Determinants of Behavioural Intention to Use E-Payment System in Nigerian Retail Industry: A Conceptual Extension of UTAUT with Concern for Customers

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Abstract

A number of scholars have emphasised the need for change in business processes. These changes are often necessitated by new technological development, changing consumer preference, cultural pluralism, knowledge capital, and globalization. It is therefore paramount that business organisations must embrace change in order to survive the competitions in nowadays ever-growing technology-driven marketplace. Nigerian business environment is not in isolation in this regard, owing to the introduction of new payment process to the economy; the cash-less policy, which entails all business to change their payment process to an electronic based. There is so much resistance to change from the merchants, thus calls for a research to identify the factor that can influence the merchants to adopt the change. The volume and value of cash-based transactions in Nigeria is high and expected to rise. This is linked to non-adoption of new e-payment process introduced by the Central Bank. The adoption of Point of Sale (POS) terminal is reported to be very low. A number of researchers have used several technology adoption theories to answer a similar phenomenon, but their studies were fragmented. Thus the Unified Theory of acceptance and Use of Technology (UTAUT) combined eight among those numerous theories and models of technology adoption, toward a unified view. However, several studies that used UTAUT and investigate behavioural intention to use technology yielded conflicting findings. Therefore the current study, based on review of past literature, observed that despite the important of customers to every business enterprise, it was found that previous researchers have neglected their influence on managers' behavioural intention. Thus the current study conceptualised that managers' behavioural intention to use POS is expected to be influenced by their concern for customers. Therefore, the current research proposed to extend UTAUT with a new construct "Concern for Customers", to enhance the current understanding of behavioural intention. Specifically, to investigate the managers' behavioural intention to use point of sale (POS) terminal in Nigerian retail industry. This research contributes in two folds; practically and theoretically. Customer is the main focus of any business enterprise, thus require attention. This concern for customer is expected to influence the decision of retail industry managers. Therefore, by incorporating this construct into technology adoption research, findings of the will help the industry players and regulators in formulating policies that considers the customer's preference. The conceptual paper compares only on the fundamental concepts and findings, thus calls for an empirical validation of the proposed framework.

Keywords: Retail business, technology adoption, strategic change, e-commerce

INTRODUCTION

The rapidly ever-changing and yet technology-driven market place stresses a paradigm shift in the approach to managing businesses, thus requires the deployment of alternative management designs. Also, with the advancements in information and communication technology (ICT), such as e-commerce, business processes becomes much easier, but yet the competition from external environment remains or even stiffer (Ahmad, 2012). These necessitate the emergence of technology management approach to managing businesses.
Nigerian business environment is not in isolation in this regard, as managers of Nigerian economy has shown some great concerns on the high volume and value of cash circulating in the economy, which resulted in persistently high ‘actual and projected’ cost of cash management (China, 2011). The phenomenon is linked to resistance to payment process change by merchants, from cash-based to cashless payments such as POS, because of the emergence of business process technologies such as electronic payment system (EPS). Even more worrisome, the Federal Government of Nigeria through the Central Bank of Nigeria (CBN) has embarked on a serious monetary policy revolution it called “the cash-less policy”, which entail payment processes to be done electronically, using various forms of e-payment systems. EPS is a form of a financial change that takes place between the buyer and seller facilitated by means of electronic communications (Turban et al., 2009).

THEORETICAL BACKGROUND

Jean, et al., (2011) declared that acceptance and use of e-payment systems by consumers and businesses, largely depends on economic condition, technological sophistication and social factors among others (Ayo and Ukpere, 2012). Although there is rise in the level of acceptance and use of ICT, ironically, there is raise in the amount of physical cash circulating in Nigeria (Ayo and Ukpere, 2012). Similarly, Ogunleye et al. (2012) believed that there is growth in technological development in the retail payment mechanism, but that has not changed situation from cash-based to cashless. This in inline with Alozie et al. (2011) assertion, who posited that sub-Saharan Africa is lagging behind in terms of adoption/diffusion of information systems and technologies compared to other continents.

In the field of technology management, several researchers have previously used the conventional theories; Innovation Diffusion Theory (IDT) (Rogers, 1962), Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), Theory of Planned Behaviour (TPB) (Ajzen, 1991), Social Cognitive Theory (SCT) (Compeau & Higgins, 1995), Technology Acceptance Model (TAM) (Davis, 1985), Model of PC Utilization (MPCU) (Thompson & Higgins, 1991), The Motivational Model (TMM) (Davis et al., 1992), Task Technology Fit (TTF) (Goodhue & Thompson, 1995), Combined TAM and TPB (C-TAM-TPB) (Taylor & Todd, 1995), TAM2 (Venkatesh & Davis, 2000) and relatively broader model, The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). The purpose of this study is to propose an extension of the UTAUT, to account for a new variable “concern for customers”. This aims to further enhance our understanding of behavioural intention to use technology.

