Scientific Research Publishing

Open Journal of Business and Management, 2023, 11, 1832-1853
https://www.scirp.org/journal/ojbm
ISSN Online: 2329-3292
ISSN Print: 2329-3284

Factors Influencing the Adoption of E-Services by the Informal Sector: A Case of ECIS under NAPSA

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How to cite this paper: Musenga, M., & Phiri, J. (2023). Factors Influencing the Adoption of E-Services by the Informal Sector: A Case of ECIS under NAPSA. *Open Journal of Business and Management, 11,* 1832-1853.
https://doi.org/10.4236/ojbm.2023.114102

Received: February 20, 2023
Accepted: July 24, 2023
Published: July 27, 2023

Abstract

The study was conducted to investigate the factors influencing the adoption of e-services by the informal sector under the Extension of Coverage to the Informal Sector (ECIS) under NAPSA. The study adopted the UTAUT framework model from which five variables were examined which are: performance expectancy, effort expectancy, social influence, facilitating conditions and behavioral intention to determine the factors influencing the actual use of eService systems. The researcher adopted a mixed methodology approach which applied both quantitative and qualitative techniques of data collection and analysis. A sample size of 301 marketeers was randomly selected and determined using the (Moazzam, 2014) formula, from which data was using questionnaires and analyzed using SPSS. The demographic data shows that most of the respondents from the marketeers where female with a frequency of 211 out of 301 respondents which accounted for 70.1% of the total respondents with males having a frequency of 90 out of 301 accounting 29.9%. The results from SPSS outputs indicate: the correlation coefficient of −0.329 with p value of 0.061 indicates a negative relationship between performance expectancy and the use of ENAPSA services by the marketers. Effort expectancy is not significant with the Pearson correlation of 0.096 with a p value of 0.072. Social influence is not significant as indicated in the table above with the Pearson correlation of 0.042 with a p value of 0.001. The correlation coefficient of 0.312 with p value of 0.002 indicates a positive relationship between facilitating conditions and the use of ENAPSA services by the marketeers. The correlation coefficient of −0.181 with a p value 0.052 indicates a negative relationship between behavior intention and the use of ENAPSA services by the marketeers. From the five variables, social influence and facilitating conditions which are driving the adoption of ENAPSA ser-

vices. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers. This article is organized as follows: Introduction, literature review, methodology (Introduction, research design, population, sample size, sampling design and technique and data collection tools) including research model and research hypothesis, results and discussion having demographic info analysis (gender, age, education level), descriptive statistics (inferential stats analysis using correlation for PE, EE, SI, FC and BI against Actual usage and summary of the results). Conclusion and recommendations will conclude the article with references ending the article.

Keywords

Adoption, UTAUT, NAPSA, ECIS, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intentions, Actual Usage

1. Introduction

ICTs play an important role in business as it has revolutionized operations and service delivery in all sectors across the globe. Information and Communication Technologies (ICT) have influenced all sectors including personal life and organizational management. Their prevalence has resulted in powerful and transformative products which affect our daily life (Kessio & Chumo, 2015). E-services refer to internet-based applications that fulfil service needs by seamlessly bringing together distributed, specialized resources to enable complex and often real time transactions (Scupola et al., 2009). These days we can observe a rapid growth in the development of e-services. An important trend in contemporary global economy in particular countries and in the international perspective is as a result of the fact that a new type of services is provided and consumed using internet based or electronic system is of great importance to the marketing strategy services (Brzustewicz & Esher, 2016). Adoption of ICT by businesses facilitates operational efficiency, internal and external communication, reduction in operational cost, knowledge management, decision making and improved service delivery. ICTs have brought about a new dimension in institutions, that of enhancing the touchpoints the public institutions have with their customers, with an aim of a differentiated customer service and customer experience. The business ICT system provides abundant advantages to customers, however, there is still an absence of trust among some customers. Absence of face-to-face interaction makes it very impersonal (Mukuwa & Phiri, 2020). Thus, customers are more comfortable dealing with people in a physical office setting that provides personalized services as opposed to mechanical interaction. Many customers still do not trust the on-

line mode of service especially for money related transactions. Users who are not familiar with e-services feel very uncomfortable as they have doubts regarding the accuracy of the transactions done online (Lishomwa & Phiri, 2020).

In recent years, the National Pension Scheme Authority (NAPSA) has become aware of incorporating service delivery in its strategy, including initiatives like extension of coverage to the informal sector, decentralization of benefits processing, introduction of use of technology in funds management, enhancing communication links in the authority and external agencies among other initiatives (NAPSA, 2018). In general terms, the use of ICT to provide eservices impacts social security delivery, as it facilitates targeting by identifying beneficiaries more effectively, improves payment mechanisms, allows savings on operational cost and on benefits provided. ICTs increase accountability, transforms, and extend the reach of service delivery to the underserved in an innovative, fast and cost-effective manner. ICTs increase accessibility, inclusivity and flexibility in service delivery and allow more citizens to interact with government with the flexibility of choice offered by multiple delivery channels and in more convenient time frames (Misuraca et al., 2017). There is still more room to exploit the benefits that the digital technologies can provide to further reduce costs and widen the reach of the formal financial sector (2017-2022 National Financial Inclusion Strategy). To achieve this, it is inevitable to understand the fundamental factors that drive the adoption of digital/eservices (Daka & Phiri, 2019).

