Determinants of M-Commerce Platform Adoption Among Individuals in South African Township Communities

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Abstract

Since the COVID-19 pandemic outbreak in 2020, there has been an increase in the adoption of e-commerce (electronic commerce) from which m-commerce (mobile commerce) was born. M-commerce is the use of a mobile phone to purchase goods and services. Most of the South African population resides in townships and rural areas and contributes significantly to the economy. The study researched m-commerce adoption in South African townships by determining the factors that affect m-commerce adoption in South African townships. The study only focused on two townships in Johannesburg: Soweto and Tembisa. A conceptual research model based on the following factors from the UTAUT2 technology model: performance expectancy, hedonic motivation, and facilitating conditions, with social media and trust as two additional constructs. A digital online survey was used to collect respondents' data, and it was analysed quantitatively using SPSS. The findings of the study are discussed in detail, including testing the hypotheses formulated. Social media and perceived security have a significant, positive effect on the trust of South African township residents to adopt m-commerce platforms. Performance expectancy, hedonic motivation, trust, and facilitating conditions positively affect the intention of South African township residents to adopt m-commerce; however, trust and facilitating conditions were insignificant.

Introduction

South African townships have revolutionised and have, over the years, become economic hubs with infrastructure improvements, shopping centres, and malls (McGaffin et al. 2015). A township is "a residential area outside towns and cities with predominantly black, coloured, or Indian people and associated with low-cost housing and a lack of infrastructure" (Mahajan 2014). South African townships and informal settlements account

for 60% of unemployment in the country (Urban & Ndou 2019.). The rise in economic activity and improvement in many individuals' lifestyles has sparked a desire to obtain a better understanding of the economic landscape of South African townships and how it contributes to the economy of the country with digital transformation at the forefront of everything and with recent growth in electronic commerce (e-commerce) and mobile commerce (m-commerce).

Mobile commerce (m-commerce) comprises various aspects, which include online retail shopping, mobile banking, and mobile payments (Tiwari & Buse 2007). Due to technological advancements, South African townships and rural communities have been encouraged to embrace digital transformation. As a result, mobile devices have become convenient tools for people because they can use them to perform multiple transactions in their hands, leading to m-commerce becoming more favoured over e-commerce. After all, transactions can be conveniently done on the go (Abdelkarim & Nasereddin 2010).

Over the years, as more research has become available, m-commerce adoption has been studied using different technology adoption frameworks. The most well-known used theories are: The Theory of Reasoned Action (TRA) (Ajzen & Fishbein 1980), the Theory of Planned Behaviour (TPB) (Ajzen, 1985), the Technology Acceptance Model (TAM) (Davis 1986), the Diffusion of Innovation Theory (Rogers 1962/2003), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003) and the Unified Theory of Acceptance and Use of Technology2 (UTAUT2) being the latest developed model (Venkatesh et al. 2012).

As South Africa undergoes significant economic and digital transformation, understanding the adoption of mobile commerce (m-commerce) within these townships is essential. M-commerce holds the potential to empower residents by providing greater access to markets, financial services, and valuable information (Mhlongo et al. 2017). However, factors such as limited internet connectivity, low disposable income, and varying levels of digital literacy create a complex landscape that influences engagement with mobile commerce platforms Mitchel & Odendaal 2015). Examining m-commerce adoption in townships

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offers insights into how communities navigate digital changes amidst their historical and socio-economic challenges, underscoring the need for targeted interventions that consider local contexts to foster inclusivity in the digital economy.

Although research has been conducted in the past regarding m-commerce adoption in townships, using technology acceptance models to investigate the acceptance of m-commerce, there has yet to be known literature regarding how social media platforms and other factors affect m-commerce adoption in South African townships from the consumers' perspective. Dakduk et al. (2020) studied m-commerce adoption by low-income consumers and Dzimati (2017) researched online shopping in South African townships using the Unified Technology Acceptance and Use of Technology model (UTAUT). The purpose of this study is to take it a step further by focusing specifically on m-commerce adoption in South African townships using a conceptual model based on the Unified Technology2 (UTAUT2).

The research objectives of the study are to:
1. Determine whether perceived security and social media affect trust to adopt m-commerce by individuals in South African townships.
2. Determine whether individuals in South African townships trust m-commerce platforms.

