

Assessing Impact of Electronic Payment Technology on Customers' Satisfaction Level at Shell Relays Filling Station in Mauritius

Shadrack Khaoya Wakhura*

ABSTRACT

The electronic payment system (EPS) is one of the most-advanced systems for enabling the execution of transactions. Effective use of the e-payment system relies on customer satisfaction level. In view of this, this study aimed to investigate the impact of electronic payment technology on customers' satisfaction level at Shell Relays Filling Station in Mauritius. The study revealed various impacts of e-payment, such impacts as the usability, time factor, affordability, user-friendliness and protection. It has also been discovered that the level of education has a greater effect on consumer satisfaction. To achieve the stated objective, the study followed a quantitative approach. The population was selected among e-payment users at Shell Relays Filling Station through a random sampling technique. Primary data were gathered from 118 respondents by using online questionnaires. The results are consequently analysed in tables, bar charts, and pie charts derived by the computer software Statistical Package for Social Science (SPSS) and Microsoft Excel. Based on the findings of this report and its conclusion, practicable recommendations were suggested to decision-makers to help them improve the e-payment system in order to fulfill consumer needs and thereby satisfying them.

Keywords: E-Payment, Electronic Payment System, Information and Communication Technology, Statistical Package for Social Science

INTRODUCTION

A complex phenomenon that is shaped by a variety of factors is customer satisfaction. Over the decades, different researchers have conducted a variety of studies on the factors impacting the customer satisfaction. The advancement of electronic payment technology presents a major challenge for enterprise companies. It enables a strategic advantage over rivals, providing both consumers and other business partners with reliable, secure and realistic payment methods. Electronic payment systems (EPS) may also be considered as an aid to increase customer satisfaction.

The main sections of the paper will discuss the various definitions of e-payment, its types, its brief historical development and the impact of electronic payment technology on customers' satisfaction. The last sections of this paper provide an analysis of various effects conducted on e-payment among e-payment users at Shell Relays

Filling Station and scope with a view to recommend areas that need further research.

BACKGROUND OF THE STUDY

The business climate in today's world is highly complex. The technical advances, awareness-raising and demand for payment services have brought rapid changes. Among other factors, e-payment systems have made it easier to carry out economic transactions and have safer and quicker access to financing than cash systems (Oginni, 2013). A safe and efficient payment system without 'cash and transport syndrome' was created by technological growth. The electronic payment system (EPS) explicitly provides a medium to be exchanged without the visitation of banks or the physical presence of contracting parties through economic exchanges.

The 21st century is the era of globalisation and is influenced by the technological revolution. The internet

* *Honoris Educational Network, Mauritius. Email: shaddy_de@yahoo.com*

has a huge effect on all facets of the industry. Electronics is no longer a market option in the 21st century; it is a must (George, 2011). In order to substitute or minimize paper-based payments, electronic retail payments are continually being produced. In recent years, many new payment services have arisen, most of which are focused on technical developments such as cards, telephones and the Internet (Abor, 2004, cited in Edward & Abraham, 2012).

The massive growth of the internet is transforming the way businesses communicate with customers, as most businesses are now using the Internet. It is this advent of e-commerce as a medium of payment that has urged companies to take a leap from conventional paper payment services and to provide a solid service across the internet, which has come to be known as electronic payment. This has given companies the ability to encourage customers to continue to do business with them.

E-payment was developed to help individual clients and businesses overcome or minimize any of the challenges in the resolution and payment process (Federal Reserve Bank of New York, 1996) cited in Drehmann, Goodhart and Krueger (2014).

The global payment mechanism then became compatible with the new trend of non-cash transactions between individuals, corporations and governments with the advent of e-payment systems (Odi & Richard, 2013). E-payment and mobile (m-payment) global annual non-cash purchases have been up over the years, except in 2012 when their annual growth rate decelerates from 8.6% in 2011 down to 7.7% in 2012 (World Payment Report, 2014).

STATEMENT OF THE PROBLEM

Customers require reliable, rapid and realistic services. Today many consumers want organisations that provide services that meet and serve their needs. The introduction of electronic payment technology that is reliable and efficient services are required to play a significant role at Shell Relay Filling station.

The complexity of global financial markets is rising as new products and technology offer alternatives in the

conduct of financial affairs by customers. At the same time, as a means of knowledge exchange, customers are constantly interconnected across the internet. Electronic payments are one of the innovations that have been greatly impacted in the world of industry. Electronic payments have fundamentally improved the way companies perform their activities and purchases by making transfers of products and services a simple and scalable process. However, considering the potential benefits of electronic payments, especially to financial institutions and other business sectors, a number of companies have lagged in implementing this technology. The lack of available funding, management and human resources, which could have gained more competitive advantages and draw more consumers, sadly still defer most companies to adopt and equip themselves with current and sophisticated electronic devices. One is therefore inclined to ask what would cause the existing payment methods not to be adopted.

AIM OF THE STUDY

The aim of the study is to assess the impact of electronic payment technology on customers' satisfaction level at Shell Relays Filling Station, Mauritius.

RESEARCH OBJECTIVES

The study examined the following objectives:

- To assess the impact of EPS on customer satisfaction level at Shell Relay Filling station; and
- To make recommendations for improving the customer satisfaction level of users of the electronic payment technology at Shell Relay Filling station.

RESEARCH QUESTIONS

In order to direct the analysis, the following questions were established:

- What is the impact of the EPS on customer satisfaction level at Shell Relay Filling station; and
- What recommendations can be made to management for improving the customer satisfaction level of users of the electronic payment technology at Shell Relay Filling station?

SIGNIFICANCE OF THE STUDY

The study is expected to benefit the different stakeholders. It will provide an opportunity for the customer to provide feedback on their preferences on e-payment. The study aims to provide business organisations with practical knowledge of customer perceptions of electronic payment services quality which will enable create a troubleshooting contingent to create solutions for unforeseeable circumstances that would arise while addressing the aspect of electronic payment that may enhance their efficiency and effectiveness in meeting customer needs. The study will also add to the existing academic body of knowledge.

LITERATURE REVIEW

Customer satisfaction is a positive result from the situation where a customer's products and services fulfil his/her needs to satisfy him/her with the products or services offered by the e-stores. In other words, it's a response from the customer (Bearden & Teel, 1983) cited in Katherine and Peter (2016).

EPS

Many researchers have been carried out on EPS and in view of that many scholars are having a differing definition to it. A payment system consists of a collection of transfer systems which ensure the movement of money through the instruments, banking procedures and usually interbank funds (Gogoski, 2012; Slade, Williams & Dwivedi, 2013).

In another perspective, e-payment refers to electronically transfer funds from the payer to the payee via an EPS, which allows clients to access their financial transactions remotely and control them through an electronic network (Antwi, Hamza & Bavoh, 2015).

