.013 and Pclose =0.223 (Hair et al., 2010).

Table 3 : Structural Model Fit Indices

Coefficients	$\chi^{2/df}$	RMSEA	CFI	TLI	SRMR	PClose
Model value	2.238	0.077	0.994	0.949	0.013	0.223
Recommended value	<3	<0.08	>0.90	>0.90	<0.08	>0.05

Notes: $\chi^{2/df}$ = chi-square; RMSEA = Root mean squared error of appr oximation; CFI = Comparative-fit-index; TLI = Tucker -Lewis index; SRMR = Standardized root mean squared residual

Test of Hypotheses
SEM through STATA v13 and SPSS v25 was used to evaluate the model while the paths in the model were assessed through the estimates of standardised coefficients and p-value. As illustrated in table 4 and figure 2, all hypotheses were supported except H2. Specifically, the results show that perceived usefulness, subjective norm, and satisfaction directly influence users' continuance intention toward m-payment. In essence, H4(β=0.4388,p=0.000), H7(β=0.1243,p=0.035) and H8(β=0.2149,p=0.001) are supported respectively. Also, confirmation, perceived usefulness, and satisfaction positively influence satisfaction. These are validated by H1(β=0.1576,p=0.025), H3(β=0.4472,p=0.000) and H6(β=0.2200,p=0.002) respectively. Subjective norm is positively related to perceived usefulness of m-payment (H5:

β=0.2149,p=0.013). Lastly, the analysis of direct, indirect and total effects show that perceived usefulness has the strongest total effect on users' continuity intention to use m-payment while subjective norm has the most indirect effect on continuity intention of users to m-payment.

Table 4: Hypotheses Tests

Proposed hypotheses	Relationships	Standard coefficient	T-value	SE	*p*-value	Relationship support
H1	Confirmation→Satisfaction	.1576	2.24	0.070	0.025	Accept
H2	Confirmation→Perceived usefulness	.0539	0.61	0.088	0.540	Reject
H3	Perceived usefulness→Satisfaction	.4472	8.73	0.051	0.000	Accept
H4	Perceived usefulness→Continuity intention	.4388	7.36	0.060	0.000	Accept
H5	Subjective norm→Perceived usefulness	.2149	2.49	0.086	0.013	Accept
H6	Subjective norm→Satisfaction	.2200	3.11	0.071	0.002	Accept
H7	Subjective norm→Continuity intention	.1243	2.11	0.059	0.035	Accept
H8	Satisfaction→Continuity Intention	.2149	3.20	0.067	0.001	Accept
R^2	Perceived usefulness	.064				
R^2	Satisfaction	.394				
R^2	Continuance intention	.623				

Estimates of Direct, Indirect and Total Effects

Predictors	Criterion variable							
	Satisfaction				Continuance intention			
	Direct effects	Indirect effects	Total effects	*P*-value	Direct effects	Indirect effects	Total effect	*P*-value
Confirmation	.0993	.0152 (n.s)	.1146	0.541	-	.0428	.0428	0.216 (n.s)
Perceived usefulness	.4660	-	.4660	-	.4946	.1083***	.6029	0.000
Subjective norm	.1574	.0688**	.2262	0.020	.0962	.1256***	.2218	0.000
Satisfaction	-	-		-	.2324	-	.2324	0.002

Note: SE = Standard error, ***p value <0.000; **p value < 0.05; *p value <0.10, n.s = not significant