3. Determine whether individuals in South African townships are motivated to use m-commerce platforms.
4. Determine whether technological constraints and conditions affect m-commerce adoption by individuals in South African townships.

This study can contribute to the government's plan by understanding the factors influencing mobile commerce adoption in South African townships from both a consumer and a business perspective and what initiatives government can create to assist in the economic growth of townships. M-commerce retailers can also use this study to understand the challenges faced by customers in the townships and how they can assist customers to overcome those challenges. According to the researcher's knowledge, literature has yet to be discovered regarding m-commerce adoption in South African townships from the consumers' perspective. This study can also contribute academically to further research regarding m-commerce adoption in South African townships.

M-commerce Adoption and Acceptance

Chonker et al. (2017) performed a study to investigate mobile commerce adoption based on all the above technology adoption frameworks and found that the Technology Acceptance Model (TAM) was the most popular framework, and the Unified Technology Acceptance and Use of Technology model (UTAUT) was gaining traction. Asastani et al. (2018) used both the UTAUT model (Unified Theory of Acceptance and Use of Technology) and TAM (Technology Acceptance Model). They concluded that performance expectancy, effort expectancy, social influence, and perceived trust influence of the use of m-commerce while facilitating condition and perceived cost have no significant effect on the use of m-commerce.

Using Chong's research model, Cullen & Kabanda (2018) only focused on two factors affecting m-commerce adoption in South Africa: demographic and motivational factors (Chong 2013). Demographic factors are the characteristics of the individual and include, amongst others, age, gender, and educational level (Cullen & Kabanda 2018). Both studies performed by Chong (2013) and Cullen & Kabanda (2018) concluded that mobile commerce adoption is negatively affected by the age, educational levels, and gender of an individual.

The following researchers moved away from the technology acceptance model (TAM). Instead, they focused on the Unified Theory of Acceptance and use of technology (UTAUT) to explore m-commerce adoption amongst low-income consumers (Dakduk et al. 2020) and South African townships (Dzimati 2017), similar to the study. Dakduk et al. (2020) included the trust and perceived security elements in the UTAUT. They concluded that perceived trust, habit, positive motivation, and facilitating conditions affected the of individuals to use m-commerce. Dzimati (2017) also added perceived security and trust as additional constructs to the UTAUT model for the study of online shopping acceptance in South African townships and concluded that effort expectancy, performance expectancy, social influence, perceived security, and trust are significant factors to adopting online shopping.

As with Dzimati (2017), our study focused on South African townships. However, it narrows the study to mobile online shopping and the use of social media to accelerate it. Lian and Yen (2014) also used the UTAUT together with innovation resistance theory to study factors affecting the acceptance of online shopping by older customers and revealed that Performance expectancy and social influence constructs have a significant effect on the acceptance of online shopping by older adults and younger consumers had higher drives and lower barriers towards acceptance as compared to older consumers. However, unlike Lian and Yen (2014), this study focused on all age groups above the age of 18 and not only on older adults.

Gharaibeh et al. (2020) used the UTAUT2 model as a base for their study on m-commerce adoption; however, they extended the model by adding social media as an additional construct. Although the study by Gharaibeh et al. (2020) was done in Jordan, situated in Western Asia, it is similar to this study because it also focuses on the impact of social media on the intention to adopt m-commerce. The conclusion was made that the six constructs of the UTAUT2 model and social media immensely affect the intention of consumers in Jordan to adopt m-commerce. Unfortunately, no available literature has shown evidence of a similar study performed in South Africa, specifically in townships.

> **The growth of social media platforms has allowed businesses to have direct and quick access to their consumers.**

Lin and Theingi (2019) extended the UTAUT2 model by adding disturbance concerns and perceived trust. They concluded that social influence, facilitating conditions, price value and habit, and trust, positively influence the behavioural intention of m-commerce adoption. Lastly, Bendary and Al-Sahouly (2018) focused on Egypt, exploring the UTAUT2 factors' effect on perceived usefulness and ease of use on mobile commerce. They concluded that social influence and hedonic motivation were the most predominant factors.

