

Research article

ANALYSIS OF THE ADOPTION AND USAGE OF POS TERMINALS BY HOTELS IN JOS METROPOLIS, NORTH CENTRAL NIGERIA

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Abstract

Payment system is a very important aspect of any economy and it is a topical issue due to technological advancements and globalization. Focused countries are expected to ensure that they encourage a payment system that is affordable and convenient for its citizens. This study investigated the adoption and usage of POS terminals as a means of payment by hotels in Jos, North-Central Nigeria. The study used primary data, collected using purposive sampling technique and a structured questionnaire. Using factor analysis and logistic regression, six variables were identified and tested as factors that have either influenced or impeded the usage of the device namely: acceptability, usage, maintenance, connectivity, profitability and reduced exposure to robbery. Findings revealed low adoption of the device by hotels in Jos. It is recommended that regulatory agencies should carry out enlightenment programs that will inform both customers and merchants on the benefits of adopting electronic payment systems, especially POS terminals.

Keywords: *Electronic, Payment, POS, Usage*

1.0 INTRODUCTION

1.1 Background Study

Payments system is a very important aspect of any economy in the world. Encouraging a payment system that is secure, convenient and affordable is one of the prerequisites for the development of any economy (Ajayi&Ojo, 2006; Ismail &Razak, 2011). This is because it represents a channel through which financial resources flow effectively from one segment of the economy to another. Before the emergence of modern banking system, commodities were exchanged for commodities (barter system) and this invariably led to creation of markets and specialization. However, despite the flexibility of the barter system, it depends solely on mutual coincidence of wants. Before any transaction can take place in a barter system, each party must be able to supply what the other party demands. There were also problems such as absence of common measure of value, lack of divisibility and problem of storing wealth. Thus, money sprung forth to facilitate exchange by lubricating the market mechanism, which hitherto relied on the barter system. The introduction of money helped to minimize transaction costs (Wray, 2012).

However, with the advent of information technology and the internet, payment systems have taken a new direction, as electronic money is gradually replacing paper money and coins. According to Bonugli (2006), bank notes and coins are gradually phasing out as an acceptable mode of payment for transactions as more systems are viable and perceived as better alternatives across the world. Nigeria's quest for migrating from cash to cashless economy has been on the front burner (Nwankwo and Eze, 2013). This is based on the premise that, for Nigeria to be among the world leading economies in the world by 2020 electronic payment systems must be embraced in its entirety (Atarere and Osemwegie-Ero, 2013).

It is with this awareness that the CBN introduced electronic payment systems such as payment cards (smart card) and paper- based instrument to the country. This has encouraged e-payment initiatives such as the establishment of switching companies that facilitate interconnectivity, introduction of payment instruments such as point of sale (POS) terminal and automated teller machine (ATM) which gave rise to significant growth in the use of electronic payment systems (Salimon, 2006).

The point of sales terminal represents a platform for promoting electronic payment in the economy. Point-of-sale (POS) terminal is a computerized replacement for a cash register. The POS system can include the ability to record and track customer orders, process credit and debit cards, connect to other systems in a network, and manage inventory. Generally, a POS terminal has as its core a personal computer, which is provided with application-specific programs and operating system for the particular environment in which it will serve. A POS system for a restaurant, for example, is likely to have all menu items stored in a database that can be queried for information in a number of ways. POS terminals are used in most industries that have a point of sale such as a service desk, including restaurants, hotels, entertainment, and museums.

One important industry which the use of POS may improve performance is the hotel industry. The development of the hotel industry has been rapid and wide spread in the last half century. Hotel business is an important service industry in most countries of the world, especially those attracting a large tourist trade. The industry is making heavy investment in new facilities for already existing hotels, including more parking areas, swimming pools, and more new buildings with larger guest rooms being constructed. Gray and Liquor (2004), in their attempt to provide a definition of hotel opined that the word hotel is derived from the French word meaning host, which referred to a French version of a “town house” or any other building seeing frequent visitors, rather than a place offering accommodation. This paper intends to explore the usage and adoption of POS devices in hotels in Jos metropolis.