E-NAPSA was introduced in January 2017 which is a web-based service portal through which employers and employees transact with the authority. This was done to decongest the offices particularly when deadline for monthly statutory payments was approaching. Employers can register employees and file monthly returns, members can also register on the portal and keep track of their details, contributions, and benefits information online (NAPSA, 2018). NAPSA has several ICT platforms that can be used to access its services, including E-NAPSA website, NAPSA mobile, NAPSA on Facebook and NAPSA app platforms.

NAPSAs ICT solutions for service delivery include online employer and member/employee registration, submitting monthly returns, making payments towards monthly contributions, and checking account statements. Members are also able to view account details and balances and adjust where necessary. On the other hand, application for benefits payments has also been rolled out. Extension of social security coverage brings on board new members to NAPSA with the aim of ensuring that every worker in Zambia is socially protected. Therefore, Extension of Coverage to the Informal Sector targets informal sector that is characterized by low incomes, high poverty levels, absence of unionism, and lack of social security. Thus, informal economy workers are highly vulnerable to the ills of poverty and social exclusion in the event of old age, invalidity, or death. Under NAPSA, the following five (5) sectors have been identified as priority areas; domestic workers, bus and taxi drivers, sawmillers, marketeers and traders and small-scale farmers (NAPSA, 2013).

1.1. Statement of the Problem

Even though e-service systems provide numerous advantages to both organizations and customers, but there is a lack of trust among some public customers. Absence of face-to-face interactions makes an impersonal setting. Thus, some customers are comfortable with people in a physical banking setting that provide personal service in place of mechanical interaction. Most customers have challenges trusting online services especially for money related transactions. Furthermore, users who are not familiar with eservices feel uncomfortable as they doubt accuracy with online transactions (Lishomwa & Phiri, 2020).

Making about 80% of the Zambian work force, the informal sector plays an imperative role in contributing to the economy and hence the services provided by the formal organisations are important in making sure this contribution is documented and stored using eservices as they provide convenience and record. Therefore, this study is aimed at identifying what factors that influence adoption of eservices in the informal sector to use online services platforms provided and thereby address the factors affecting the sector contributing to the Authority's Objectives. The main aim of this study is to identify the factors influencing the adoption of e-services by the informal sector and how they can be used to improve adoption of e-services.

1.2. Conceptual Framework

In conducting the study, a conceptual framework developed shows the relationship between the independent variables and dependent variable. In the Extension of Coverage to the Informal Sector, the UTAUT Model has variables that will be adopted with identifying factors that influence technology adoption by the informal sector in contributing to the Authority meeting its objectives.

1.2.1. Theoretical Frameworks

According to (Attuquayefio & Addo, 2014), several technology acceptance theories and models have been applied to different phenomena and varying cultural settings in many studies, yielding varying results. Some of the results from these studies are consistent with the original postulations while others contradict them.

Over the past years, studies in technology adoption have developed many theories and models to elucidate and determine the factors that drive e-banking adoption.

Among these models are:

1) The Theory of Diffusion of Innovations proposed by Everett Rodgers explains how technology innovations are accepted and adopted by users. This model explains how an innovation is communicated through certain channels over time by a process known as diffusion.

2) Theory of Reasoned Action (TRA), which was developed by Ajzen & Fishbein (1975). It explains the relationship between attitude and behaviour in human actions. Attitudes are defined as the individual's evaluation of an object, belief as a link between an object and some attribute, whereas behaviour was

looked at as being a result or intention. The theory introduces another factor in predicting user behaviour that of a person's subjective norm.

3) Theory of planned behaviour (TPB): Developments were made on the TRA as theorized by Ajzen & Fishbein (1975). He proposed TPB which developed on the relationship between attitude and behaviour in human actions by introducing a new factor: perceived behavioural control which can be used to predict behaviour. Perceived behavioural control is explained as the behaviour that influences intention. It is a factor that is present in the theory of planned behaviour and not in the theory of reasoned action; this is the point of contrast for the two theories.

4) and TAM model that can be used to explain user's behaviour towards the adoption and use of m-banking services in Zambia. It was developed from the theory of reasoned action and so adapted some of its principles to the context of user acceptance of a system (Sakala & Phiri, 2019).

Another theory that can be used to explain user's adoption and use of new technologies is (Decomposed TPB) as theorized by Taylor & Tood (1995). The theory contains three main factors that can be used to explain what influences behaviour intention and actual behaviour adoption. These factors are: attitude, subjective norms; and perceived behaviour control.

Other theories are an extensively used model in IB adoption studies, Perceived Characteristics of Innovation (PCI), Decomposed Theory of Planned Behaviour (DTPB), Theory of Perceived Risk (TPR), Theory of Innovation Resistance (TIR) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Daka & Phiri, 2019).

1.2.2. UTAUT Model

The theoretical framework for the model, developed by Venkatesh et al. (2003) has four independent variables and two dependent variables, has four main constructs. UTAUT formulation is based on eight research models, namely, technology acceptance model, theory of reasoned action, hybrid model TAM-TPB, motivational model, theory of planned behavior, model of PC utilization, innovation diffusion theory and social cognitive JRIM theory. Detailed analysis of these eight models revealed that performance expectancy, effort expectancy, social influence and facilitating condition as primary determinants of behavior intention and ultimate usage of the system had significant influence on user intention to adopt technology (Samar Rahi, 2018; Mukuwa & Phiri, 2020).

Performance expectancy: "The degree to which an individual believes that using the system will help him or her to attain gains in job performance". Performance expectancy is hypothesized to moderate the influence on behavioral intention by gender and age.