Security and Trust in the Adoption of M-Commerce

In the absence of brick-and-mortar shopping experience, trust becomes a significant factor between the vendor and the customer, especially with the perceived risks encompassing technological advances such as m-commerce (Corbitt et al. 2003). Trust is "a subjective belief that a party will fulfil their obligations," and in the context of m-commerce, the following factors: privacy of customer information, quality of information, m-commerce usability, vendor's trustworthiness and reputation, influence trust (Siau et al. 2003). According to Cho et al. (2007), situational normality, calculative trust, and familiarity with a trustworthy online vendor are the factors a customer considers concerning trusting m-commerce. Trusting beliefs in the online environment can be classified into either external or internal factors (Salo and Karjaluoto, 2007). External factors include consumer characteristics, products and services, past experiences of the consumer, and risk perception (Salo and Karjaluoto 2007). Internal factors include the information system and privacy protection (Salo and Karjaluoto 2007).

Vasileiadis (2014) concluded that both security and trust are critical factors in the adoption of m-commerce by using the Technology Acceptance Model (TAM) and extended it by adding perceived trust and perceived risks (security and privacy concerns) as additional factors. Likewise, Armesh et al. (2010) stated that the security and privacy of information affect trust & trustworthiness, and loyalty in online marketing in Malaysia.

The growth of social media platforms has allowed businesses to have direct and quick access to their consumers. With social media proliferating, individuals are using social media to share and access information quickly. According to Bekmagambetov et al. (2018), social media assesses m-commerce websites and allows customers to quickly manoeuvre to the desired m-commerce page, also serving as a direct mode of communication between business and the customer (Pelet and Papadopoulou 2015). Hajli (2014) adopted the Technology and Acceptance Model (TAM) to determine how social media has allowed consumers to interact with other consumers and found that when consumers interact on social media, it increases trust and their intention to purchase products. According to Pelet and Papadopoulou (2015), social media use on mobile devices is growing, and there is a positive attitude towards m-commerce. The factors affecting m-commerce and social media adoption are trust, reputation, speed, ease of use, and security.

Mani and Gunasekaran (2018) discovered that social media and m-commerce adoption are affected by factors such as trust, product reputation, ease of use, and security, and the gap filled by this research study was to take it a step further by focusing on South African townships. Hossain et al. (2020) investigated the role of social networking in driving m-commerce from a different perspective, using the Uses and Gratifications (U&G) Theory (Gan 2017). This is a theoretical framework that is used to explain the different reasons why an individual uses a specific media platform focusing on both mobile online shopping and the mode of payment, and found that from the customer's perspective using m-commerce through social networking sites (SNSs)

is easy, saves time and secure if the following factors, namely trust, mobile application compatibility, the perceived value of online shopping mobile apps and online payment are met. Our study extended the demographics of Hossain et al. (2020) to South African townships to determine whether different results may be yielded.

Conceptual Framework and Model

A conceptual research framework was used to develop the research model for hypotheses development based on constructs of the Unified Theory of User Acceptance and Use of Technology2 (UTAUT2) acceptance model that was developed by Venkatesh et al. (2012), together with social media, perceived security, and trust as additional constructs.

The Unified Theory of User Acceptance and Use of Technology2 (UTAUT2) model was used to develop a conceptual research model for this study because it is the latest technology acceptance model. The UTAUT2 model has seven constructs: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. It also consists of three moderators: age, gender, and experience.

However, only the hedonic motivation, facilitating conditions, and performance expectancy constructs were considered for this study. Due to resources and time constraints, the price value and habit constructs were not considered. The effort expectancy construct was also not considered in the study because it conflicts with facilitating conditions constructed in mobile shopping adoption, according to Yang and Forney (2013). According to Venkatesh et al. (2003), the facilitating conditions construct becomes a predictor of intention when the effort expectancy construct is not included in the model. Wu et al. (2007) states that effort expectancy is not critical for consumer technology adoption. Therefore, the compatibility of the mobile device, including features and functions, is more important than the ease of use of the services of the mobile devices (Yang and Forney 2013).