Figure 2. Result of the structural model
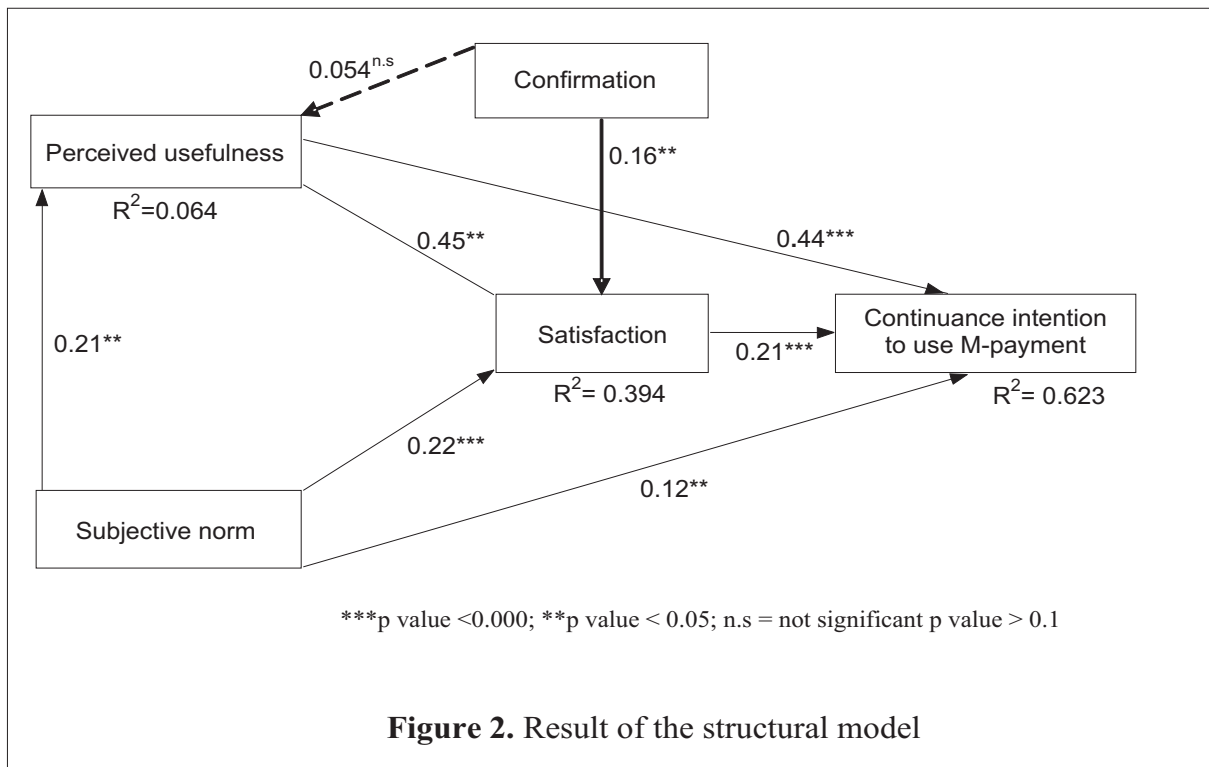
Discussion, Conclusion and Implications

The study sought to evaluate the factors that motivate m-payment users' continuance intention. A structural model was used to assess the hypothesised relationships. The results support all the proposed relationships except the relationship between confirmation and perceived usefulness. From the perspective of academic contribution, it is a pioneer study in the study area given the uniqueness of applied methodology and assessed constructs that help to understand users' continuance intention to use m-payment. Second, the results contribute to online payment studies as m-payment is an aspect of the broad spectrum. This imply that results from the user perception and m-payment characteristics provide a direction and information on users' continuance motivation to m-payment. Unlike extant studies that posit satisfaction as the strongest determinant of continuance intention (Hossain et al., 2018), the study fills the gap of financial inclusion and causes of fluctuation in online marketplace from the significance of users' perceived usefulness. Thus it provides specificity by indicating perceived usefulness as the major predictor of satisfaction while noting the vital role of referents in deepening cashless market by influencing users' continuous adoption of m-payment.

In considering the theoretical contribution, first, the inclusion of the adapted variables from TRA (subjective norm), ECM (satisfaction and confirmation), and TAM (perceived usefulness) were validated with the fit of the model. Also the value of R^2(0.623) shows a better predictive result compared with similar studies (Nguyen & Ha, 2022) and others on m-payment in Africa (Franque et al., 2021).

Second, users' continuance intention to use m-payment is directly determined by perceived usefulness, subjective norm and satisfaction while confirmation, perceived usefulness and subjective norm indirectly influence m-payment' continuous usage. Perceived usefulness directly influence continuance intention to use m-payment and indirectly influence it through satisfaction. The direct influence is validated in behavioural intention studies related to m-

payment (Liébana-Cabanillas et al., 2020) but not confirmed on continuance use of m-payment (Franque et al., 2021). In this result, it is the strongest direct and indirect predictor thereby buttressing the importance of m-payment characteristics meeting the user post-adoption expectations. The significance of the result indicates that users are finding it useful, beneficial and reliable in enhancing performance after adopting m-payment. It highlights the importance of value and utility being able to meet the expectations of adopters to motivate continuous usage. This is vital where the m-payment users consider it useful against their values matching m-payment's characteristics (Kalinic & Marinkovic, 2016).

With the nations' drive towards financial inclusion, the result shows that m-payment can contribute to cashless drive and help explain individuals' motivation to continue its usage particularly when users are able to associate its usefulness to post-adoption expectation. With the indirect result as confirmed in (Tam et al., 2020), the importance of user satisfaction with usefulness of m-payment is explained. As the post-adoption experience increases, it reinforces satisfaction with continuous use of m-payment (Gu & Lee, 2017).