Effort expectancy: "The degree of ease associated with the use of the system". Effort expectancy hypothesized to moderate the influence on behavioral intention by gender and age, and experience.

Social influence: "The degree to which an individual perceives that important

others believe he or she should use the new system". Social influence, hypothesized to moderate the influence on behavioral intention by gender and age, and experience, and volunteers of system.

Facilitating conditions: "The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. Hypothesized to moderate the influence on behavioral intention by age, and experience".

Behavior Intention and ICT adoption: Behavioral intention refers to the degree to which a person has made up a conscious decision to use of not to use eservices an organization provides (Daka & Phiri, 2019). Mwiya et al. (2017) define behavioral intention as "the degree to which a person has formulated conscious plans to perform or not to perform some specified future behavior". Intention is determined by a person's favorable or unfavorable attitude toward the use of that technology and his or her perception concerning its usefulness. The higher the level of intention, the higher the likelihood that such a behavior will be performed. In relation to e-banking, based on empirically data, scholars note that individuals with higher intentions to adopt e-banking are more likely to actually use e-banking services (**Figure 1**).

2. Literature Review

The factors affecting customers' adoption of E-services in different service pro-viding sectors in Zambia and different countries have been evaluated using different conceptual and theoretical frameworks over the years.

A study of The Effects of E-Services on Revenue Collection and Tax Compliance among SMEs in Developing Countries (Mukuwa & Phiri, 2020). With the concept of UTAUT Model was done to investigate the effects of these electronic services on revenue collection and tax compliance among small and

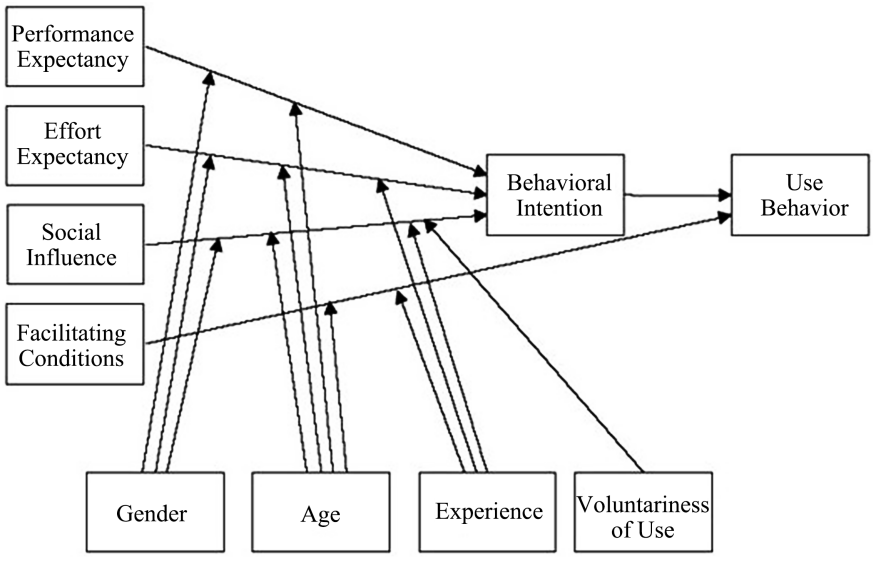

Figure 1. Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003).

medium enterprises in urban Zambia. This study also sought to identify factors that influence the acceptance and use of electronic services among SMEs using UTAUT (Mukuwa & Phiri, 2020), it was revealed that the UTAUT factors which include: 1) performance expectancy; 2) effort expectancy; 3) facilitating conditions and 4) behavior intention have a significant impact in the adoption of e-services on revenue collection and tax compliance. Using purposive sampling in their descriptive research, with Pearson's correlation analysis, this article uncovered that works should cover other categories of taxpayers to be all inclusive. Despite these limitations, the researcher ensured that care is taken so that the results presented were as accurate as possible.

Similarly, the research on Factors Driving the Adoption of E-banking Services Based on the UTAUT Model whose theoretical framework for the model has four main constructs: performance expectancy, effort expectancy, social influence, and facilitation conditions as primary determinants of behavior intention and ultimate usage of the system. The theory makes cognizant of demographics (gender, age, experience, and voluntariness of use) as moderators of the four constructs. This research was conducted to determine the underlying factors that drive the adoption of e-banking services based on the UTAUT model (Daka & Phiri, 2019). Some gaps to this research revealed the necessity of a study to be undertaken to cover other regions other than Lusaka to understand if the results are applicable across Zambia. A mixed method study approach was picked to be of choice for future research as current research has made use of a quantitative approach and results may be limited. Research can be done to explain the barriers hindering the adoption of e-banking services and recommended that using a similar research structure, the research can be done using other technology models and theories.

Likewise, in the study by (Rahi et al., 2018), the mediating role of performance expectancy and effort expectancy, outlined gaps included:

1) User intention to adopt internet banking as an outcome variable; therefore, integrating actual usage of internet banking as endogenous variable could reveal interesting findings.

2) Data collected from metropolitan cities of Pakistan; adding respondents from countryside may enhance the veracity of the data. This study is cross-sectional and had examined internet banking adoption problem at one point of time. Future researchers may analyse this study in longitudinal mode.

3) The integration of unified theory of acceptance and use of technology with e-service quality was in the internet banking adoption context. Therefore, the investigation of this research model in other online domains would be interesting, such as online shopping website or small and medium financial websites.