The social influence construct was not used directly in the conceptualised research model (Figure 1). It has been replaced with social media construct. Perceived security and trust are the two additional

constructs to the research model because, with online shopping and payments, security is vital in gaining customers' trust and loyalty (Özgüven 2011). Figure 1 below illustrates the conceptualised research model. The hypotheses are described in Table 1 below.
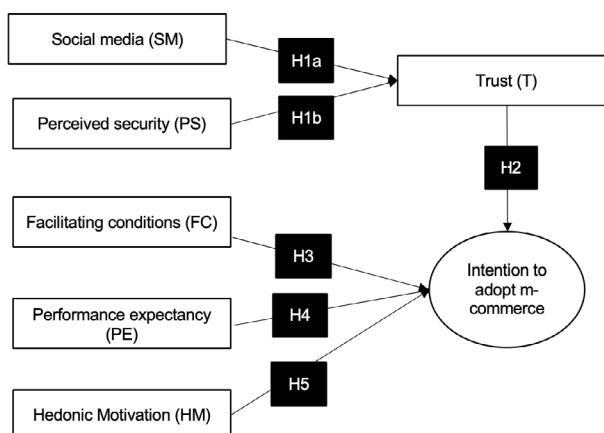

Figure 1: Conceptualized research model

Table 1: Hypotheses table

Hypothesis	Description
H1a	Social media (SM) positively affects users' trust in m-commerce (T) in South African townships.
H1b	Perceived security (PS) positively affects users' trust in m-commerce in South African townships.
H2	Trust (T) positively affects a user's intention to adopt m-commerce in South African townships.
H3	Facilitating conditions (FC) positively affect users' intention to adopt m-commerce in South African townships.
H4	Performance expectancy (PE) positively affects users' intention to adopt m-commerce in South African townships.
H5	Hedonic motivation (HM) positively affects a user's intention to adopt m-commerce in South African townships.

Trends in South African Townships

In 2022, the Township CX Report conducted a survey and noted that 70% of the respondents were making purchases online compared to 29% in 2021, and 48% of respondents have Wi-Fi in their residential homes (Rogerwilco et al. 2022); this is evidence that online shopping is rapidly growing; thus, providing a basis for understanding the factors affecting m-commerce usage is amongst residents. Therefore, this study focuses solely on townships because the economy of the South African township and online shopping has gained traction (Rogerwilco et al. 2022).

Despite a growing body of literature on mobile commerce (m-commerce) in South Africa, significant gaps remain, particularly concerning the role of social media in shaping consumer trust within township contexts. While studies by Dakduk (2017) and Dzimati (2020) have explored various dimensions of m-commerce adoption, they often overlook the critical influence of social media as a trust-building mechanism among consumers in these unique socio-economic landscapes.

This study aims to fill this gap by examining how social media platforms facilitate trust among township residents when engaging with m-commerce. By focusing specifically on the interplay between social media usage and consumer trust, this research seeks to contribute to a more nuanced understanding of m-commerce adoption in South African townships. This approach not only highlights the distinct socio-economic dynamics of these communities but also underscores the importance of social media as a transformative tool in the digital economy.

Data Collection and Sampling

The deductive approach was followed for this research by testing the hypotheses developed from the conceptual research framework; hence the quantitative approach was followed. In our study, we used a cross-sectional survey to collect data using a digital survey. According to Statista (2022b), the estimated populations of Soweto and Tembisa are 1,695 000 and 512 000 respectively. The targeted population of this study was individuals residing in Soweto and Tembisa, who met the following criteria:

- Be 18 years or older,
- Have a compatible mobile phone,
- Residents of Soweto or Tembisa

For this study, non-probability convenience sampling was used. Convenience sampling is selecting readily available participants (Taherdoost 2016). The sample is selected on the basis of the convenience of the researcher (Acharya et al. 2013). The reason why convenience sampling was used for this research was because it was less time-consuming and convenient to select respondents in different public areas, e.g. shopping malls and workspaces. Convenience sampling also allowed the researcher the flexibility to reach participants on online social platforms. A sample size of 220 respondents was used across both townships.

The digital survey was sent to respondents via email, embedding a link to the survey, and the link was shared with them on social media platforms like WhatsApp, Facebook and LinkedIn. This distribution method was chosen because of its ease of accessibility, convenience, limited resources, and cost-saving benefit.

The hypotheses and constructs were derived from various literature sources. The questions to address each of the hypotheses and constructs were also adopted from literature sources that had used similar questions. Some of the questions were changed for the suitability of this research.

A Likert scale questionnaire was used because it allowed the researcher to gather data effectively from a large sample (Nemoto & Beglar 2014) and because participants could indicate their emotions and attitudes with the topic statements (Zikmund 2003).

