

Factors Affecting Adoption of Cashless Transaction and Customer's Behavioural Intention in Bauchi Metropolis

Rabiata Ismail Burga, Muhammad Inuwa
Department of Business Administration
Saadu Zungur University Bauchi, Bauchi State

ABSTRACT

The introduction of cashless transactions has changed the process of receiving and making payments. Due to continuous changes in technologies and government policies, various types of modes of payment have developed. Therefore, the main objective of this study is to examine factors affecting the adoption of cashless transactions and consumers' intentions in Bauchi State. A total of 384 bank customers were involved in this study selected through purposive and convenience sampling. Self-administered questionnaires were distributed to the collected data. Partial Least Structural Equation Modelling was used to analyse the collected data using Advance Analysis for Composites (ADANCO). The study reveals that subjective norms and internet security significantly affect customer intention to use cashless transactions among bank customers in the Bauchi metropolis. The study recommended deposit money banks and other non-bank financial institutions should provide public enlightenment and awareness programs that will create awareness and entice the unbanked individuals into the banking system especially those in the informal sector in Nigeria.

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INTRODUCTION

Globally, the use of cash is finally slowing down due to rapid technological advancement in banking industry, the expansion of cashless transaction systems, and the rapid expansion of digital payment systems (Agrawal, 2021; Marria, 2018). The term "cashless transaction" refers to a situation where ownership of an asset is transferred without an initial cash payment (Fabris, 2019). In recent years, cashless practices have become increasingly integrated into the lives of people around the world, where financial transactions are completed through electronic systems without the use of physical notes or coins (David & Gantori, 2018). Additionally, while MasterCard, debit card and mobile banking applications are gaining popularity today and slowly taking cash out of payment systems, advances in contactless technology have transformed payment methods worldwide (Fabris, 2019). Leaders in cashless transactions

were Finland, China, Sweden, the United Kingdom, South Korea and Australia, and they continue to strive to become fully digital societies (Vlad Totia, 2020).

According to global transactions index, 85% of people still use cash for money transaction, because cashless transactions can be difficult to access (Xena & Rahadi, 2019). Perhaps, according to Statista website, the amount of internet usage behaviour and the number of digital payment consumers has increased dramatically every year since 2020, surpassing \$4.2 trillion in global electronic transactions (Asoni, 2021). In global recognition further, some developed countries such as the United States may not have implemented a cashless system due to regulatory concerns (Alam, Awawdeh & Muhamad, 2021). In Morocco 74% of payments are made with cash and in Kenya 40% of payments are made with cash,

Corresponding author: Rabiata Ismail Burga

✉ burganism0@gmail.com

Department of Business Administration, Saadu Zungur University Bauchi, Bauchi State.

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according to an IT reporter report on August 11, 2022.

In Nigeria, the problem is that 61% of population is unbanked. Only 36% internet users and 16 ATMs per 100,000 adults. This means Nigeria has a lot of problems to fix first before its people can be a non-cash society (Abdulazeez, Magaji & Musa, 2022). October 26, 2020 Business Day reports that the Nigerian Apex bank (CBN) announced that it will redefine the Naira note in line with the new cashless policy. Since the announcement Nigerians have been reacting to the policy, some believe it is good for the economy, while others claim it is not in the interest of the people (Abdulazeez, Magaji & Musa, 2022). Financial expert Kalu Aja feels that the CBN's move to redesign the Naira and withdraw limited cash is good as POS, mobile money and non-cash transactions are offered at low cost. However, it offers other options, such as writing tracked checks, wire transfers or mobile banking. Wole Oluyemi also said the move could be used to curb crime, corruption and promote e-commerce. Abiyos Roni, on the other hand, thinks that the policy will damage small and medium businesses, especially in rural areas, because many still lack access to bank accounts, education and internet.