Furthermore, EPS is defined as any monetary exchange that is being made as a result of electronic commerce transactions (Kaur & Pathak, 2015). Adeoti and Osotirnehin (2012) define EPS as all electronic means of payments for goods and services that are being procured online. EPS is characterised to include any kind of fund transfer via the use of the internet or any kind of e-payment

transfer from a payer through an e-payment channel that enables business partners to link and manage their bank accounts over an electronic network (Teoh, Chong, Lin & Chua, 2013; Peter & Babatunde, 2012).

An electronic payment may generally be described as a forum for paying for goods/services bought online through the internet (Roy & Sinha, 2014). Electronic payments can be described as an electronic transmission of the amount of a payment by an EPS from the payer to the receiver. The e-payment provider has a web-based user interface that helps consumers to view and monitor their bank accounts and transactions remotely (Hidayanto, Hidayat, Sandhyaduhita & Handayani, 2015).

Therefore, "Electronic payment" refers to the methods of payment of bills and other electronic means such as wallet, phone, internet, and electronic fund transfers as practical, safe and stable. It is the money value is electronically or digitally distributed to two individuals in the form of reimbursement or consideration for the receipt of goods or services.

Types of EPS

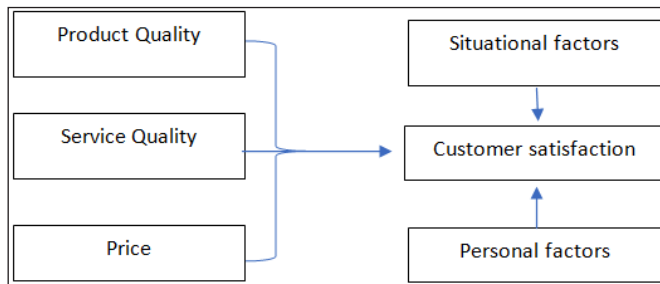
There are several types of electronic payment methods Visa card, master-card, smart card, debit card, credit card, e-check, and e-wallet, mobile payment and money transfer, etc., are the options for e-payments. Each of these systems has its own advantages and disadvantages, which could be evaluated based on their technological, economic, social and institutional aspects (Kabir, Saidin & Ahmi, 2017).

Factors Affecting Customer Satisfaction

Technological changes are on the increase across the globe and EPS adoption studies are being conducted frequently to either assess the success of the system, extent of satisfaction among its users or to understand the factors that lead to the usage. Consumers are looking for relationships that are immediate, simple and secure when making purchases, they increasingly prefer online and mobile transactions using bank payment cards.

Some of the common reasons for customer satisfaction were described as perceived value, picture, price, quality,

reliability and comfort. A study of common models formulated over the years will contribute to a greater understanding of the phenomena of customer satisfaction.



Source: Duy and Hoang (2017).

Fig. 1: Customer Satisfaction Model

The model above reveals that the customer's happiness causes the entire purpose of the buyback to avoid the same. This model proposes numerous customer satisfaction metrics that are important to our customer satisfaction, in every source and its efficiency and quality of product and service at a given price (Gyambrah, 2016). Moreover, this model includes situational considerations as to whether the buying of the commodity is triggered in relation to contact between retailers and clients.

Competitiveness: Business competitiveness refers to the fitness level of a service organisation; high competitiveness results in improving innovativeness in products and services leading to strategic advantages in the marketplace and greater customer satisfaction. Companies should promote and integrate customer learning as a pillar of strategic strategies (Parasuraman, Zeithaml & Berry, 1997).

Consistency in Service: Consistency determines the optimal level of service for customers. Service continuity is always an expectation of all customers; they want tranquillity and no disagreeable surprises. Consistency in service means that the delivery or performance of all service attributes is smooth, consistent and equal regardless of the time, place, opportunity or service provider (Domingo, 2014).

EPS has various features, such as safety, validity, pleasure viewed and fast perceived, simplicity of payment, speed and flexibility, reliability, expense, confidentiality, power, and quality control (Tella, 2012; Tella & Olasina, 2014).

Other researchers have reported on the reasons which are expected to enhance the adoption of e-payment systems. Some of the determinants which are believed to affect the acceptance of e-payment include: the presumed advantages of e-payment (Teoh et al., 2013), convenience of use (Chin & Ahmad, 2015; Teoh et al., 2013; Lin & Nguyen, 2011), desired consistency (Davis, 1989), perceived device protection (Chaudhry, Farash, Naqvi & Sher, 2016; Tella & Abdulmumin 2015; Antoniou & Batten, 2011), consumer confidence in e-payment systems (Teoh et al., 2013; Travica, Josanov, Kajan, Vidas-Bubanja & Vuksanovic, 2007); and to smaller extent perceptions of self-efficacy (Teoh et al., 2013).

Impact of Electronic Payment on the Customer Satisfaction Level

E-payment is a mechanism that offers payment tools for online services or products. The use of the e-payment system has many benefits for payers, payers, e-commerce, banks, organisations and governments. These advantages can lead to diverse electronic payment systems worldwide (Qatawneh, Aldhmour & Alfugara, 2015). An effective and secure e-payment system makes for quicker transfers, improved monitoring, straightforward payments, decreased time usage, cost savings, and increased trust between sellers and buyers. Financial transfers, assimilated consumers and quality e-payment technology tend to form their own views and aspirations of the advancement and implementation of technology in the e-payment system.

Cashless payments deter cheating and other cash-related crimes, unlike conventional cash transactions (Armeiy, Lipow & Webb, 2014). Safety includes the risk of fraud and the extent of protection against fraud (Hayashi, 2014). Mobile payments permit secure transactions by adequate technologies (Liébana-Cabanillas, Sánchez-Fernández & Muñoz-Leiva, 2014), Such as encryption, and reduce the likelihood of, for example, theft (Wenner, Obeysekare & Mehta, 2017). Customers are mostly cautious about sharing their information on this system, since the information is likely to be misused (Loonam & O'loughlin, 2008). With regard to sellers, simpler transactions through different payment methods increase sales, increase the quality of the operation and minimise operational costs (Teoh et al., 2016).

Easy to Use and User-Friendliness: Ease of use is a significant determinant of e-payment for the consumer. In a study conducted by Karjaluoto, Karvonen, Kesti and Timo (2002) cited in Odia and Adekunle (2020), the ease of use of new goods or services was identified as one of the three key features for consumer acceptance. A significant determinant for ease of use is the user-friendliness of domain names as well as the navigation options accessible on websites.