Data processing

The data collected for this study was analysed using Statistical Package for Social Science (SPSS) version 28. Regression analysis was used to determine the cause-and-effect relationship between the variables (Sykes 1993).

Multiple linear regression analysis is applied to a dependent variable which has more than one independent variable, as is the case in this study. For this study, multiple linear regression was used in two instances. In the first instance, trust (T) is the dependent variable, with social media (SM) and perceived security (PS) as the independent variables. In the second instance, the independent variables are social media (SM), trust (T), facilitating conditions (FC) and performance expectancy (PE), with intention to adopt m-commerce (IA) as the dependent variable.

Two hundred and twenty (220) responses were received and recorded on Qualtrics XM. From the 220 responses received, it was noted that only a hundred and ninety-eight (198) responses were fully completed, with all the questions fully answered; this resulted in a 90% total response rate. Furthermore, a normality test was performed (see below) to determine whether the data was normally

distributed before analysing it. Table 2 provides the socio-demographic profile of the respondents.

Table 2: Socio-demographic profile of the respondents

Profiles	n	Percentage (%)
Gender		
Female	104	52.5
Male	94	47.5
Total	**198**	**100**
Age (Years)		
18 – 24	35	17.7
25 – 30	56	28.3
31 – 40	63	31.8
41 – 50	34	17.2
51 – 60	9	4.5
60+	1	0.5
Total	**198**	**100**
Qualifications		
Lower than matric	4	2,0
Matric	46	23,2
Higher certificate	32	16,2
Diploma	40	20,2
Degree	51	25,8
Postgraduate degree/diploma	25	12,6
Total	**198**	**100**
Monthly income range		
No income		19
R0 – R7 999	36	18.2
R 8 000 – R15 999	44	22.2
R16 000 – R24 999	38	19.2
R25 000 – R34 999	34	17.2
R35 000+	22	11.1
Total	**198**	**100**

Measurements

A Likert scale questionnaire was used because it allowed the researcher to gather data effectively from a large sample and because participants could indicate their emotions and attitudes with the topic. According to Zikmund (2003), a Likert scale usually has five options to agree with a statement: strongly agree, agree, uncertain, disagree or strongly disagree, the questionnaire used this five-point scale.

The data collected for this study was analysed using Statistical Package for Social Science (SPSS) version 28[1]. Regression analysis was used to determine the cause-and-effect relationship between the variables. Regression analysis is defined as "a statistical technique for estimating the relationship among variables which have reason and relation" (Uyanık and Güler 2013). Multiple linear regression was used for this study because there is more than one independent variable and only one dependent variable.

Descriptive and inferential statistics were used to analyse and interpret the data collected. According to Fisher & Marshall (2009), descriptive statistics are used to analyse the characteristics of a sample numerically and graphically. Descriptive statistics include determining the data's mean, mode, variance, and standard deviation (Louangrath & Sutanapong 2015). Inferential statistics is defined as estimating the population and forming a conclusion based on observations described by descriptive statistics (Louangrath & Sutanapong 2015).

Preliminary analysis

As part of the descriptive statistics, the following data was obtained from respondents using a Likert scale, as indicated in table 3.

Normality testing

As indicated in Table 4 below, as analysed in SPSS version 28, the skewness of -0.462 is greater than -1, indicating that the data is normally distributed. Furthermore, kurtosis is -0.601, which is greater than -1 and indicates normal distribution.

Skewness and Kurtosis testing

Do you intent to use mobile commerce (m-commerce) when given the chance to?	Statistic	Std. Error
Skewness	-0,462	0,173
Kurtosis	-0,601	0,344

Validity and reliability testing

Factor analysis testing in SPSS included Kaiser-Meyer-Olkin (KMO) and Barlett's test for Sphericity,

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1 The researcher used SPSS to perform calculations and present data graphically.