Researchers around the world have extensively studied cashless transaction, especially in the developing countries where people still prefer to use cash for everyday transactions (Manrai, Goel & Yadav, 2021; Patile, Rana & Dwidevi, 2018; Qui, Shi, & Zheng, 2019). They often study Technology acceptance Models (TAM), Theory of Planned behaviour (TPB) and Unified Technology Acceptance and Use of theory (UTAUT) of Venkatesh (2003) or extension of both theories. This study attempts to integrate TAM (perceived ease of use and perceived usefulness) and TRA (subjective norm) and extend them with another variable: internet security. This is because cybercrime is one of the main factors preventing the acceptance of cashless transaction in Nigeria. In addition, there have been many studies on cashless transaction and behavioural intention in Nigeria (Ailemen, Enobong, Osuma, Evbuonwan & Ndigwe, 2018; Adeyemo, Isiavwe, Adetula, Olamide & Folashade, 2020; Oyelami, Adebisi &

Adekunle, 2020). Most of these studies mainly focused on south western cities such as Lagos and Ogun state. None of these studies use TAM and TPB variables to investigate the reasons for customer's reluctance to accept cashless transaction. To fill the gap, this study aims to evaluate the impact of subjective norms and internet security as reasons on customer behavioural intention to accept cashless transaction in Bauchi city located in the North Eastern Zone of Nigeria.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This study is underpinned by Decomposed of Theory of Planned Behaviour. Taylor and Todd (1995) indicated that a better understanding of the relationships between the belief structures and antecedents of intention requires the decomposition of attitudinal beliefs. Shimp and Kavas (1984) argued that the cognitive components of belief could not be organized into a single conceptual or cognitive unit. Taylor and Todd (1995) also specified that, based on the diffusion of innovation theory, the attitudinal belief has three salient characteristics of an innovation that influence adoption, are relative advantage, complexity and compatibility (Rogers, 1983). Taylor and Todd (1995) showed that the decomposed model of the TPB has better explanatory power than the pure TPB and TRA models. So, the argument of our empirical study is that cashless transaction is a technological innovation and thus the decomposed TPB model gives a more satisfactory explanation of adoption intention.

Related advantage refers to the degree to which an innovation provides benefits which supersede those of its precursor and may incorporate factors such as economic benefits, image, enhancement, convenience and satisfaction (Rogers, 1983). Relative advantages should be positively related to an innovation's rate of adoption (Rogers, 1983; Tan and Teo, 2000).

Subjective Norm

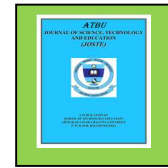
Chang, Enkhjargal, Huang, Lin, Ho, (2020) conducted research in commercial banks

Corresponding author: Rabiata Ismail Burga

✉ burganism0@gmail.com

Department of Business Administration, Saadu Zungur University Bauchi, Bauchi State.

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of Mongolia to examined factors affecting the Internet Banking Adoption. This study has integrated the E-service-quality model with the TAM and the Theory of Planned Behaviour (TPB) to investigate the factors affecting the use of internet banking services offered by the commercial banks in Mongolia. The data was collected through the survey method. SEM was used for the analysis. The results found that attitude; subjective norm, perceived behavioural control, perceived usefulness, and E-service quality were found to be the factors that affect customer's intentions to use internet banking in Mongolia.

Hiba and Faisal (2018) aim to examine the adoption decision of the internet banking in North Cyprus. A self-administered survey was conducted with 291 participants responded to it. PLS-SEM is employed for analysis. Results showed that even though the participants appreciated the benefits of the online banking as the perceived usefulness factor exerts the greatest direct effect, they would rather use clear and easy-to-use websites, adding to that their assessments of the usefulness of these services are significantly influenced by the surrounding people's views and prior experience. This is demonstrated by the total effects of the perceived ease of use and the subjective norm factors have significant direct and indirect effects mediated by the perceived usefulness factor. The negative impact of the perceived risk factor is weak compared to the previous factors.

H₀₁ = There is no significant relationship between subjective norm and customer's behavioural intention to adopt cashless transaction in Bauchi metropolis.

Internet Security

Olaolu (2022) conducted a study on digital banking adoption in Nigeria. The paper considered the adoption of digital banking in Nigeria focusing on mobile banking and internet banking with a conceptual framework that extends Technology Acceptance Model. The model of this study incorporated additional variables that would stimulate the usage of digital banking in Nigeria.

These conceptual framework variables include perceived usefulness, ease of use, security and banking regulations. Questionnaires were administered electronically and the set quota of 25 respondents per bank totaling 250 was met. Cronbach's alpha test showed that the instrument had a value greater than 0.70 which implied that the research instrument was reliable. Purposeful sampling technique was used for sampling size estimation of the descriptive and inferential statistics while the author utilized multiple regression method to analyze the data. The result of the research revealed that motivation for adoption of digital banking proxy by (perceived usage, ease of use, security and banking regulation) significantly affected mobile banking ($AdR^2 = 0.255$; $F = 8.357$; $p\text{-value} = 0.000$), as well as internet banking ($AdR^2 = 0.270$; $F = 8.960$; $p\text{-value} = 0.000$). The study therefore concluded that TAM variables in addition to security and banking regulations have statistically significant positive impact on the adoption of digital banking platforms (mobile banking and internet banking).