Convenience refers, for example, to versatility, speed, portability and usability (Hayashi, 2012). Contactless payments ensure high versatility for users in terms of time and place (Mallat, 2007; Zhou, 2013), individuals and companies use e-payment services as a reliable and easy way to make online purchases while also serving as a portal to technical innovation in the area of the global economy (Slozko & Pello, 2015).

The e-payment system has many desirable features, including stability, reliability, usability, confidentiality, desirability, privacy, performance and convenience (Kim et al., 2010). E-payments have changed a number of consumer opportunities and services for banks and other financial institutions (Kabir et al., 2015). According to Alma'aitah and Shatat (2011) cited in Xu (2013), e-payment requires a collection of protection to ensure the consumer data is secure and secured and that the financial transaction is validated.

Cashless payments are often rated hygienic to delivery companies (Paul & Friday, 2012). This has been witnessed during the global pandemic of COVID-19, where people have been advised to use the e-payment methods to minimise and avoid the spread of the virus.

Time Factor: Anil (2016) identified time as one of the key variables for customers in the consistency of e-payment services. Saving time is an important aspect that impacts clients who choose to use e-banking.

Today, the use of electronic payment has continued to increase due to its convenience, safety and swift mode of payment. Hasan, Renzis and Schmiede (2012) examined the critical relationship between electronic retail payments and economic overall growth in 27 European countries from 1995 to 2009. They noticed that migration to successful e-commerce payments would boost

economic development, demand, and commerce as a whole. However, the economy has relatively low impacts on credit and debit card payments, fund transfers and check payments. Oyewole, El-Maude, Abba and Onuh (2013) state that the introduction of electronic payments would have a positive impact on Nigeria's economic development and trade.

Electronic service (e-service) is becoming increasingly significant not only in identifying the success or failure of electronic commerce (e-commerce) function, but also in providing customers with a convenient and interactive service (Zhilin & Fang, 2004) cited in Jun and Palacios, (2016). In addition, customers now demand new levels of convenience and flexibility in addition to powerful and easy services that traditional means cannot offer. As such, companies shifted their focus to e-service in their complete transaction process in pre- and post-transaction stages (Cristobal, Flavian & Guinaliú, 2007).

RESEARCH METHODOLOGY

The explanatory design was used in this research. The design also helps to define the required methods of data collection and the choice of subject. The study preferred a quantitative analysis method because it is a systematic goal, the systemic procedure in which to collect knowledge through the use of analytical data (Burns & Grove, 2005). One of the features of quantitative analysis that made it relevant for the research was that the researcher used a systematic interview method (open-ended questionnaire) to gather data on each sample.

The research followed a descriptive research design. It was included as it had reasons that the investigator had no influence over the variables and just recorded what was going on. A focus group is a small group of carefully chosen people who participate to open conversations for research purposes. The researcher deliberately chooses sample subjects to reflect the larger population target (Nyumba et al., 2018).

The positivist research strategy was used due to the high number of respondents being sampled. The researcher used a structure survey, that is online questionnaires were used because they are economical, anonymous, convenient and standardised.

TARGET POPULATION

The population in this study involved all Shell Relay Filling station customers and an average of 1000 customers visiting Shell Relay Filling station with a sample size of 118 participants.

The questionnaires developed were based on a five-item Likert scale. Responses were given to each statement using a five-point Likert-type scale, for which 1 = “strongly agree” to 5 = “strongly disagree.” The responses were summed up to produce a score for the measures. This was to show the degree of consensus between the participants and the attribute under review. Questionnaires are easy to administer, and reasonably simple to compile. Knowledge and a reduced cost approach (Kawamala, 2013).

DATA ANALYSIS METHODS

Data analysis means the compilation, modelling and transformation of data in order to obtain relevant information, draw inferences and make decisions (Cooper & Schindler, 2014). This means bringing the data into some sort of structured form (Jackson, 2009). After data were gathered, all the questions in the questionnaires were filled and verified for their completeness.

Data were generally analysed using the Statistical Package for Social Science (SPSS) software. This analysis used descriptive statistics and supplementary inferential statistics to evaluate research data. Descriptive statistics provided the investigator an ability to analyse vast volumes of data using measures that can be interpreted by the analyst.

RESULTS, DISCUSSION AND INTERPRETATION OF FINDINGS

At Shell Relay Filling station, out of the 120 questionnaires administered, 118 were received duly filled. The response rate is, therefore, 98.3%.

Abraham and Barker (2014) state that acceptable reliability for each scale is alpha value 0.70 or above, and alpha values lower than 0.70 are not desirable. The results of the reliability test are given in the table below.

Table 1: Reliability Statistics

<i>Cronbach's α</i>	<i>No. of Items</i>
0.963	17

The Cronbach α coefficient testing was conducted using the SPSS program. The finding demonstrates that the results were strongly correlated and consistent with the study objectives, with a value of 0.963.

The findings of the analysis followed by the correlation with the hypotheses described in the literature review are mentioned in this section. For the understanding and comparison of the survey data, bar charts and pie charts are used. In addition, using SPSS, the association of Pearson at 95% confidence level was used to measure and report on the strength of the interaction between two variables in order to provide a profound interpretation of the findings.

Table 2: Demographical Analysis

<i>Measures</i>	<i>Items</i>	<i>Percentage</i>
Age	18–25 years	23.7%
	26–35 years	31.4%
	36–45 years	30.5%
	46–55 years	8.5%
	Above 55 years	5.9%
Gender	Male	57.6%
	Female	42.7%
Educational level	Primary level	2.5%
	Vocational level	2.5%
	Secondary level	7.6%
	Tertiary level	36.4
	Professional level	50.8

The observations demonstrate that the maximum age ranged from 26 to 45 years, which is the age of younger respondents who embrace technology fast.

The findings follow the observations made by Venkatesh and Morris (2000), which men may be more task-oriented than women. In this context, task-orientation may be defined as the accomplishment of a task that requires the use of technology.

The highest level was found to be those with Professional level followed by those with tertiary level and the lowest were those with primary and vocational level.

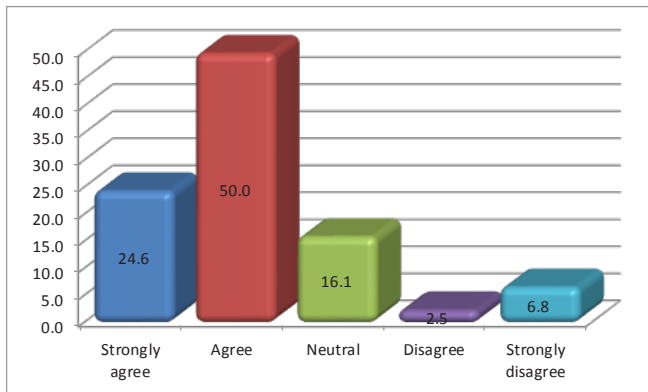


Fig. 2: Electronic Payment is My Preferred Mode of Payment

Fig. 2 illustrates results obtained on whether electronic payments are the preferred mode of payment by the customers at the Shell Relay filling station. It can be observed that a high majority of 50.0% agreed that electronic payment is their preferred mode of payment. 24.6% strongly agreed to the statement while 16.1% were neutral and 2.5% disagreed. However, 6.8% of respondents strongly disagreed that they do not prefer electronic payment as their mode of payment. The results of this study showed that customer satisfaction is very high because the majority of the respondent prefers the e-payment method.