Table 3: Descriptive statistics

Profiles	n	Percentage (%)
Intention to adopt m-commerce platforms		
Definitely not	16	8.1
Probably not	28	14.1
Might or might not	49	24.7
Probably yes	69	34.8
Definitely yes	36	18.2
Total	**198**	**100**
Items purchased via m-commerce*		
Groceries and personal care	78	22
Clothing and fashionable items	88	25
Furniture and appliances	31	9
Electronics and media	75	21
Toys, Hobbies and DIY	48	13
Other	35	10
Total	**355**	**100**
Reasons to use your mobile device to do online shopping*		
Convenience	124	25.6
Security features of the m-commerce platform	97	20.0
Social media views about the product and services	97	20.0
Easy check-out and payment process	86	17.8
Brand reputation of vendor	80	16.5
Convenience	124	25.6
Total	**484**	**100**

* Respondents could select more than one answer

as illustrated below in Table 5. KMO is 0,943, which is greater than 0,6 (Pallant 2020). and Barlett's test is 0,000, less than 0,05 (Pallant 2020). Therefore, this research has achieved a good factor analysis and indicates that the variables have patterned relationships. As illustrated in Table 6 all constructs indicate a Cronbach Alpha of 0,914 and are therefore reliable.

Table 5: KMO and Barlett's test for Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,943
Bartlett's Test of Sphericity	Approx. Chi-Square	4650,52
	df	465
	Sig.	0,000

Table 6: Reliability statistics

Cronbach's Alpha	N of Items
0,914	7

Descriptive statistics of combined variables

The 30 related questions of the digital survey were combined in SPSS to obtain the six constructs below, as indicated in Table 7. The dependent variable, the intention to use, is also included in Table 12; there was only one question relating to intention to use in the survey. A Likert scale was used to measure the variances, with 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. Trust has the highest mean of 3,5949, rounded off to 4; performance expectancy has the second highest mean of 3,4263, rounded off to 3; intention to use is third with 3,4100; facilitating condition is fourth with 3,3889, rounded off to 3, which is neither agree nor disagree on the Likert scale. Perceived security followed with a mean of 3,2485, rounded off to 3, being neither agree nor disagree. Social media has a mean of 3,1182, and hedonic motivation has the least mean of 3,0818, which rounds off to 3, which is neither agree nor disagree on the Likert scale.

Multiple regression analysis to determine trust (T)

As per the research model indicated below, trust (T) is both a dependent variable and is integrated into the model as an independent variable. Furthermore, social media (SM) and Perceived security (PS) are the independent variables to determine trust (T); therefore, multiple regression was performed for trust (T).

Statistical acceptance of the model (Trust)

Table 8 illustrates the Analysis of Variance (ANOVA) results indicating that the regression model is acceptable (Aasland, 2008). The data is split into two components regression and residual. The regression row indicates information about the variation accounted for by the regression model, and the residual row indicates the variance not accounted for by the mode (Aasland 2008). The F-ratio measures whether the regression model is a good fit (Laerd statistics 2018). $F_{(2,195)} = 77,05$; $p < 0,05$ indicates that the multiple regression model to determine trust is statistically significant and a good fit.

Table 7: Descriptive statistics of combined variables

Constructs		N	Minimum	Maximum	Mean	Std. Deviation
Social media	SM	198	1	5	3,1182	1,10576
Perceived security	PS	198	1	5	3,2485	0,82626
Trust	T	198	1	5	3,5949	0,91761
Facilitating conditions	FC	198	1	5	3,3889	0,99424
Performance expectancy	PE	198	1	5	3,4263	1,00623
Hedonic motivation	HM	198	1	5	3,0818	0,96158
Intention to adopt m-commerce	IU	198	1	5	3,4100	1,17500

Table 8: ANOVA[a] (Trust)

Model		Sum of Squares	Df	Mean Square	F	Sig,
1	Regression	73,221	2	36,611	77,05	<0,001
	Residual	92,654	195	0,475		
	Total	165,875	197			

a, Dependent Variable: T (Trust)
b, Predictors: (Constant), PS (Perceived Security), SM (Social Media)

Multiple regression analysis to determine the intention to adopt m-commerce platforms

Intention to adopt m-commerce platforms (IU) is the dependent variable with the following independent variables, namely, trust (T), facilitating conditions (FC), performance expectancy (PE), and Hedonic motivation (HM). Multiple regression analysis was used to determine the intention to adopt m-commerce platforms.

Statistical acceptance of the model (Intention to adopt m-commerce platforms

Table 9 illustrates the Analysis of Variance (ANOVA) results, indicating that the regression model is acceptable (Aasland 2008). The data is split into two components regression and residual. The regression row indicates information about the variation accounted for by the regression model, and the residual row indicates the variance not accounted for by the mode (Aasland 2008). The F-ratio measures whether the regression model is a good fit (Laerd statistics 2018). $F_{(4,193)} = 49,385$; $p < 0,05$ indicates that the multiple regression model to determine trust is statistically significant and a good fit.