BEHAVIORAL INTENTION

The main variable of interest to the researcher in this study is Behavioral intention to use e-payments system. Several researchers asserted that behavioral intention is the most important determinant of actual behavior. For example, Zhou, (2008) argued that the most important factor that determines user acceptance and use of technology such as e-payment, is the user’s intention. Behavioral intention has been widely researched, especially in the information system research; however, there is need for further research to further enhance our understanding of the phenomenon. “Extensions to the various models identified in previous research mostly enhance the predictive validity of the various models beyond the original specifications” (Venkatesh et al., 2003).

Literature review of previous studies has revealed a number of variables as factors that influences behavioral intention. For example, Perceived risk and Perceived relative benefit (Lu et al., 2010), Compatibility, Perceived Ease of Use, Perceived Usefulness, Perceived system quality and Computer self-efficacy (Chang & Tung, 2008), Variety of 3G services and Service quality (Mardikyan et al., 2012), Attitude, Subjective norm and Self-efficacy (Lam et al., 2007), Impulse Purchase Orientation, Quality orientation, Brand orientation, Online Trust and Prior Online Purchase Experience (Ling et al., 2010), Perceived usefulness, Perceived price, Perceived security, Perceived enjoyment, Social influence, gender and income (Du et al., 2012), Recommendation Sources, Perceived Trust and Perceived Risk (Lin et al., 2010), Perceived risk, Privacy Concerns and Trust (Liao et al., 2011), Flexibility of WBT system, System interactivity System enjoyment, Performance Expectancy, Effort Expectancy, Social Influence and
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Facilitating Conditions (Alrawashdeh et al., 2012), Performance Expectancy, Effort Expectancy, Social Influence and Disturbance Concerns (Lai et al., 2009) etc.

Having consider the unification of greater number of these variables by Venkatesh et al., (2003) and theorized UTAUT and its subsequent performance in explaining about 70% variance in behavioral intention (Van Biljon & Kotzé, 2007; Venkatesh et al., 2003; Wu et al., 2007). This study selected four main constructs of the UTAUT namely; Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions.

Performance Expectancy

The variable is defined as “the degree to which an individual believes that using the system will help him/her to attain gains in job performance” (Venkatesh et al., 2003). The constructs that are similar to performance expectancy in the past models and theories are perceived usefulness of TAM, relative advantage in DOI, job-fit in MPCU, outcome expectancy in SCT and extrinsic motivation in TMM. The effect was stronger in male younger workers (Venkatesh et al., 2003). Interestingly, empirical evidences from past literatures confirmed that age and gender plays very important moderating effect on the influence of performance expectancy on behavioural intention.

Effort Expectancy

Effort expectancy is “the degree of ease associated with the use of system” (Venkatesh et al., 2003). Origins of the construct can be traced in TAM as perceived of use, DOI and MPCU as complexity. According to Venkatesh et al. (2003), evidences from past literature indicated that the influence of effort expectancy on behavioural intention is stronger in older workers and young women, thus they hypothesised gender, age and experience to moderate the relationship between the constructs.

Social Influence

Venkatesh et al. (2003) defined it as “the degree to which an individual perceives that important others believe he/she should use the new system” (Venkatesh et al., 2003: 451). This construct is synonymous to subjective norms in TRA, TAM, TPB and C-TAM-TPB. It can also be traced to MPCU and DOI as social factors and image respectively. Similarly, age, gender, experience, and voluntariness of use were theorised to moderate the influence of social influence and behavioural intention, because past literatures has proven that the effect was stronger in women and those with experience in mandatory situation (Venkatesh et al., 2003).

Facilitating Conditions

The variable is defined as “the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system” (Venkatesh et al., 2003: 453). Similar to UTAUT’s facilitating conditions in the past models and theories are TPB/DTPB’s perceived behavioural control, DOI’s compatibility and TAM-TPB’s facilitating conditions. Ironically, presence of performance expectancy and effort expectancy diminishes the influence of facilitating conditions on behavioural intentions. However, empirical evidence proved that the influence is stronger for experienced older workers, thus age and experience are hypothesised to moderate the effect (Venkatesh et al., 2003).

Contextual Alignment

Interestingly, Chiemeke and Evwiekpaefe (2011) relates that the perception of several users of new electronic devices such as the POS, is that the system is somewhat difficult to use and are doubtful of its performance. Similarly, Biola and Dan (2012) argued that behaviors of Nigerians are usually controlled by the actions of others, whom they have a high regard for, such as friends, parents, religious leaders, sports personalities, teachers, and politicians and celebrities. Their behaviors are also reactive to the influence of television, radio, internet, social media and print media.
It is therefore appropriate to conclude that the resistant to change to e-payment systems by merchandise in Nigeria can be associated with lack of adequate infrastructure to support the use of the system, fear of uncertainty of the performance of the system and the required effort and influence of people who are important to others. Therefore there are substantial justifications to theorise that UTAUT constructs; Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions are related to the Nigerian context, thus this study conceptualised that they are factors that influences the adoption of technology in the said context. Elaborate discussion on the above mentioned constructs and proposed extension of UTAUT model will be provided in the subsequent sub-sections.