The UTAUT formulation is based on eight research models, namely, technology acceptance model, theory of reasoned action, hybrid model TAM-TPB, motivational model, theory of planned behaviour, model of PC utilization, innova-

tion diffusion theory and social cognitive JRIM theory. Detailed analysis of these eight models revealed that performance expectancy, effort expectancy, social influence and facilitating condition had significant influence on user intention to adopt technology.

Also, In Use of UTAUT Model to Assess ICT Adoption in Kenyan Public Universities (Kessio & Chumo, 2015), the UTAUT model composing of performance expectancy, effort expectancy and social factors variables have direct effects on the behavioral intention which in turn impacts the use behavior. However, facilitating conditions variable has direct effect on the use behavior. With simple random and purposive sampling and analysis using The Cronbach's Alpha results from the SPSS version, gaps in this study revealed that the study suggests that to enhance uptake of information systems in Kenyan universities, there is need to increase awareness and develop training programs to enable students and other end users to embrace. Also, this study focused on students in a public university and therefore the research findings cannot be generalized to all users. Further research could be done to cover all users including both public and private universities.

A study was done (Sakala & Phiri, 2019) to determine factors affecting adoption and use of mobile banking services in Zambia Based on TAM Model, the conceptual framework. TAM was used to explain user's behavior towards the adoption and use of technology by three factors: Perceived Ease of Use (PEU), Perceived Usefulness (PU), and Attitude toward using the system. The aim of this study was to identify the factors that affect the adoption and use of mobile banking services in Zambia based on the Technology Acceptance Model (Sakala & Phiri, 2019). Using interviews and survey questionnaire for primary data which was quantitative in nature, this research results used descriptive correlation and regression analysis, which pointed out the need to promote the factors that affect the adoption and use of m-banking services. Little awareness of benefits of e-banking services that include financial inclusion, easy access to e-banking services and convenience in performing transactions was another finding. There is a lack of provision of information on how to access and use the services and there should be consideration in sampling rural parts of the country. There was also a request to use the UTAUT model to validate the research findings generated on this study.

Soneka and Phiri whose study was titled A Model for Improving E-Tax Systems Adoption in Rural Zambia Based on the TAM Model. The objective of this study was to assess the factors that influence the level of e-tax systems adoption in Zambia with a focus on Tax Online system used by domestic taxes division in Zambia (Soneka & Phiri, 2019). Hypothetical background of TAM which is an information systems theory that models how users come to accept and use a technology. Analysis used Correlation and p values in their purposive sampling methods with gaps including need to continue sensitizing and educating taxpayers for them to appreciate the usefulness of E-Tax system and adopt it fully. Also, the need to increase the awareness on the usefulness of Tax online when it

comes to electronic returns and payments and how taxpayers work will be reduced if they submit their returns electronically as opposed to manually. There is a need to increase the trainings and taxpayer education on how to use Tax Online and to increase the adoption of E-Tax system (Tax online) if the system can be simplified further to accommodate those who still feel Tax Online is complicated to use that needed to be addressed.

Examining Factors Influencing E-Banking Adoption: Evidence from Bank Customers in Zambia by (Mwiya et al., 2017) contributes to the electronic banking literature by applying the modified Technology Acceptance Model (TAM) in an under-researched Zambia context that influence attitudes to e-banking intention and actual adoption of e-banking services and shows to policy makers and scholars that improves perceptions of trust, usefulness and ease of use of e-banking systems would increase adoption by (Mwiya et al., 2017) and revealed gaps including a suggestion of future study to consider a sample that reaches the whole country as the study was cross-sectional, therefore the findings could only offer a snapshot of the phenomenon. The authors suggested further research, therefore, should attempt longitudinal designs that explore the transition from intention to actual behavior, the results will allow for correlational inferences rather than causality. To show causation, longitudinal research, possibly in a quasi-experimental design, may be necessary. Modified TAM model was used, and the model employs perceived usefulness, perceived ease of use and perceived trust as independent variables to determine attitude.

Lufwendo and Phiri wrote on Adoption of Internet Banking Services by Corporate Customers for Forex Transactions Based on the TRA Model. The study looked to identify the factors inhibiting the corporate customers of FNB industrial branch from adopting internet banking technologies and focused solely on corporate customers (Lishomwa & Phiri, 2020). Findings on this research were derived from descriptive research using the TRA model. Theory of Reasoned Action suggests that a person's behavior is determined by their intention to perform the behavior and that this intention is, in turn, a function of their attitude toward the behavior and subjective norms. It was invented to address the knowledge gaps in research which resulted from a weak correlation between attitude and voluntary behavior. Sampling technique used was homogenous purposive sampling technique on a sample size of 150. Research analysis used correlation and regression analysis. Research gaps included lack of awareness as the most important factor that negatively affects internet banking adoption.

Customer Perception towards Adoption of e-banking Services in Kathmandu: A Survey of Business School Students by (Scupola et al., 2009) examines the association between the perception of business school students and their adoption of e-banking services (Sthapit & Bajracharya, 2019) highlighted findings including being descriptive research on a convenience sampling method, a non-probability sampling technique. The TAM Model used is a theory developed from the Theory of Reasoned Action (TRA) specifically tailored for modelling user

acceptance of information systems. This model is most widely used for exploring user acceptance of a technology. The study has made use of percentage analysis and ranks as well as t-test, correlation and regression analyses, and gaps emphasized. The similarity of study results may be attributed to the fact that all of the countries covered by the studies are the developing nations with average levels of technological up-gradation enshrined in e-banking services and share commonality with Nepal in the studied context.