The results reflect the statement from the literature review by Qatawneh et al. (2015), who explained that an effective and secure e-payment system makes for quicker transfers, improved monitoring, straightforward payments, decreased time usage, cost savings, and increased trust between sellers and buyers (Rana et al., 2013). Extending this claim that people who use a technology are expected to be getting greater usage satisfaction if the system is easy to use when opposed to other system.

Table 3: Correlation with RI 11

		<i>Educational Level</i>
RI 11	Pearson correlation	-0.23*
	Sig. (2-tailed)	0.01

From the correlation table, the expectation on knowledge of customers to answer queries on the preferred mode of payment. It was observed that the correlation coefficient was negative 0.23 implying a significant relationship

between the statement (RI 11) and the demographic profile (0.01).

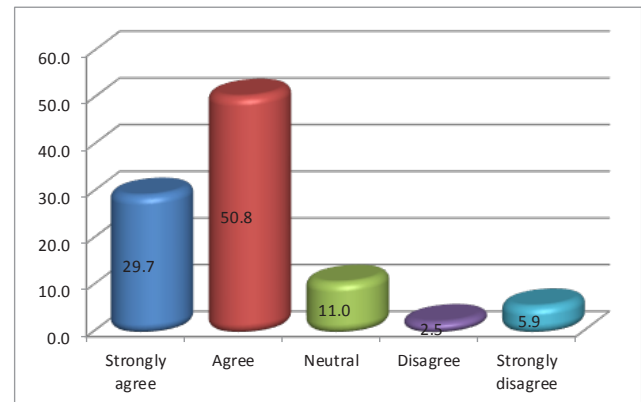


Fig. 3: I Enjoy using the Electronic Payment Method

Fig. 3 illustrates that 50.8% of the majority of the respondents agreed that they truly enjoy using the electronic payment method followed by 29.7% who strongly agreed. A total of 11% of the respondents were neutral. However, 2.5 and 5.9% of respondents disagreed and strongly disagreed to the statement, respectively.

The results reflect the statement of Kaur and Pathak (2015), who objectively analysed and compared the different forms of electronic payment systems; it is quite difficult to recommend which payment mechanism is better. Thus, results revealed that there are various factors which affect the use of e-payment systems. Amongst all the various modes of payments, customer point of view is the most relevant and additionally performance of e-payment systems often depends on consumer preferences, expense, easy in use, acceptance, safety and protection, authentication, non-refundability, simplicity, reputation, confidentiality and government policy.

Table 4: Correlation with RI 12

		<i>Educational Level</i>
RI 12	Pearson Correlation	-0.19*
	Sig. (2-tailed)	0.04

From the correlation table, the expectation on knowledge of customers to answer queries on that they truly enjoy using the electronic payment method. It was observed that the correlation coefficient was negative 0.19 implying a significant relationship between the statement (RI 12) and

the demographic profile (0.04). This implies that people with high education level tend to often use and do enjoy using electronic payment method because of the flexibility and simplicity compared to those with low level.

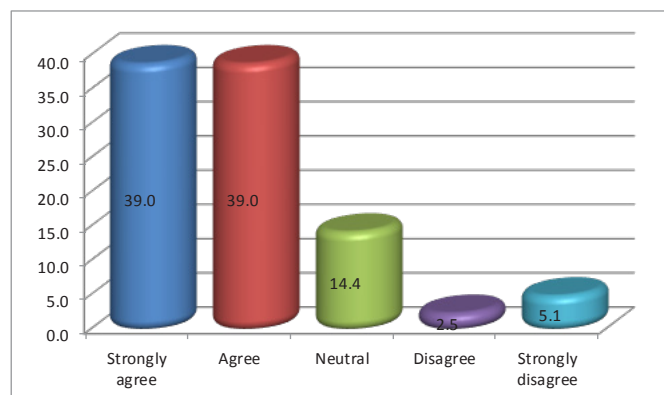


Fig. 4: E-Payment Allows Me to Access My Account Anytime

This study has indicated that 39.0% of respondents strongly agreed and agreed that e-payment allows them to access their accounts anytime. There were also 14.4% of respondents, who replied neutrally to this statement. However, 2.5% of respondents, disagreed while 5.1% of the respondent strongly disagreed that e-payment allows them to access their account anytime.

There is also a link for this particular statement with the view that speed and flexibility Speed of e-payment tools means for emerging technology to easily combine with existing processes and approaches to rapidly response to customers' demands and aspirations. E-payment method is effective because it conducts the best procedure at each point of the payment process. Reliability of the e-payment system helps in time-saving and can access account anytime (Abili & Jafarnejad 2014). Thus, speed and reliability mean facilitating the transaction with a low time cost.

Fig. 5 indicates results obtained on whether customers of Shell Relay Filling station can access their account anywhere with e-payments.

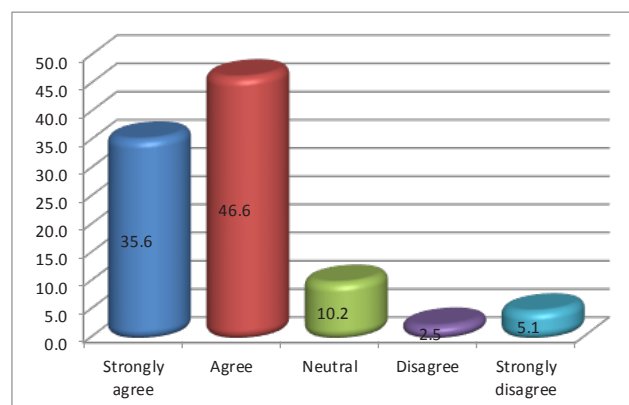


Fig. 5: Access My Account from Anywhere

From Fig. 5, the result shows that 35.6% of respondents believed that with e-payment they can access account from anywhere, 46.6% agreed to the statement, and 10.2% of the respondents were neutral. Respondents who disagreed and strongly disagreed were 2.5 and 5.1%, respectively.

There is also a link for this particular statement with the views of Hasan et al. (2012), who stated that the use of electronic payment has continued to increase due to its convenience, safety and swift mode of payment.