Shankar and Jebarajakirthy (2018) empirically investigate the comprehensive moderated mediated mechanism for enhancing customer loyalty toward e-banking platforms via e-banking service quality (EBSQ) practices. Reliability, website design, privacy and security and customer service and support are the dimensions of EBSQ. Data were collected through structured questionnaires from a sample of 1,028 e-banking users in India. To test the hypotheses, a structural equation modeling approach was used. The findings showed that of the EBSQ dimensions, reliability along with privacy and security enhanced customer loyalty to e-banking. The initial trust in e-banking mediates the effects of EBSQ dimensions on customer loyalty except for website design. The mediation effects of initial trust varied between high and low-involved consumers.

Phan, Ho, and Le-hoang (2020) examined the factors affecting the behavioural intention and behaviour of using e-wallets of youth in Vietnam. The study examines an empirical case that explores the key constructs of the unified theory of acceptance and use of

technology (UTAUT) (Venkatesh, Morris, Davis & Davis, 2003) and the relationship between security and privacy of the theory of perceived risk (TPR) (Bauer, 1960). This study employs survey data of 200 young internet users aged 18 to 25. The study was conducted through two steps: preliminary research by qualitative research method to form the official research scale then formal research by quantitative research method using CFA and SEM to test the research model. The research results show that performance expectancy and social influence significantly predict behavioural intention to use e-wallets in payment. in contrast, the factors, namely, security and privacy, and effort expectancy, are statistically insignificant on behavioural intention.

Singh and Rajput (2019) investigate the impact of online banking attributes on customer satisfaction from the Irish retail banking customer perspective. The five most relevant online banking attributes identified from the literature were Ease of Use, Reliability, Efficiency, Convenience and Security. A mixed-method approach of a self-administered questionnaire survey was used to achieve the research objectives. Fifty-two participants were surveyed in the IFSC, Dublin, based on simple random and convenience sampling method. The collected data was analysed through an Excel file. The findings indicate that all five online banking features positively impacted customer satisfaction, whereas the reliability and convenience are the

most dominant factors, and security attribute remains a concern for the customers in Ireland.

H_{02} = There is no significant relationship between internet security and customer's behavioural intention to adopt cashless transaction in Bauchi metropolis.

METHODOLOGY

The study used survey research design. The population of the study consist of customers of 12 bank branches in Bauchi metropolis. Thus, Zenith, Access, First, Fidelity, FCMB, Sterling, Unity, Polaris, Keystone, Standard chartered, Jaiz and Taj bank. Sample size of the study is 384 obtained from Fisher, et al., (1991)'s sampling size formular. The study used purposive and convenience sampling techniques. Structured questionnaire was used to gather data from respondents. Partial Least Square Structural Equation Modelling (PLS-SEM) was used to analysed the data collected with help Advance Analysis for Composites (ADANCO) Software.

RESULT AND DISCUSSION

ADANCO software programme for PLS-SEM, which also includes path modelling, was employed to determine the reliability and validity survey instrument. The model for pilot study is presented in Figure 1.

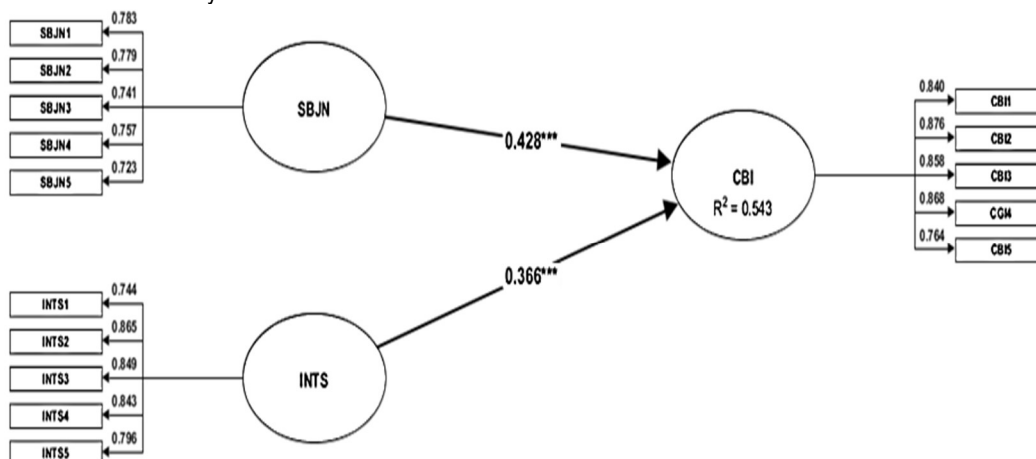


Figure 1: The model for pilot study.