1.2 Statement of Problem

Payment is becoming a hot topic in the hotel sector due to structural changes such as new business models (e.g., sale of advance purchases via brand.com) and new payment technologies (e.g., mobile payments).Hotels are primarily interested in payments as a means to increasing revenue, especially related to the acceptance of payments from clients and from intermediaries. The hotel industry is rapidly changing due to acceleration in information technology. Most hoteliers however have not made proactive changes which focus more intensely on customer preferences, quality and technological interfaces in order to stay competitive in such a dynamic environment. It is also yet to be seen if hotels have fully adopted the usage of POS and if its usage will have an effect on their performance. In a survey carried out by Financial Derivatives Company (FDC) Ltd for Nigeria Inter-bank Settlement System Plc (NIBSS) in 2012, it was found that in spite of having POS terminals, avenue to electronic funds transfer, and cheques payment, most merchants still accept cash above POS.

In addition, the CBN’s strategic plan on payment system is to ensure that a larger proportion of currency in circulation is captured within the banking system, thereby enhancing the efficacy of monetary policy operations and economic stabilization measures, hence the introduction of electronic payment systems. While there is volume of studies on e-payment system such as ATM and electronic banking, there has been dearth of literature on POS, especially factors influencing its adoption, hence the imperative for this study.

1.3 Research Questions

- a) What is the level of adoption and usage of POS by hotels domiciled in Jos metropolis?
- b) What factors affect the adoption and usage of POS?
- c) What measures can be taken to further enhance the adoption and usage of POS as a means of payment?

1.4 Objectives

The following are the objectives for this study:

- a) Investigate the level of adoption and usage of POS by hotels
- b) Investigate factors affecting POS adoption and usage

- c) Examine the measures that can further enhance the adoptability and usage of POS as a means of payment based on findings.

1.5 Research Hypothesis

H₀: There is no significant relationship between the level of POS adoption and usage of POS by hotels domiciled in Jos metropolis

H₁: There is a significant relationship between the level of POS adoption and usage of POS by hotels domiciled in Jos metropolis

2.0 LITERATURE REVIEW

2.1 Point of Sales Terminals (POS)

The term Point of sale (POS) device most commonly refers to the in-store systems where customers pay merchants for goods and services. A POS is an electronic device capable of processing credit/ debit cards typically issued by banks (Akintola, Akinyede&Agbonifo, 2011). These devices are deployed at commercial outlets where they enable the merchant to collect cards as a means of payment for their goods or services. According to Rouse (2011), a point-of-sale (POS) terminal is a computerized replacement for a cash register. Much more complex than the cash registers of even just a few years ago, the POS system can include the ability to record and track customer orders, process credit and debit cards, connect to other systems in a network, and manage inventory. Increasingly, POS terminals are also Web-enabled, which makes remote training, and operation possible, as well as inventory tracking across geographically-dispersed locations. While some POS transactions are in the form of cash, many of these payments are made by customers swiping their cards through a card reader. These card readers may be stand-alone devices but modern POS systems, especially those in larger retailers, are all-in one system which can handle a variety of customer transactions such as sales, returns, gift cards and promotions.

POS is one of the e-payment systems introduced in Nigeria to further the course of cashless policy. POS as an electronic payment device enables individuals to make purchases with their electronic cards. POS accepts ATM cards for payment of goods and services. The card stores account information on microchips and this microchip contains a purse in which monetary value is held electronically. The card can be used to make purchase of goods and services online, in supermarkets, shopping malls, and other market places. POS allows cardholders to have a real-time online access to funds and information in their bank account through debit or cash cards. POS deployment is projected to hit 350,000 in 2014 from 120,191 in 2013, reflecting growing acceptance of POS and electronic card payments. This is because between 2012 and 2014, it was found that the volume of transactions conducted via POS increased by 183% compound annual growth rate (CAGR) suggesting significant adoption and usage of POS (NIBSS, 2015).

2.2 Benefits of POS

The CBN had disclosed that N150 billion is used to produce, store, transport and protect the Naira, annually (CBN, 2009). First, Cash costs money to produce (It sounds rhetoric, but it is not). To print cash, there is the need to invest in machineries and infrastructures, money inks, security features on cash, and personnel. All of these cost money. Cash costs money to handle or carry, from the point of printing by the CBN to banks and vice versa, from one bank to another bank, from bank to customer and vice versa, from customer to customer, and at different storages (Vaults, Boxes, and wallets) there is a constant risk of loss or damage, and for that, provision is made for securing cash at different levels, both by the Government, banks, and individuals. Since it is easier to monitor electronic transfers than cash transactions, electronic alternatives to cash helps the authorities keep an eye on the movement of money. Specific benefits of using POS terminals in organizations however, includes: Improved efficiency minimizes cash handling and aids reconciliation, increase in sales as Merchant have access to both cash and card-carrying customers, instant confirmation of payment for goods, reduces cost of Personnel and equipment for handling cash receipts, reduces exposure to loss due to armed robbery or pilferage by employees, eliminates the inconvenience of cheque confirmation and clearing period.