Table 5: Correlation with RI 14

		<i>Educational Level</i>
RI 14	Pearson correlation	-0.19*
	Sig. (two tailed)	0.04

As seen in Table 3, in the bid of getting the relationship that exists between to access the account from anywhere and education level, Pearson correlation analysis was successfully implemented, which shows relationship (RI 14). Those with high education level tend to have e-banking and can access account anytime. It can be concluded that electronic payment systems are limited only to users who have a strong ability to manage the internet.

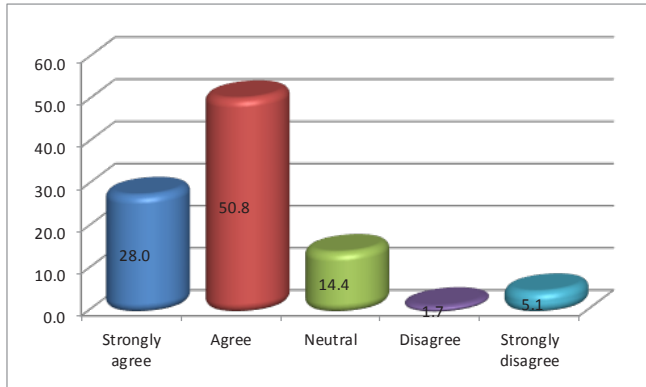


Fig. 6: Swift Mode of Payment

Fig. 6 presents findings gained for the customers' perception of whether they transact electronically because it's swift mode of payment. In this research, 28.0% of the customers strongly agreed, and 50.8% of the respondents agreed that they transact electronically because it is a swift mode of payment. However, 14.4% were neutral to the statement. There were also 1.7% disagree responses with 5.1% of respondents who strongly disagreed to the statement.

The results are aligned with Rana et al. (2013) stated that ease of use from TAM remains one of the critical factors which drives technology use. Extending this claim that people who use technology are expected to be getting greater usage satisfaction if the system is easy to use when opposed to other system.

Fig. 7 shows the answers obtained for the customers' perception of if electronic payment is safe from fraud.

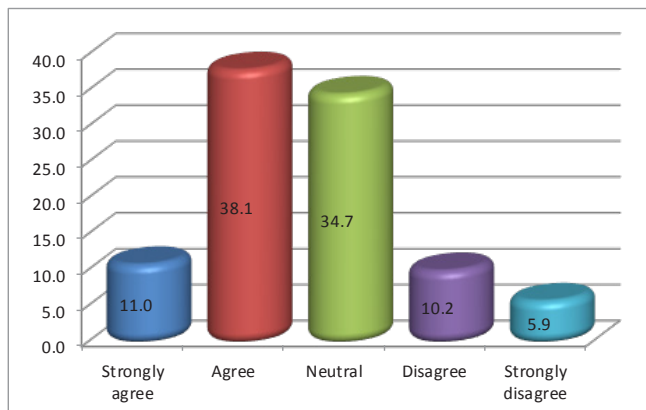


Fig. 7: Electronic Payment Safe from Fraud

From Fig. 7, the findings show that 11.1% of respondents strongly agreed that electronic payment is safe from fraud, 38.1% agreed with the statement, 34.7% were neutral, 10.2% disagreed and 5.9% strongly disagreed.

The high agreement rate is due to the fact that electronic payment is safer compared to cash payment. The degree of neutral answers maybe probably that, customers did not have a clear answer on what fraud means or they did not have a clear regulation system on fraud. The reason behind the disagreement rate could be that they don't use electronic payment and that they are afraid of the technological changes.

Hayashi (2012) highlighted that security concerns the potential for cheating and the extent of protection against fraudulent conduct. Overall, mobile payments make protected transactions possible thanks to relevant Technology (Liébana-Cabanillas et al., 2014), such as encryption, and reduce likelihood of, for instance, theft (Wenner et al., 2017). Still, the lack of perceived safety among customers is prevalent (Siau et al., 2004, Oliveira et al., 2016). Customers are mostly cautious about sharing their information on this system, since the information is likely to be misused (Loonam & O'loughlin, 2008).

Consumers trust any good or service only if they have any experience with it and this experience gives them the courage to use that particular service or product.

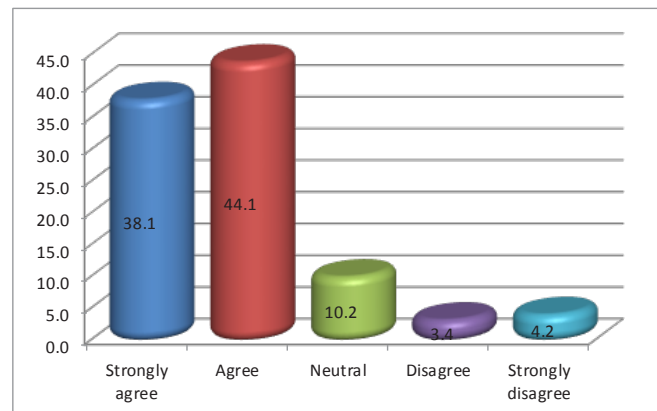


Fig. 8: EPS Allows Me to Save Time

Fig. 8 depicts that 38.1% of respondents strongly agreed, 44.1% agreed that EPS allows me to save time, 10.2% shared a neutral opinion and those who disagreed and strongly disagreed were 3.4 and 4.2%, respectively.

This score illustrated that respondents agreed with the statement that EPS saves time.

The results are aligned with the statement that contactless payments offer customers with high time- and location-wise versatility (Mallat, 2007; Zhou, 2013), eliminate the need to handle additional physical tokens, such as cash and minimise payment by 15 to 30 seconds, on average (Hayashi, 2012).

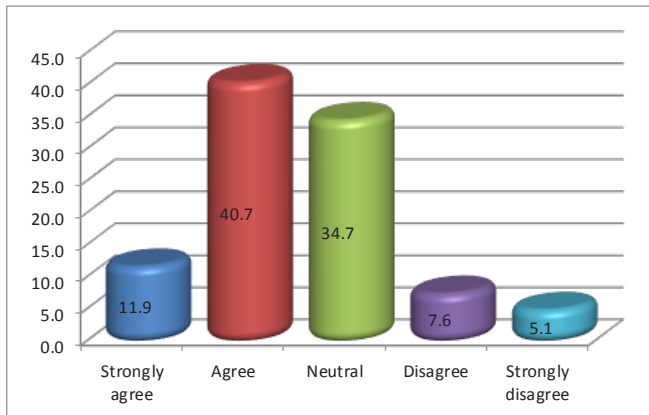


Fig. 9: Electronic Payment is Error-Free

Fig. 9 shows that 11.9 and 40.7% of respondents strongly agreed and agreed to the statement, respectively, while 3.3% were neutral, those that disagreed were 7.6 and 5.1% strongly disagreed that electronic payment is error-free.