Table 9: ANOVA[a] (Intention to adopt m-commerce platforms)

Model		Sum of Squares	Df	Mean Square	F	Sig,
1	Regression	137,513	4	34,378	49,385	<0,001[b]
	Residual	134,351	193	0,696		
	Total	271,864	197			

a. Dependent Variable: Intent to adopt m-commerce platforms (IA)
b. Predictors: (Constant), HM (Hedonic motivation), T (Trust), FC (Facilitation conditions), PE (Performance expectancy)

Hypotheses results

Four hypotheses are supported by the research model as indicated in table 9. H2 and H3 are null hypotheses and accepted by the study. All the hypotheses have positive coefficients (beta's) which indicate that they are moving in the same direction as the dependent variables – Trust (T) and Intention to adopt m-commerce (IA). H2 and H3 are insignificant and null because p> 0.05, and H1a, H1b, H4 and H5 are significant hypotheses.

Table 10: Hypotheses results

Hypothesis number	Regression weights		Coefficients (beta)	Adjusted R²	P - value	t-value	Hypothesis supported	Hypothesis results
H1a	SM	T	0,245	0,436	<0,001	3,715	Accepted	The more a user in South African townships engages in social media, the higher the user's trust (T) of m-commerce in South African townships.
H1b	PS	T	0,490	0,436	<0,001	7,419	Accepted	The higher the perceived security (PS), the higher the user's trust (T) of m-commerce in South African townships.
H2	T	IA	0,013	0,496	p = 0,847	0,193	Accepted. Null hypothesis	Trust (T) does not affect a user's intention to adopt m-commerce in South African townships (IA).
H3	FC	IA	0,157	0,496	p = 0,061	1,887	Accepted. Null hypothesis	Facilitating conditions (FC) does not affect a user's intention to adopt m-commerce in South African townships (IA).
H4	PE	IA	0,257	0,496	p = 0,009	2,650	Accepted	The more a user in South African townships perceives the high performance of m-commerce platforms, the more likely they are to adopt and use m-commerce platforms.
H5	HM	IA	0,357	0,496	<0,001	4,382	Accepted	The more a user in South African townships is motivated to use m-commerce platforms, the more likely they are to adopt and use m-commerce platforms.

Findings of the study

Based on the analysis results, demographically, half of the research respondents (52%) were female. The younger generation was also the most respondents, with 78% younger than 40%. These results indicate that the younger generation in South African townships is embracing technology advancements, specifically m-commerce adoption.

As per the research model, perceived security and social media were indirect predictors of the intention of South African township residents to adopt m-commerce platforms. However, the research model determined whether they positively affected the trust of the individuals residing in South African townships to adopt m-commerce. Perceived security and social media were found to have a significant, positive effect on the trust of the individuals residing in South African townships to adopt m-commerce. Perceived security is the most significant predictor of trust compared to social media.

The intention of residents in South African townships to adopt m-commerce platforms was tested by determining which of the following factors, namely: trust, facilitating conditions, performance expectancy, and hedonic motivation, affect it. All four factors have a positive effect on the intention of residents in South African townships to adopt m-commerce platforms. Performance expectancy and hedonic motivation were significant predictors of the intention of residents

in South African townships to adopt m-commerce platforms; trust and facilitating conditions were insignificant predictors of the intention of residents in South African townships to adopt m-commerce platforms.

Limitations

This research had the following limitations:
- The digital survey is limited to participants from the two townships, and,
- only certain areas in Soweto and Tembisa were covered due to resource limitations.

Recommendations for future research

The research included only some of the constructs of the UTAUT2 model. Instead, a conceptual research model was developed based on the UTAUT2. The following constructs were excluded: effort expectancy, social influence, price value, and habit. The moderating factors, age, gender, and experience were also excluded due to limited time. The researcher recommends that the full UTAUT2 model be used in the future.

The data collected was quantitatively analysed, which limited the exploration of other factors that affect m-commerce platforms by South African township residents. However, the qualitative method can be used to understand the respondents' characteristics and attitudes. Therefore, the researcher recommends applying a mixed research method, including qualitative and quantitative methods.

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