Aemro Worku and Haile Shitahun Mengistie writing on Measuring Customer's Attitude Towards Internet Banking Adoption, in Ethiopia: The purpose of this study was to measure customers attitude towards internet banking adoption using TAM and DTPB (Worku & Mengistie, 2020) and pointed out gaps so future studies should include more variables from different theories and models as well as additional social issues. Analysis used Multiple Regression Model and findings were derived from descriptive and explanatory research with random sampling technique on a sample of 384 out of population of 400. The Conceptual framework used was developed by the researcher based on TAM and DTPB. TAM is to provide an explanation of the determinants of technology acceptance and user behavior across a broad range of end-user computing technologies. The DTPB is an improved behavior model based on innovation diffusion theory (IDT), TPB, TAM, and it adopts the multidimensional belief structure Therefore, it is resilient to consider multiple impact factors for adoption of the technology and it can help the managers to consider the factor of affecting the consumers' behavior.

More papers by scholars on adoption of ICT services using different models and outcomes include:

(Kasanga, 2019) revealed there is positive relationship between respondents' perceived ease of use and perceived usefulness of the tracking system. The TRA Model was not examined in this study as with regard to technology acceptance by passengers and public transport users.

(Bwiingi, 2020) Mobile banking has influenced the commercial banks in Zambia to develop Agent businesses by licensing operators as agents of the banks. The study lacked the adoption of theory models like TAM, TRA's.

(Kalima, 2019) Mobile banking has affected the commercial banks performance in terms of being more innovative when it comes to service delivery. The performance of commercial banks was not analyzed in terms of profitability.

(Bwalya, 2009) There is limited ICT infrastructure in the public sector to support the adoption of e-government in Zambia. The main acceptance model theories like TAM and TRA were not examined.

(Elnaiem, 2011) Mobile money has eased the moving of money among Zambians. The risk associated in mobile money banking was not considered in the study.

(Lesa & Tembo, 2016) Retail banks and MNOs have not delivered m-payment service awareness tailored to increase acceptance to use of m-payment as a preferred payment channel. The risk associated in mobile money banking was not considered in the study.

Previous studies gaps have suggested covering different categories of a sample population, use of different theoretical and conceptual models, training targeted population and increase awareness and providing information on accessing and using eservices and simplifying systems to accommodate those who find systems complicated etc. This study will take on the informal population in regard to adoption of eservices.

3. Research Methodology

This chapter presents the methodology used in this study: Introduction, research design, population, sample size, sampling design and technique and data collection tools, trustworthiness, ethical considerations, and a chapter summary.

Introduction

Research methodology highlights the research approach and design the study will use and explains the target population for the research. It also presents the sampling design, sample size, data collection tools as well as the data analysis the study will use.

Research design

(Orodho & Kombo, 2002) further define a research design as the scheme, outline or plan that is used to generate answers to research problems. The study will adopt a descriptive research design. The mixed methodology approach was used, where both qualitative and quantitative data was obtained. The qualitative method helped to obtain in-depth information whilst the quantitative helped generalize the results. Advantage of mixed methodology is that it reflects participant's point of view. There are various research designs in research such as cross-sectional, longitudinal, descriptive, experimental, observational, exploratory, causal design just to mention a few. The most suitable research design for this study will be the descriptive research design as the study will seek to establish if the factors influencing the adoption of e-services by the informal sector under the Extension of Coverage to the Informal Sector exists between the independent and dependent variables which are Performance Expectancy, Social Influence, Effort Expectancy and Facilitating Conditions.

With the descriptive design, the study can identify the independent and de-pendent variables, to test units and to randomize participants in the study. This should create representative samples free from bias and thereby reduces sampling error. With this type of design, there is no need to study a whole population, but a sample can be drawn from the population and the results can be inferred to the population. Not only that, but the study will also need to statistically analyse the data.

Population, sample size, sampling design and technique

Population refers to a complete set of elements (persons or objects) that possess some common characteristics defined by the sampling criteria established by the researcher (Nalaila & Msabila, 2013). According to (Kasonde-Ngandu,

2014), sampling techniques or procedure is that part of the research plan that indicates how cases are to be selected for the study. The sample for the study included 301 marketeers from Kabuma market of Kanyama compound drawn from the target population 1409. These marketeers were selected using purposive sampling because they are the ones who on the platform for ECIS hence their experience was of value to this study since they are the target. The factors affecting and how to improve e-service adoption cab be better understood from their engagement. The sample size was arrived at using (Kothari, 2004) as strategy for collecting, measuring, and analyzing data.

$$n = z^2 pq/d^2$$

n: the desired sample size

z: the standard normal deviate usually set at 1.96 (which corresponds to the 95% confidence level)

p: the proportion in the target population to have a specific characteristic. If no estimate available set at 50% (or 0.50)

q: $1 - p$

d: absolute precision or accuracy, normally set at 0.05.

The sample size in this study was.

$$X = 1.96^2 \times 0.5 \times 0.5/0.05^2 = 384$$

$$n = 1409 \times 384/(384 + 1409 - 1) = 541056/1792 = 301$$

Therefore, a sample of 301 will be selected from the market. This sample will be representative of the target population.

Data collection tools

(Al., 2003) refers to research tools as tools that researchers uses to gather the necessary information. Data for this study will be collected using a cross section survey questionnaire which will be semi structured, that is, it will consist of closed as well as open ended questions. The use of both open and closed ended questions will enable respondents not to drift from the research topic but to remain focused on the top. The questionnaire will be distributed to the respondents directly through the market manager. A period of four days will be given to the respondents to complete answering the questionnaire and after that, the questionnaires will be collected back by the researcher.