The high percentage of agreed responses from the respondents is in line with Zhilin and Fang (2004) cited in Jun and Palacios (2016), who explained that e-service is becoming increasingly significant not only in identifying the success or failure of electronic commerce (e-commerce) function, but also in providing customers with a convenient and interactive service. In addition, customers now demand new levels of convenience and flexibility in addition to powerful and easy services that traditional means cannot offer.

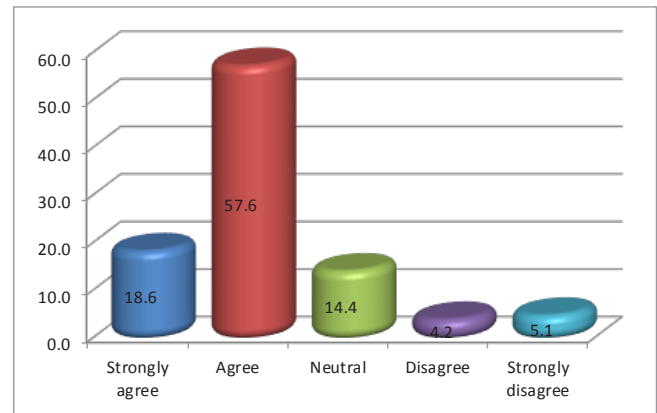


Fig. 10: I Consider the E-Payment System as User-Friendly

Fig. 10 depicts findings on user-friendly of the e-payment system, where 18.6% of the respondents agreed to the statement, 57.6% agreed that e-payment system is user-friendly, 14.4% were neutral, 4.2% disagreed and 5.1% strongly disagreed. This result revealed that e-payment users are satisfied using it because it is user-friendly

The results reflect the statement of Hasan et al. (2012) that today, the use of electronic payment has kept growing due to its comfort, security and rapid payment method. In a study conducted by Karjaluoto et al. (2002) cited in Amin, (2016), the ease of use of new goods or services was identified as one of the three key features for consumer acceptance. A significant determinant for ease of use is the user-friendliness of domain names as well as the navigation options accessible on websites.

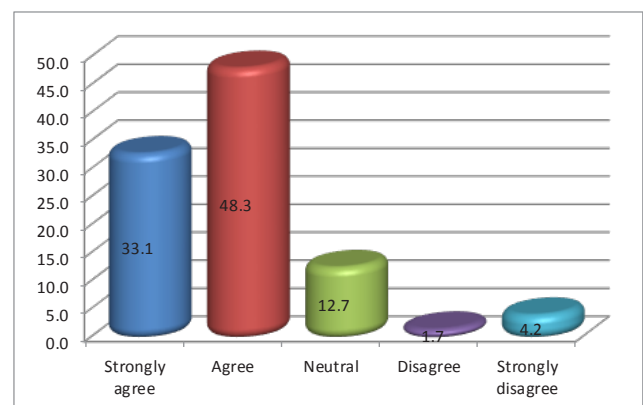


Fig. 11: E-Payments are Hygienic

Fig. 11 illustrates the results obtained from respondents who were asked if electronic payment is hygienic. The figure reveals that 33.1% of the respondents strongly agreed that electronic payment is hygienic. A high percentage of 48.3% of respondents agreed with the statement while 12.7% were neutral. Those that disagreed were 1.7 and 4.2% strongly disagreed. It was also revealed that a large number of customers using e-payment system were satisfied with the e-payment services and products offered because it was hygienic.

Table 6: Correlation with RI 20

		<i>Educational Level</i>
RI 20	Pearson Correlation	-0.19*
	Sig. (2-tailed)	0.04

From the correlation table, the expectation on knowledge of customers to answer queries that electronic payment being hygienic. It was observed that the correlation coefficient was negative 0.23 implying a significant relationship between the statement (RI 20) and the demographic profile (0.01).

The survey findings are introduced, debated and interpreted with respect to recommendations ranging from 1 to 10. Detractors are the respondents who scored 1 to 6, 7 and 8 are passive and 9 and 10 are promoters. For each item being evaluated, for the NPS ranking, which is determined as $NPS = Promoters - Detractors$, more analysis was performed.

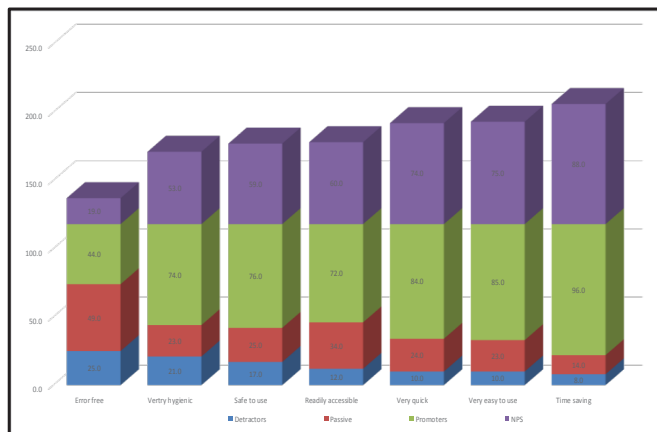


Fig. 12: Recommend Others to Use E-Payment When Paying

Many participants selected 49.0% were passive, promoters were 44.0% when asked to recommend if e-payment is error-free, but only 19.0% awarded a 10 to be NPS. Conversely, 19.0 of the participants answered the NPS question with a 10. Detractors were 25.0%.

When asked to recommend on e-payment being hygienic, 21.0% were detractors, 23.0% were passive and 74.0% were promoters. The NPS was 59.0.

As shown the Fig. 12 17.0% of the customers is classified as detractors, 25.0% are passives and 76.0% are promoters when asked readily accessible of e-payments. NPS are 60.0. When asked to recommend if e-payment is very quick 10.0% were rated as detractors, 24.0% rated as passive, and those that were rated as promoters were 84.0%, making NPS to be 74.0.

It is noted that there are 10.0% detractors, 23.0% passive, 85.0% promoters that e-payment is easy to use. 75.0 were rated as NPS.

When asked to recommend on time-saving, those that were rated as detractors were rated as 8.0% the passive rate was 14.0 and 96.0% were rated to be promoters. The NPS rate was 88.0.