2.3 Challenges in the Adoption of POS

Acquisition/total cost of ownership acquisition is a critical factor affecting the proliferation of POS terminals in the economy. This is based on the analyses of the study of the different stakeholders that currently bear the cost of ownership/acquisition of the POS deployment and maintenance in the country (E-PPAN, 2010). For the entire life cycle of the POS machine, the cost of procurement of the device is just 32.5% of the entire cost spent throughout the life cycle of the device, the remaining cost which is a later chunk of the cost is spent on maintenance, servicing, sustaining reliability of the service on the POS machine.

In addition, every new technology into the market has to go through a proper introductory process for the populace to be able to adapt and then benefit from the use of such technology. The POS device as a technology has not been properly introduced to the Nigerian public (Adeoti, 2013). There is a lack of basic education and awareness creation about the POS. This is unlike the ATM machine that is widely appreciated because of its well-executed introduction and enlightenment programs. Many of the consumers do not even know what POS means, what it stands for or what it looks like and what its functions are. There are also issues of fraud, fear of charge, lack of trust in the Nigerian system

Interconnectivity issues are also believed to affect the adoption of POS (Adeoti&Oshotimehin, 2011). These challenges create the inability of cardholders of all issuers to transact business with all POS devices, notwithstanding the acquirer.

2.4 Theoretical Review

This study is premised on two important theories, in relation to adoption and usage of POS terminals. They include the monetary theory and the technology acceptance model. Monetary theory refers to a set of ideas about how monetary policy should be conducted in an economy (Walsh, 2010). The theory suggests that nations can benefit from different monetary policy, depending on the uniqueness of their resources and limitations. This implies that factors like size of the money supply, price levels and benchmark interest rates should be considered before policies are introduced.

The technology acceptance model (TAM) is an information systems theory that describes how users accept and use a technology that will stimulate economic growth. Proponents of this model believe that “.....because new technologies are complex and an element of uncertainty exists in the minds of decision makers with respect to the successful adoption of them, people form attitudes and intentions toward trying to learn to use new technology prior to initiating efforts directed at using. Attitudes towards usage and intentions to use may be ill-informed or lacking conviction or else may occur after preliminary strivings to learn to use the technology evolve. Thus, actual usage may not be direct or immediate consequence of such attitudes and intentions” (Bagozzi, Davis &Warshaw, 1992:672).

The model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived use of ease. The former refers to the degree to which a person believes that the use of a system will improve his performance while the latter refers to the degree to which a person believes the use of a system will be effortless (Attuquayefio, Achampong&Aryeetey, 2014).

The implication of these theories is that before policies are introduced, several factors that will either buttress or impede its success should be considered.

2.5 Empirical Review

Many authors have in one way or the other investigated the introduction of electronic devices in making payments for transactions, their adoption and implications on the economy in both developed and developing countries. Adeoti (2013) analysed the challenges to the efficient use of point of sale (POS) terminals in Nigeria. The finding of this study showed that that the most challenging factor to the efficient use of POS is network failure, frequent power outage; limited numbers of POS per merchant store where they are available, security of communication over the network and unavailability of the POS at all merchant stores. In the works of Taylor and Todd (1995) and Gefen and Straub (1997), it was found that gender has a direct influence on adoption of technology with men and women having different rates of computer technologies adoption.

Putrevu (2002) used descriptive survey to ascertain the origin of technology and information difference between man and woman. He found out that difference in information processing exists between men and women and as such

both genders will have different rate of technology acceptance. Ekwueme, Egbunike&Okoye (2012) studied the operational efficiency of electronic banking in Nigeria and found out that the practice of e-banking in Nigeria is significantly related to increased operational efficiency of Nigerian banks, though the security problem was found to exist. They however suggested that a forward-looking economy should embrace the modern payments system, such as credit card, electronic money, electronic fund transfer, Automated Teller Machine (ATM) and debit cards in its entirety. Another definitive study on the effects of POS deployment by Dion (2003) analyzed the impact of POS by using a true control methodology that demonstrated the difference between a store with POS technology and one without. This study reported an amazing 29% increase in sales and a 34% increase in gross profit in the store with a POS system. The study revealed that a store can increase its net profit by at least ten percent within a year of deploying the technology and fully using it. This would translate into a substantial return on investment as the majority of independent retailers spend about two percent of sales to acquire the technology.