The study also shows that satisfaction determines continuance intention to use m-payment as confirmed in related studies (Nguyen & Ha, 2022). The implication is that users must feel satisfied with the m-payment adoption before considering long term usage. This is significant because satisfaction drives reuse when it is high (Aries et al., 2016) and can determine users' motivation to keep using it for a long time. The satisfaction comes from feelings of contentment and delightfulness in using it. In some continuance intention studies, it is the strongest predictor (Hossain et al., 2018). However, the significance of the result in this study implies that users consider it essential. This calls for further studies in analysing the dimension of satisfaction that users consider essential in continuing usage of m-payment.

Also, the result shows that subjective norm has direct effect, and indirect effect on continuance intention to use m-payment through satisfaction. The results of the direct influence (Odoom & Kosiba, 2019) and indirect effect (Nguyen & Ha, 2022) are validated in extant literature; but not in other m-payment systems (Suyunchaliyeva et al., 2021). In studies on intention to use, it is a key direct and indirect predictor (Liebana-Cabanillas et al., 2018). The direct effect and indirect effects through satisfaction and perceived usefulness highlight the importance of encouraging users to continue using m-payment. This implies that users' beliefs and motivations can be impacted through referents. Such influences can be positive or negative depending on cultural factors and cultural collectivism that either increases or reduces users' continuance intention (Al-Maghrabi & Dennis, 2011). With increase in social pressure and conformance to opinions of others, chance of financial inclusion is enhanced while deepening the tendency to continue usage.

The study also shows that the path of confirmation and perceived usefulness is significant as validated in other studies (Franque et al., 2021) and consistent with ECM proposition (Bhattacherjee, 2001). It highlights the importance of pre-adoption expectation matching performance in post-adoption. With m-payment systems, the expectations of users are confirmed when users continue usage of the innovation (Singh, 2020).

Generally, technologies have their unique characteristics. M-payment is one of several online payment innovations. The drive for financial inclusion and fluctuations in online marketplace in Nigeria indicates that it can be addressed from fostering m-payment continuous usage. User satisfaction and influence of referents are significant drivers to achieve the aim while perceived usefulness is the key driver. This is important in the area given their cultural collectivism that indicates usefulness as the key driver and the perception of opinion of others encouraging them to continue its usage.

Managerial Implications

The key implications border on banks, manufacturers of mobile devices, and merchants. The implication of direct effect of perceived usefulness and subjective norm on continuance intention, and the significant influence of confirmation call for meaningful considerations of these effects. The need to utilize communication avenues and promotional campaigns to buttress the usefulness of m-payment is clearly indicated. Taking into account the places that have thin spread of m-payment adoption, the results of the continuance study can be beneficial to banks in devising strategies to enhance and deepen knowledge of usefulness of m-payment from post-adoption behaviour of m-payment users.

The campaigns should draw from the experiences of users who have intention to continue using m-payment. Consumers are rapidly getting sophisticated, complex and demanding, therefore, strategies that are associated with lifestyle of users and connectivity experience of users can be tapped into, to drive more people into continuing usage of m-payment. In this respect, banks and manufacturers of smartphones and other mobile devices that are internet enabled can utilize the gains of influencer marketing and celebrity endorsement to showcase the advantages of continuous usage of m-payment. The effect of subjective norm on continuance intention calls for deepening of positive environment in ways that will stimulate continuity in usage of m-payment. Specifically, opinion leaders and referents in the society can offer huge assistance in ensuring that more users continue the usage of m-payment.

Limitation and Suggestion for Further Studies

The limited number of variables used in the study implies that there are other variables excluded from the study. Addition of more variables could provide comprehensive knowledge on m-payment continuance intention. Given that this is a pioneer study in the location arising from the high level of mobile internet penetration, inclusion of other places at the northern Nigeria with similar evidences will help provide more knowledge about continuance intention of m-payment. M-payment is generic. Therefore, conducting a case study on ones such as USSD, Mobile App, Remita, Interswitch, e-Tranzact, VoguePay will provide better knowledge and specific contributions to continuance intention to m-payment in Nigeria. In addition, subjective norm proves on the short run to be a predictor of continuance intention, thus a longitudinal study is appreciated to really ascertain this effect on the long run and ascertain the dimensions of the social influence (subjective norm) that contribute to the continuance intention of m-payment.

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