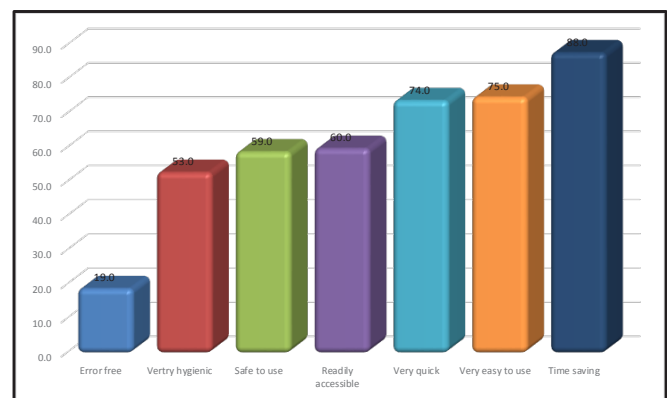


Fig. 13: NPS

As shown in Fig. 13, Average Net Promoter Score it is noted that there are 19 error-free, very hygienic the NPS was rated at 53.0, NPS for safe to use was rated at 59.0, the Net Promoters Score for readily accessible 60.0. 74.0 Net Promoters Score was for very quick to use. The NPS seemed to be most strongly associated with very easy to use rated at 75.0 and the highest score is associated with time-saving at 98.0.

CONCLUSIONS FROM THE STUDY

The primary and secondary results are based on the investigation of the impact of electronic payment technology on customers' satisfaction levels at Shell Relays Filling Station. From the survey results, it was concluded that the majority of the customers at Shell Relay filling station were satisfied with the electronic system. However, there was a small percentage that did not agree hence implied that there was little customer unsatisfactory which could result in losing loyal customers. This could be possible because they prefer paper payment to electronic payment.

The first objective was to evaluate the impact of the EPS on customer satisfaction level. According to prior hypotheses, electronic payment has a positive impact on customers' satisfaction level. The primary data revealed that customers were satisfied with using EPS which had a positive impact. There's also a correlation between the statements and the participants' demographic information.

The other objective was to propose recommendations to Shell Relay filling station management to improve customer satisfaction level findings assessed on Net Promoter Score scale. Average Net Promoter Score, it is noted that there are 19 error-free, very hygienic the NPS was rated at 53.0, NPS for safe to use was rated at 59.0, the Net Promoters Score for readily accessible 60.0. 74.0 Net Promoters Score was for very quick to use. The NPS seemed to be most strongly associated with very easy to use rated at 75.0 and the highest score is associated with time-saving at 98.0.

RECOMMENDATIONS

In the light of the results of the present report, this section addresses relevant realistic recommendations for the management of Shell Relay filling station with a view to improving its standard of service in order to build customer satisfaction level and retain current customers.

First of all, consumers seek payment systems that fulfil their requirements of safety, efficiency, speed and ease. Building visibility of online payments early on in the partnership places the organisation as the primary source of payment for its clients. For electronic payment to be the preferred mode of payment; there is a need for the

Shell Relay Filling to heavily invest in technology as this will highly encourage the use of electronic payment.

According to the findings, not all of the respondents' agreed that truly enjoy using the electronic payment method; to attract new customers, managers at Shell Relay should create innovative and modern electronic payment systems like mobile payment and provide free internet access to the customers. The organisation should ensure customer training campaigns on the value and ease of use of electronic payment systems.

Considerable thought needs to be paid to ensure that internet services are easy to access and considered to be of good quality so that consumers can build confidence in the system. Management needs to concentrate its attention on introducing new e-banking business delivery networks such as mobile banking and internet banking to allow customers access account anytime.

Another recommendation for e-payment users is to enable the security of payments. Many consumers are indeed hesitant to use online transactions, so if businesses could educate their customers on the importance of electronic payments in terms of safety, they would feel more comfortable with the innovative payment method. Consider putting up signs in your store or sending out emails to consumers about how digital transfers are much safer than conventional payments.

In connection to this global trend, the Corona Virus epidemic has ensured that electronic payments method has gotten more recognition because they keep businesses running and help purchasers avoid interaction with the virus. Managers at Shell Relay should encourage contactless electronic payments at the filling station, which use image recognition, QR codes, or NFC codes, help to deter the virus from spreading through cash transactions and physical contact, making this a secure payment system for customers and companies alike, and showing its huge potential as a payment option in the immediate future.

A core aspect of a company's overall online communications approach is educating and inspiring front-line employees. Recommendations are made to managers to use employees who are knowledgeable about digital technologies and who use them often because they are most likely to promote them. Online services may

be unfamiliar to consumers, or they may not be used to their full potential. Some will be curious but scared by the possibility of getting started. Each of these scenarios provides an opportunity for a team member to intervene and advise or assist the client.

Another impact was that customers consider the e-payment system as user-friendly. The findings revealed that some of the respondents were not in agreement; the organisation supplementing traditional marketing strategies with incentive-based campaigns will result in significant changes in payments, enrolments, first-time payers, and reactivations.

Among the results, simplicity was identified as the most relevant factors, with a strong positive impact on the payment method. It is likely that this bond is forged by the ease of which we can make payments and transactions using a system that we bring with us at all times. Managers are recommended to use event-triggered online advertising as part of ongoing consumer interactions would increase awareness and encourage the use of electronic payments.

Management at Shell Relay can eliminate theft by being vigilant about the passwords of clients (for example, modifying default passwords, avoiding exchanging passwords, giving server access to just a few people), ensuring firewalls are in operation, and maintaining antivirus defences up to date.

REFERENCES

- Abraham, J., & Barker, K. (2014). Exploring gender difference in motivation, engagement and enrolment behaviour of senior secondary physics students in New South Wales. *Research in Science Education*, 45(1), 59-73.
- Abor, J. (2004). Technological innovation and banking in Ghana, an evaluation of customers' perspective. *American Academy of Financial Management*, 1(3), 338-356.
- Adeoti, O., & Osotirnehin, K. (2012). Adoption of point of sale terminals in Nigeria: Assessment of customers level of satisfaction. *Research Journal Finance Accounting*, 3, 1-6.
- AlL-ma'aitah, M., & Shatat, A. (2011). Empirical study in the security of electronic payment. *International Journal of Computer Science Issues*, 8(4), 45-60.
- Anil, B. (2016). Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and branding.
- Antwi, S. K., Hamza, K., & Bavoh, S. W. (2015). Examining the effectiveness of electronic payment system in Ghana: The case of e-ZWICH in the tamale metropolis. *Research Journal of Finance and Accounting Online*, 6(2), 2222-2847.
- Antoniou, G., & Batten, L. (2011). E-commerce: Protecting purchaser privacy to enforce trust. *Electronic Commerce Research*, 11(4), 421-456.
- Armey, L. E., Lipow J., & Webb, N. J. (2014). The impact of electronic financial payments on crime. *Inf Econ Policy*, 29, 46-57.
- Bearden, W. O., & Teel, J. E. (1983). Selected determinants of consumer satisfaction and complaint reports. *Journal of Marketing Research*, (20), 21-28.
- Burns, N., & Grove, S. K. (2005). *The practice of nursing research: Conduct, critique, and utilization* (5th ed.). St. Louis: Elsevier Saunders.
- Chaudhry, S. A., Farash, M. S., Naqvi, H., & Sher, M. (2016). A secure and efficient authenticated encryption for electronic payment systems using elliptic curve cryptography. *Electronic Commerce Research*, 16(1), 113-139.
- Chin, L. P., & Ahmad, Z. A. (2015). Consumers' Intention to use a single platform e-payment system: A study among Malaysian internet and mobile banking users. *Journal of Internet Banking and Commerce*, 20(1), 1-13.
- Cristobal, E., Flavian, C., & Guinaliú, M. (2007). Perceived E-Service Quality (PESQ): Measurement validation and effects on consumer satisfaction and web site loyalty. *Journal of Service Theory and Practice*, 17(3).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Duy, P. N. N., & Hoang, T. M. (2017). Factors affecting customer satisfaction and customer loyalty the case of Binh Duong ceramic product. In *Proceedings of NIDA International Business Conference 2017-Innovation Management: Bridging Theory and Practice*, Bangkok, Thailand, 380.
- Domingo, R. T. (2014). Consistency in service quality.
- Drehmann, M., Goodhart C., & Krueger, M. (2014). The challenges facing currency usage. *Economic Policy*.