More recently, Omotayo (2015) investigated the factors affecting adoption of POS by organisations in Lagos and Ibadan metropolis, Nigeria using the Technology Acceptance Model as the theoretical framework. The results reveal that subjective norms and perceived ease of use have significant relationship with adoption of POS machine by the organisations. However, the characteristics of the organisations, image and perceived usefulness do not have significant relationship with adoption of POS.

In summary, while some researchers have attempted to investigate the factors affecting the adoptability and usage of POS terminals. It is however important to note that these factors might not cut across all industries. No study has carried out an industry specific study on the adoption and usage of POS. This study focuses on tourism industry (hotels) in Jos metropolis.

3.0 METHODOLOGY

The study was carried out in Jos metropolis. This comprises parts of Jos north and Jos South local government. Jos represents one of the most urbanized cities in north central Nigeria where electronic payment system is gaining acceptance. The data for this study is primary data, collected through a structured questionnaire of five-point likert-scale ranging from “strongly agree” to “strongly disagree” (5 = ‘Strongly Agree’, 4 = ‘Agree’, 3 = ‘Undecided’, 2 = ‘Disagree’ and 1 = ‘Strongly Disagree’). The questions focused on adoption of POS terminal and factors affecting its usage. A total of 190 hotels were identified operating within and around the Jos Metropolis. The research covered 174 of these hotels, selected through purposive sampling. Out of this, only 49 of the hotels use the device. These hotels were used for further analysis in this study. The method of data analysis for this study is Factor analysis and Logistic regression. Factor analysis (Principal Component Varimax Rooted Factor Analysis Method) was used to group the factors that influence the adoption and challenges of point of sales terminals as a means of payment in Hotels resident in Jos metropolis. Logistic regression was used to test the hypothesis

4.0 DATA ANALYSIS AND RESULTS

To ensure reliability, the survey questionnaire was tested in order to determine if the scale consistently reflects the construct it is measuring. This is achieved using Cronbach's coefficient alpha which is the most common measure of scale's internal consistency. It proceeds by associating each measurement item against each other and obtaining the mean correlation for all paired association (Asika, 2004).

Table 1 Reliability Statistics

Cronbach's Alpha	N of Items
.700	10

The reliability measures show that Cronbach's Alpha value is 0.700. This indicates that the questionnaire is valid and reliable.

The method of data analysis for this study is Factor analysis. Factor analysis (Principal Component Varimax Rooted Factor Analysis Method) was used to group the factors that influence the adoption and challenges of point of sales terminals as a means of payment in Hotels resident in Jos metropolis.

Table 2: Data adequacy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.588
Approx. Chi-Square	167.244
Bartlett's Test of Sphericity Df	45
Sig.	.000

Before using factor analysis, the data adequacy was tested. Data adequacy shows KMO (Kaiser-Meyer-Olkin) and Bartlett's Test of Sphericity. KMO indicator varied from 0 to 1. In the case where the indicator is closer to 1, data adequacy is higher. The criterion of Bartlett's test of sphericity of chi-square value is 167.244 with 45 degree of freedom at 0.05 level of significance. According to Table 2, KMO indicator 0.588 shows that data is adequately near to 1 and also Bartlett's Test of Sphericity shows that significant is valued perfectly because of the significance $P < 0.05$. This indicated the appropriateness of factor analysis for this study.

Table 3: Total variance

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.434	34.341	34.341	3.434	34.341	34.341	2.947	29.472	29.472
2	1.826	18.257	52.598	1.826	18.257	52.598	2.059	20.585	50.058
3	1.203	12.034	64.632	1.203	12.034	64.632	1.457	14.574	64.632
4	.880	8.797	73.429						
5	.761	7.612	81.041						
6	.646	6.463	87.504						
7	.595	5.951	93.455						
8	.400	4.001	97.456						
9	.154	1.539	98.995						
10	.101	1.005	100.000						

Extraction Method: Principal Component Analysis.

Table 3 shows the Principal component analysis (PCA) with varimax rotation was estimated. The result indicated that there are three major factors that influence adoption and challenges of point of sales terminals as a means of payment in Hotels resident in Jos metropolis. The three major factors were extracted from the analysis with an Eigen value of 1, which explained 64.63% of the total variance.