3.1. Research Model

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Bogdan Biklen, 2003). In conducting the study, a conceptual framework developed shows the relationship between the independent variables and dependent variable. In the Extension of Coverage to the Informal Sector, the UTAUT Model has variables that will be adopted with identifying factors that influence technology adoption by the informal sector in contributing to the Authority meeting its objectives (**Figure 2**).

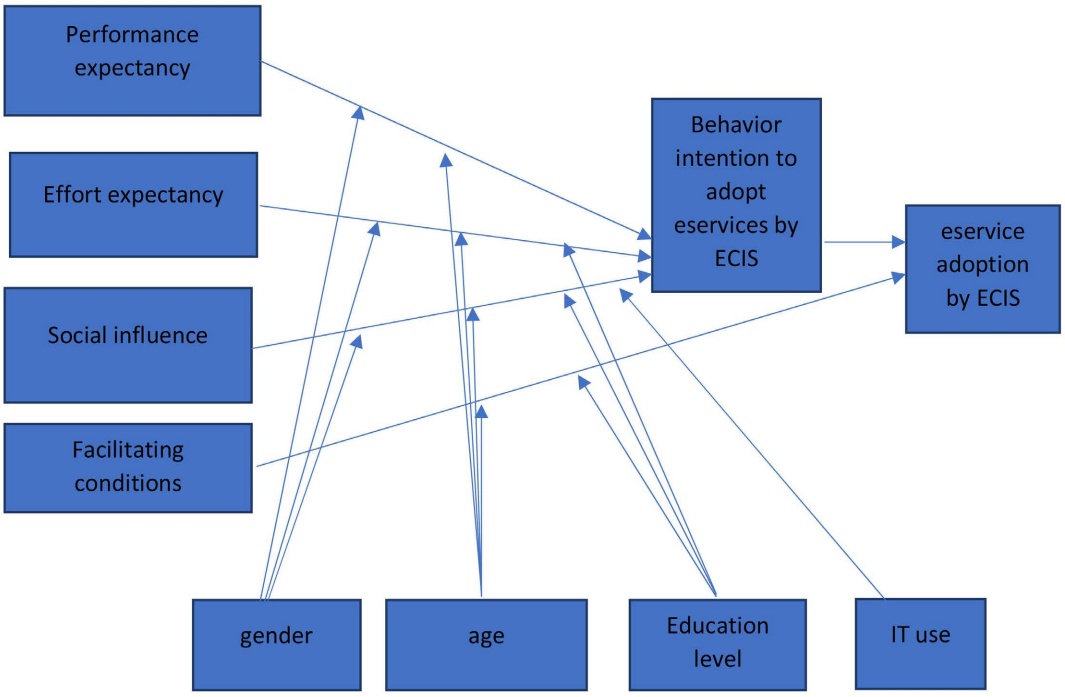

Figure 2. Adopted conceptual framework.

3.2. Research Hypothesis

H0: There is no relationship between performance expectancy and the use of e-NAPSA services through the NAPSA online portal

H1: There is a positive relationship between performance expectancy and the use of e-NAPSA services through the NAPSA online portal

H0: There is no relationship between effort expectancy adoption and the use of e-NAPSA services through the NAPSA online portal

H1: There is a positive relationship between effort expectancy adoption and the use of e-NAPSA services through the NAPSA online portal

H0: There is no relationship between social influence adoption and the use of e-NAPSA services through the NAPSA online portal

H1: There is a positive relationship between social influence adoption and the use of e-NAPSA services through the NAPSA online portal

H0: There is no relationship between facilitating conditions and the use of e-NAPSA services through the NAPSA online portal

H1: There is a positive relationship between facilitating conditions and the use of e-NAPSA services through the NAPSA online portal

H0: There is no relationship between behavioral intention and the use of e-NAPSA services through the NAPSA online portal

H1: There is a positive relationship between behavioral intention and the use of e-NAPSA services through the NAPSA online portal

The hypotheses above were generated based on the UTAUT Model (Venkatesh et al., 2003), taking the PE, EE, SI, FC, and BI as independent variables and

the adoption and actual use of e-NAPSA services as the dependent variable.

The five above hypotheses outlined were generated based on the UTAUT model and used in the study going forward.

4. Results and Discussion

Demographic Information Analysis

The demographic data shows that many of the respondents from the marketeers where female with a frequency of 211 out of 301 respondents which accounted for 70.1% of the total respondents with males having a frequency of 90 out of 301 accounting 29.9% (Table 1) (Figure 3).

Age category

The most frequent age group of the respondents was below or equal to the age of 20 represent a 49.2 percent with the frequency 148 respondents and the lowest age group is 60 and above representing the frequency of 5 and a percentage of 1.7 percent as indicated in the table below (Table 2) (Figure 4).

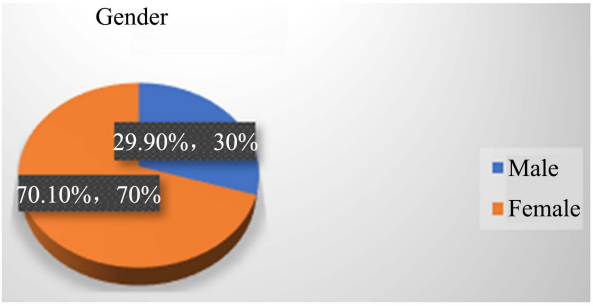

Figure 3. Gender.