EXTENSION OF UTAUT MODEL

Researcher’s closed observation of the trend in technology adoption research in the consumer context has disclosed that several researchers have studied numerous factors which influences consumers or customers to accept and use technology (Liao et al., 2011; Lu, et al., 2010; Suki & Ramayah, 2010) etc. Results of these studies revealed diverse views of the customers. Some expressed apprehensiveness towards use of the systems, while others are optimistic about the performance and security of the systems. Despite the importance of the customers to business and their subsequent divergent views about the use of information systems, there are limited or no study that examines the merchants’ perception of the sensitivity of their customers toward technology. Therefore this study proposed an extension of the UTAUT theory with “Concern for Customer” variable, to test its relationship with behavioral intention.

Extending the theory can be seen in Venkatesh et al. (2003: 471), when they suggested as thus; “Future research should focus on identifying constructs that can add to the prediction of intention and behaviour over and above what is already known and understood”. Lallmahamood (2007) argued that there might be other important variables that can better explain intention, which were not included in his study, thus other variables should be further investigated since UTAUT focused on performance expectancy, effort expectancy and social influence to predict intention (AbuShanab & Pearson, 2007; Oshlyansky et al., 2007).

Similarly, Chen, et al. (2011) acknowledged that extending UTAUT has yielded some reasonable success in predicting intention and subsequent usage. For example, Gao and Deng (2012) extended UTAUT with “perceived cost” construct. Their extension was able to explain 74% of variance in intention, above the 70% achieved in Venkatesh, et al. (2003). It should be observed that Venkatesh, et al. (2003), Oshlyansky, et al. (2007) and AbuShanab and Pearson (2007)’s suggestions remained opened, provided that it can be argued that the proposed variable is an important one. Based on the above therefore, the current research proposed an extension of UTAUT with “Concern for Customers” construct to expand the body of knowledge of the phenomena under investigation.

Concern for Customers

Because the construct is the researcher’s coinage, thus there is limited definition available in the literature. However, it can be defined by decomposing the phrase in to two parts; concern and customer, sought for their definition from the literature and then generate a definition out of them. A customer can be a person or business entity who receives goods and services from a vendor in exchange for a payment. The customer and vendor are likewise known as client, buyer, or purchaser and seller, or supplier respectively (Kendall, 2006; Reizenstein, 2004). Similarly, Business Dictionary (2010) defined customer as a recipient of goods and services, who is at liberty to switch from one vendor or product to another. On the other hand, concern is synonymous with care, anxiety, worry, or being bothered. Therefore this research defines “concern for customer” as the degree to which a merchant is bothered with anything that will form a negative impact on the customer’s perception of their business processes.

Fillion, et al. (2011) concluded that studies on adoption of technology among individuals has been widely researched in the last 20 years. Furthermore, Suki and Ramayah (2010) emphasised that nowadays customers are exposed to numerous technological innovations such as the POS. Acceptance
or rejection of such technologies by the customers is certainly not dependent on whether they have used the device or not. Customers in this day and age also have access to information on other products and vendors, thus they have power over the vendors, because of access to alternative products. Therefore they assume control of the market (Hammer & Champy, 1993). As essential as customer to businesses, it is expected that the merchandise are uncertain of the reaction of their customers would be once the merchandise adopted the new payment system, hence are hesitant to accept it (Van Birgelen, de Ruyter & Wetzels, 2003).

It should be noted that credit and debit cards are means through which POS payments are made (Agabonifo et al., 2012). However, there is the problem of number of holders of credit or debit card among Nigerians. Chiemeke and Evwiekpaefe (2011) expressed concern that only few Nigerians are holders of credit/debit card despite its large population of over 170 million people. This study therefore conceptualises Concern for Customers will influence merchandise’s behavioural intention to use POS. The new construct make an extension of UTAUT theory. The proposed research framework in this study gives a picture of the whole idea of the study and illustrates the schematic diagram as follows:

CONCLUSION

The UTAUT was formulated by leading researchers in the technology acceptance domain. The model was formulated based on conceptual similarities among eight dominant models in the field. According to its authors, the UTAUT is a definitive model that synthesized what is known and advances cumulative theory while retaining a parsimonious structure. Although it was tested, extended and found proven, its extention will further provide explanations to other unique phenomena and contexts, such as Nigerian retail industry. As part of an ongoing research, the authors will sought for the measurement items from the literature and emperically validate the proposed framework.
References


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