Table 4: **Rotated component matrix for POS in Hotels**

Rotated Component Matrix^a

	Component		
	1	2	3
POS are gradually phasing out bank notes and coins as an acceptable mode of payment for transactions in your business	.741		
POS is perceived as better alternative for transacting Business			
For your organisation to cope in today's business environment, POS usage must be embraced in its entirety	.872		
POS system has the ability to record and track customer orders, process credit and debit cards for your organisation	.710		
The Introduction of POS in Your hotel has increased sales/profit as we have access to both cash and card-carrying customers			.798
POS system is a strategy to attract and retain loyal customers for company as it has increased patronage			
The introduction of POS has reduced exposure to loss due to armed robbery or pilferage by employees			.651
POS has reduced cost of personnel and equipment for handling cash receipts in your organisation	.628		
The challenge of Spending money in maintenance, servicing, sustaining reliability of the service on the POS machine is faced by your organisation		.922	
The hotel experience connectivity issues in POS usage		.939	

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 5 iterations.

The result of the factor analysis is presented in Table 4. The factor loadings ranged from 0.93 to 0.628. The higher a factor loading, the more its test reflects or measures as indicators.

Factor I

Acceptability and usage: This factor was represented by two major variables with factor loadings ranging from 0.872 to 0.741. They are acceptability and usage. This factor accounted for 34.34% of the rated variance.

Factor II

Maintenance and Connectivity: This factor was represented by two major variables with factor variable with loadings of 0.922 and 0.939 which are maintenance and connectivity issues. This factor explained 18.25% of the rated variance.

Factor III

Increased profit and reduced exposure to robbery: This factor was represented by two major variables with factor variable with loadings of 0.798 and 0.651 which are profitability and reduced robbery issues. This factor explained 12.03% of the rated variance.

Model specification

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = \beta_1 + \beta_2 ADP$$

Where:

L is the logit.

P_i , the probability of Usage denoted as one 1

$(1 - P_i)$, the probability non-usage denoted as 0

$Ln = \log$

ADP=Level of adoption

Table 5: Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a						
ADP	9.223	2456.614	.000	1	.997	10130.665
Constant	-17.060	4913.229	.000	1	.997	.000

a. Variable(s) entered on step 1: ADP.

$$Y = L_i = \ln\left(\frac{P_i}{1 - P_i}\right) = -17.060 + 9.223X$$

Table 5 shows the relationship between coefficient of level of POS adoption and POS Usage indicates that a positive relationship exists. The coefficient shows that 9.223 units of usage is achieved as the level of adoption increases. This suggests that POS adoption is more likely to increase the level POS Usage among Hotels in the Jos Metropolis.

However, the P-value of the Wald test which is (0.997) is greater than the level of significance of 0.05. Therefore, there is no significant relationship between the level of POS adoption and usage of POS by hotels domiciled in Jos metropolis. This implies that though a positive relationship exists, the relationship is not significant. Suggesting that the insignificant effect of the POS adoption on usage is as a result of low level of adoption and acceptability.

5.0 DISCUSSION OF FINDINGS

The result from the analysis shows that there is no significant relationship between the level of POS adoption and usage of POS by hotels domiciled in Jos metropolis. It also revealed low adoption of the POS terminals by hotels in Jos metropolis. Out of 174 hotels, only 49 of them have this device. This might be as result of the difficulty inherent in adopting new technologies. This is consistent with the contention of Bagozzi, Davis & Warshaw (1992) who believes that new technologies are complex and an element of uncertainty exists in the minds of decision makers with respect to the successful adoption of them. In effect, people form attitudes and intentions towards trying to learn to use new technology prior to initiating efforts directed at using them. Another reason that could be adduced to this might be lack of proper orientation about the benefits of usage of this device. Adeoti (2013) had argued that the POS device as a technology has not been properly introduced to the Nigerian public and there is lack of basic education and awareness creation about it unlike the ATM.

For hotels that have been using the device in Jos metropolis, further analysis revealed that there are three major factors divided into six variables that influence the adoption and challenges of point of sales terminals. Hotels that use the device believe that it is totally acceptable and is phasing out the bank note and coins. This reflects the opinion of Ekwueme, Egbunike & Okoye (2012) that a forward-looking economy should seriously think of embracing the modern payments system, such as credit card, electronic money, electronic fund transfer, and Automated Teller Machine (ATM) and debit cards. Findings of the study further revealed that maintenance and connectivity are the major setbacks for the usage of POS among the hotels in Jos metropolis. This is similar with the opinion of Adeoti (2013) who opined that network and unavailability are the major setbacks for the usage of POS terminals by merchants. As a device, it is imperative that post installation maintenance of hardware and cabling, reactive services and preventative maintenance services will be required on POS devices and these forms of maintenance do not ordinarily come without its attendant costs. Interconnectivity issues will obviously discourage both merchants and card holders from using devices especially when there repeated occurrences.