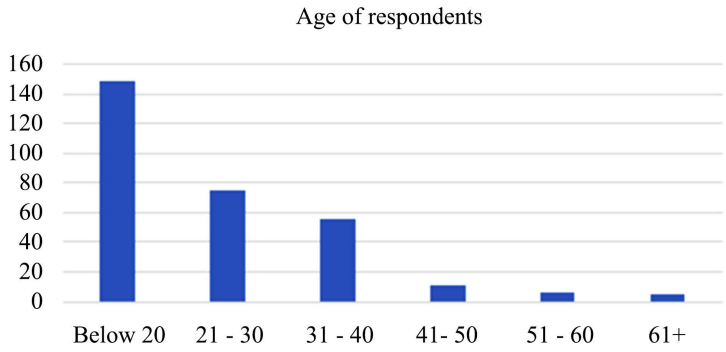

Figure 4. Age of respondents.

Table 1. Gender distribution.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	90	29.9	29.9	29.9
	Female	211	70.1	70.1	100.0
	Total	301	100.0	100.0	

Table 2. Age distribution.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 20	148	49.2	49.2	49.2
	21 - 30	75	24.9	24.9	74.1
	31 - 40	56	18.6	18.6	92.7
	41 - 50	11	3.7	3.7	96.3
	51 - 60	6	2.0	2.0	98.3
	61+	5	1.7	1.7	100.0
	Total	301	100.0	100.0	

Education level

The marketeers at Kabuma were subdivided into three major categories in terms of education leaving a gap for certificate holders. The most frequent traders is Secondary and High School (SHS) with the frequency of 246 representing 81.7%, this was followed by degree holders with a frequency 45 representing 15% and the least are degree holders with only 10 participants accounting for 3.3% (Table 3 and Figure 5).

Descriptive statistics

The results for descriptive statistics show the mean score rating for the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions and behavioral intentions. The rating ranges from 1 to 5 with the highest number indicating excellent results for performance expectancy and the lowest being the usage of e-services for NAPSA by marketeers. The highest mean is 4.1462 for performance expectancy and the lowest being the usage of e-services for NAPSA by marketeers. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers as shown in Table 4.

Inferential statistical analysis using correlation.

The results for inferential statistics indicate the relationship between the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intentions, and actual usage.

Correlational results for PE, EE, SI, FC and BI against Actual usage (Table 5)

Performance expectant and actual usage

The results from SPSS output indicate that the relationship between performance expectancy and the use of e-NAPSA services by the marketeers. The correlation coefficient of −0.329 indicates a negative relationship between performance expectancy and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the system based on how it is going to perform might not yield better results for them.

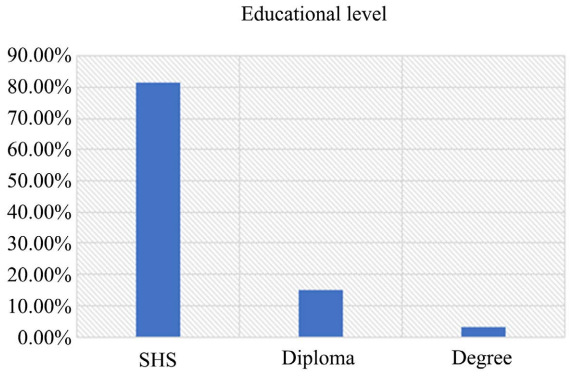

Figure 5. Educational level.

Table 3. Level of education.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SHS	246	81.7	81.7	81.7
	Diploma	45	15.0	15.0	96.7
	Degree	10	3.3	3.3	100.0
	Total	301	100.0	100.0	

Table 4. Descriptive statistics.

	N	Minimum	Maximum	Mean	Std. Deviation
Performance Expectancy	301	2.00	5.00	4.1462	1.20495
Social Influence	301	1.00	5.00	1.8837	1.51320
Effort Expectancy	301	1.00	5.00	3.4850	1.26119
Facilitating Conditions	301	1.00	5.00	3.6578	1.06732
Behavioral Intention	301	1.00	4.00	2.1362	0.57566
The Usage of NAPSA E-services By Marketeers	301	1.00	4.00	1.4485	0.97374
Valid N (listwise)	301				

Table 5. Correlations of the five variables.

		Performance Expectancy	The Usage of NAPSA E-service By Marketeers
Performance Expectancy	Pearson Correlation	1	−0.329**
	Sig. (2-tailed)		0.000
	N	301	301
The Usage of NAPSA E-services by Marketeers	Pearson Correlation	−0.329**	1
	Sig. (2-tailed)	0.000	
	N	301	301

**Correlation is significant at the 0.01 level (2-tailed).

Effort Expectant and actual usage (Table 6)

Effort expectance is not significant as indicated in the table above with the Pearson correlation of −0.096. From this it can be deduced that the marketeer's effort expectant does not influence the usage of e-NAPSA services.

Social influence and actual usage (Table 7)

Social influence is not significant as indicated in the table above with the Pearson correlation of 0.042. From this it can be deduced that the marketeers are not influenced by society's perception on the usage of e-NAPSA service.

Facilitating conditions and the usage of e-NAPSA services (Table 8)

The results from SPSS output indicate that the relationship between Facilitating

Table 6. Effort expectant correlations.

		The Usage of NAPSA E-services by Marketeers	Effort Expectancy
The usage of NAPSA E-services by Marketeers	Pearson Correlation	1	−0.096
	Sig. (2-tailed)		0.095
	N	301	301
Effort Expectancy	Pearson Correlation	−0.096	1
	Sig. (2-tailed)	0.095	
	N	301	301

Table 7. Social influence correlations.