- Federal Reserve Board. (2001). *E-payments in industrial financing*. Chicago: Federal Reserve Board.
- George, S. O. (2011). The prospects and barriers of e-commerce implementation in Tanzania Liberalization of banking industry, 4.
- Gogoski, R. (2012). Payment systems in economy - Present and future tendencies. *Procedia. Social Behavioral Sciences*, 44, 436-445.
- Gyambrah, K. (2016). The contribution of electronic banking to customer satisfaction: A case of Gcb Bank Limited - Koforidua. *International Journal of Managing Information Technology*, 8(1), 1-11.
- Hayashi, F. (2014). Mobile payments: Merchants' perspectives. *Economic Review*, 99, 5-30.
- Hayashi, F. (2012). Mobile payments: What's in it for consumers? *Economic Review-Federal Reserve Bank of Kansas City*, 35-66.
- Hidayanto, A. N., Hidayat, L. S., Sandhyaduhita, P. I., & Handayani, P. W. (2015). Examining the relationship of payment system characteristics and behavioural intention in e-payment adoption. *International Journal of Business Information Systems*, 19(1), 58-86.
- Jun, M., & Palacios, S. (2016). Examining the key dimensions of mobile banking service quality: An exploratory study. *International Journal of Bank Marketing*, 34(3), 307-326.
- Kabir, M. A., Saidin, S. Z., & Ahmi, A. (2017). Adoption of e-payment systems: A review of literature.
- Katherine, N., & Peter, C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6). doi:https://doi.org/10.1509/jm.15.0420
- Kaur, K., & Pathak, A. (2015). E-payment system on e-commerce in India. *International Journal of Engineering Research and Applications*, 5(2), 79-87.
- Kim, J.-H., & Chung, K. (2010). E-service quality perceptions: A cross-cultural comparison of American and Korean consumers. *Journal of Research in Interactive Marketing*, 2040-7122.
- Karjaluoto, H., Karvonen, J., Kesti, M., & Timo, K. (2005). Factors affecting consumer choice of mobile phones: Two studies from Finland. *Journal of Euro Marketing*, 14(3).
- Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2014). Antecedents of the adoption of the new mobile payment systems: The moderating effect of age. *Computers in Human Behavior*, 35, 464-478.
- Lin, C., & Nguyen, C. (2011). Exploring e-payment adoption in Vietnam and Taiwan. *The Journal of Computer Information Systems*, 51(4), 41-52.
- Loonam, M., & O'loughlin, D. (2008). *Exploring e-service quality: A study of Irish online banking*. Marketing Intelligence & Planning.
- Mallat, N. (2007). Exploring consumer adoption of mobile payments - A qualitative study. *Journal of Strategic Information Systems*, 16(4), 413-432.
- Nyumba T. O., Kerrie, W., Christina J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation.
- Odia, E., & Adekunle S. A. (2020). Determinants of customer loyalty to mobile phone brands.
- Oginni, S. O. (2013). *Impact of electronic banking on commercial banks' performance*. Germany: Saarbrücken, Lap Lambert Academic Publishing.
- Oyewole, O. S., El-Maude, J. G., Abba, M., & Onuh, M. E. (2013). Electronic payment system and economic growth: A review of transition to cashless economy in Nigeria. *International Journal of Scientific Engineering and Technology*, 2, 913-918.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. *Journal of Retailing*, 64(1), 12-40.
- Paul, A., & Friday, O. (2012). Nigeria's cashless economy: The imperatives. *International Journal Management Business Studies*, 2, 31-36.
- Peter, M. O., & Babatunde, P. J. (2012). E-payment: Prospects and challenges in Nigerian public sector. *International Journal of Modern Engineering Research*, 5, 3104-3106.
- Qatawneh, A. M., Aldhmour, F. M., & Alfugara, S. M. (2015). The adoption of Electronic Payment System (EPS) in Jordan: Case study of orange telecommunication company. *Journal of Business and Management*, 6(22), 139-148.
- Slade, E. L., Williams, M. D., & Dwivedi, Y. K. (2013). Mobile payment adoption: Classification and review of the extant literature. *Marketing Review*, 3(2), 167-190.
- Slozko, O., & Pelo, A. (2015). Problems and risks of digital technologies introduction into e-payments. *Transformations in Business and Economics*, 14(1), 42-59.
- Tella, A., & Abdulmumin, I. (2015). Predictors of users' satisfaction with e-payment systems: A case study of

- staff at University of Ilorin, Nigeria. *Organizacija*, 48(4), 272-286.
- Tella, A., & Olasina, G. (2014). Predicting users' continuance intention toward e-payment system: An extension of the technology acceptance model.
- Teoh, W. M., Chong, S. C., Lin, B., & Chua, J. W. (2013). Factors affecting consumers' perception of electronic payment: An empirical analysis. *Internet Research*, 23, 465-485.
- Travica, B., Josanov, B., Kajan, E., Vidas-Bubanja, M., & Vuksanovic, E. (2007). E-commerce in Serbia: Where roads cross electrons will flow. *Journal of Global Information Technology Management*, 10(2), 34-56.
- Wenner, G., Obeysekare, E., & Mehta, K. (2017). Organizational models of mobile payment systems in low-resource environments. *Information Technology for Development*, 1-25.
- World Payments Report. (2014).
- Xu, H. (2013). The effect of perceived security on consumers' intent to use: Satisfaction and loyalty to m-commerce in China. *Journal of Electronic Commerce in Organizations*, 11(4), 37-51.