Corresponding author: Rabiata Ismail Burga

✉ burqanism0@gmail.com

Department of Business Administration, Saadu Zungur University Bauchi, Bauchi State.

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Internal Consistency Reliability

The internal consistency reliability can be achieved when the Dijkstra-Henseler's rho (ρ_A), Jöreskog's rho (ρ_C) (composite reliability) and Cronbach's alpha(α) value of each construct surpasses the satisfactory threshold value of 0.7 (Hair *et al.* 2017). Table 1 show that each construct has the value of 0.8704 to 0.9241 as composite reliability which exceeds the recommended threshold value of 0.7. Therefore,

the results indicate that the internal consistency reliability of the constructs represented by the indicators of this research is satisfactory. This outcome of this study is in line with previous study of Shankar and Jebarajakirthy (2018), Singh and Rajput (2019) who in their study on adoption of internet banking affirmed significant effect of internet security on intention to use internet banking.

Table 1: Construct Reliability

Construct	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_C)	Cronbach's alpha(α)
SBJN	0.8154	0.8704	0.8139
INTS	0.8864	0.9114	0.8786
CBI	0.9039	0.9241	0.8972

The result of the combined effect of subjective norms and internet security on customer behavioral intention indicates that the exogenous constructs explain 54.07% of the variance in customer behavioral intention as presented in Table 1. Similarly, the levels of acceptance are: p value < 0.05, t value > 1.965 (Hair *et al.* 2016). Besides, the Therefore, the outcomes of the hypothesis's tests for this research on the ground of the rules mentioned as presented in Table 1 and Figure 1.

H₁: - Subjective norm has significant effect on customer behavioural intention to use cashless transaction. The findings in Table 1

shows that Subjective norm has $\beta = 0.4278$, $t = 8.4275$, $p < 0.005$. The result is supported since the calculated value is less than 0.005. The findings of this study are consistent with study of Olaolu (2022), Phan, Ho, and Le-hoang (2020) who affirmed that subjective norms have significant effect of on behavioural intention.

H₂: - Internet security has significant effect on customer behavioural intention to use cashless transaction. The findings of the study that Internet security has $\beta = 0.3689$, $t = 7.0497$, $p < 0.005$. this result is supported since the calculated value is less than 0.005.

Total 1: Effects Inference for Hypotheses Testing

Effect	Original coefficient	Standard bootstrap results				Decisions
		Mean value	Standard error	t-value	p-value	
SBJN -> CBI	0.4278	0.4274	0.0508	8.4275	0.0000	Supported
INTS -> CBI		0.3689	0.0520	7.0497	0.0000	Supported
R ²	0.3664					
Adjusted R ²	0.5427					
	0.5407					

CONCLUSION AND RECOMMENDATIONS

The result of showed p-value for variables was less than 0.05. It indicated all independent variables dependent variable have a significant relationship which is p-value less than 0.00. The factors that influence the intention to use

the cashless transaction are perceived usefulness, perceived ease of use, subjective norm and internet security. This study provides an opportunity for the bank customers and more get to know about the cashless transaction mode. There are some limitations during carrying out this study. In order to avoid incidents where internet

Corresponding author: Rabiata Ismail Burga

burganismo@gmail.com

Department of Business Administration, Saadu Zungur University Bauchi, Bauchi State.

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connectivity can be unstable, service provider shall consider adding the ability to pay even without the internet connection. It is suggested that service providers offer tangible or intangible rewards including discount, free trial, gifts for a period of time to encourage customers to use an existing service or try a new one.

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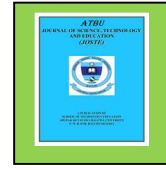
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Corresponding author: Rabiata Ismail Burga

✉ burganism0@gmail.com

Department of Business Administration, Saadu Zungur University Bauchi, Bauchi State.

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