		The usage of NAPSA E services by Marketeers	Social Influence
The usage of NAPSA E services by Marketeers	Pearson Correlation	1	0.042
	Sig. (2-tailed)		0.465
	N	301	301
Social Influence	Pearson Correlation	0.042	1
	Sig. (2-tailed)	0.465	
	N	301	301

Table 8. Facilitating conditions and the usage of e-NAPSA services correlations.

		The Usage of NAPSA E-service by Marketeers	Facilitating Conditions
The usage of NAPSA E-services by Marketeers	Pearson Correlation	1	0.312**
	Sig. (2-tailed)		0.000
	N	301	301
Facilitating Conditions	Pearson Correlation	0.312**	1
	Sig. (2-tailed)	0.000	
	N	301	301

**Correlation is significant at the 0.01 level (2-tailed).

conditions and the use of e-NAPSA services by the marketeers. The correlation coefficient of 0.312 indicates a positive relationship between facilitating conditions and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the e-NAPSA system based on the facilitating conditions might yield better results for them.

Behavioral intentions and the usage of e-NAPSA services (Table 9)

The results from SPSS output indicate that the relationship between Behavioral Intentions and the use of e-NAPSA services by the marketeers. The correlation coefficient of −0.181 indicates a negative relationship between Behavioral Intentions and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the system based on the behavior of the marketeers towards the usage e-NAPSA services might not yield better results for them (Table 10).

Table 9. Behavioral intentions correlations.

		The Usage of NAPSA E-services by Marketeers	Behavioral Intention
The Usage of NAPSA E-services by Marketeers	Pearson Correlation	1	−0.181**
	Sig. (2-tailed)		0.002
	N	301	301
Behavioral Intention	Pearson Correlation	−0.181**	1
	Sig. (2-tailed)	0.002	
	N	301	301

**Correlation is significant at the 0.01 level (2-tailed).

Table 10. Summary of the results.

Hypothesis	*p*-values	Statistical Values	Results
There is no relationship between performance expectancy and the use of e-NAPSA services through the NAPSA online portal	0.061	−0.329	Accepted
There is no relationship between effort expectancy adoption and the use of e-NAPSA services through the NAPSA online portal	0.072	−0.096	Accepted
There is no relationship between social influence adoption and the use of e-NAPSA services through the NAPSA online portal	0.001	0.042	Reject
There is no relationship between facilitating conditions and the use of e-NAPSA services through the NAPSA online portal	0.002	0.042	Reject
There is no relationship between behavioral intention and the use of e-NAPSA services through the NAPSA online portal	0.052	−0.181	Accepted

5. Conclusion

E-Governance has enabled governments all over the world to provide services that are as competitive, if not better, then those provided by corporate businesses in certain circumstances. The trend that electronic or rather ICT has been at the center of enabling businesses, including governments, that, despite being non-profit institutions, have seen fit to tap into innovative digital solutions to provide secure, efficient, and user-friendly services to their clientele. The adoption of such technology as the Government Service Bus has even further enhanced service delivery by allowing customers to access various services like form applications, payments online, and many more, all these without human interaction and intervention.

This can be seen from services like road tax, motor vehicle licensing, etc. from RTSA, Immigration, and the Zambia Police that provide various services that can be conducted online through the Government Service Bus platform. Day to-day administrative operations have also been incorporated, and resource personnel have heightened their productivity and efficiency in doing their jobs using technology. NAPSA, as a government agency that provides services to the public and corporate world, has benefited from the e-governance initiative in Zambia. However, the general low uptake of e-Government services hasn't spared NAPSA as an institute and therefore it became prudent to undertake a study to find out factors affecting the adoption and use of e-NAPSA services through the GSB based on the UTAUT Model.

The results for descriptive statistics show the mean score rating for the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions and behavioral intentions. The rating ranges from 1 to 5 with the highest number indicating excellent results. The highest mean is 4.1462 for performance expectancy and the lowest being the usage of e-services for NAPSA by marketeers. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers.

6. Recommendations

The e-NAPSA services being offered on through the ECIS for the informal sector should be user friendly and simple in terms of content and language option being used to avoid ambiguity. It would help the organization and the sector to have a separate online system set up strictly for this sector as this ensures system availability and speed, service quality and consistency as opposed to merging with the formal sector system to avoid system overload during peak times. The process design of the mobile app should have fewer steps and language options in processing the transactions to enable the marketeers ease of use.

There is need for NAPSA to seriously sensitize the benefits for the informal sector who are not captured automatically to make contributions from their

earnings. This will help effective participation in their security contributions. A lot of marketeers do not understand social security contributions and their future benefits in the long-term.

NAPSA should consider introducing incentives in form small loan empowerment at lower interest rates to consistent contributors (marketeers) to encourage others to come on board. This way it will be able to capture a lot of contributors.

7. Future Works

The future of every citizen, in formal and informal sectors, in accessing services is online, thus there is need to research more in how to suit organization systems to the masses to increase inclusivity of working sectors.

Acknowledgements

The Author acknowledges the willing support of the study participants from the informal sector at Kabuma Market in Lusaka Zambia and Mr. Michael Sakala who assisted with data analysis. The Author would also like to acknowledge the support of faculty the Graduate School of Business, her supervisor Dr. Jackson Phiri.

Conflicts of Interest

The author declares no conflict of interest.

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