Finally, the study discovered that the adoption and usage of POS has helped to increase the level of profitability for hotels. This could be made possible because the frequent use of the device makes the business less open to cash payments and unwarranted expenses that come as a result of cash handling. This supports Dion (2003)'s study which found out that stores with POS systems have 29% increase in sales and a 34% increase in gross profit in the store with system compared to stores without POS systems. The usage of POS also reduced their susceptibility to robbery as a result of increased card carrying customers and less exposure to cash.

6.0 CONCLUSION AND RECOMMENDATIONS

The importance of POS cannot be overlooked because it is one of the electronic means of transaction. A forward looking economy should ordinarily grow with world technological changes and one of such prerequisites is to ensure its payment systems are in sync with internationally acceptable payments systems. The study investigated the adoption and usage of payment systems in Jos metropolis. This is premised on the belief that hotels are primarily interested in payments as a means to increasing revenue, especially related to the acceptance of payments from clients and from intermediaries. The hotel industry is rapidly changing due to acceleration in information technology. The study found out the level of adoption in Jos to be relatively low. The study however focused on users of this device and further discovered that its usage is gradually eroding the use of cash as a means of payment. Users believe that usage of the device has increased profitability and reduced exposure to robbery attacks. However, major problems identified in using this device are maintenance and connectivity.

Based on findings, the following are recommended. Firstly, regulatory agencies should carry out enlightenment programs that will inform both customers and merchants on the benefits of adopting electronic payment systems, especially POS terminals. This is expected to further encourage its adoptability and usage. Secondly, cost of maintenance of the device can be shared by issuing banks and merchants to alleviate the cost merchants bear in maintaining the device. Thirdly, banks should intensify efforts to deploy more POS to organisations in the locations of study as well as other parts of the country to further promote the adoption of POS among organisations that are yet to adopt. As a critical factor for success, the necessary infrastructure, such as internet access, that would make the cash-less policy to work in Nigeria should be made available.

Further studies can explore the adoptability and usage of this device in other industries and other parts of the country. In addition, reasons for non-usage by non- users can be investigated in further studies.

REFERENCES

- [1] Adeoti, O. (2013). "Challenges to the efficient use of point of sale (POS) terminals in Nigeria", African Journal of Business Management Vol. 7(28), pp. 2801-2806,
- [2] Adeoti, O. and Oshotimehin, K. (2011). "Factors influencing consumers' adoption of point of sale terminals in Nigeria", Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 2 (5): 388-392

- [3] Akintola, K., Akinyede, R.&Agbonifo, O. (2011), Appraising Nigeria Readiness for Ecommerce Towards Achieving Vision 20:2020, IJRRAS 9 (2), pp 330-340
- [4] Ajayi, S &Ojo, O (2006). Money and Banking: Analysis and Policy in the Nigerian Context, Second Edition, University of Ibadan: Daily graphics Nigeria Limited.
- [5] Attuquayefio, S., Achampong, A. &Aryeetey, I. (2014).Extending TAM with social norm to Model students' intentions to adopt ICT.European Scientific Journal, 10(14), 435-446.
- [6] Asika, N. (2004). Research methodology in the behavioural Sciences, Abuja: Longman Nigeria Plc.
- [7] Bagozzi, R ;Davis, F.;Warshaw, P (1992), "Development and test of a theory of technological learning and usage", Human relations 45(7) pg 660-686
- [8] Bonugli, P (2006), "The cashless society: Increased usage of Card-based Payment Systems", Electronics and Computer Science, University of Southampton
- [9] Central Bank of Nigeria (CBN) Report, 2009
- [10] Dion, J. (2003). The effect of POS implementation and retail technology on sales and profitability: Winning strategies for retail industries available @ https://mbs.microsoft.com/Downloads/Public/Product_Images/DownLoads/L0WP-0000-POS0000.pdf assessed 5th February, 2016.
- [11] Ekwueme, C., Egbunike, P. &Okoye, A. (2012).An empirical assessment of the operational efficiency of electronic banking: evidence of Nigerian banks, Review of Public Administration and Management Vol. 1, No. 2, pp 76-110
- [12] E-PPAN (2011). White paper on point-of sale an an E-payment channel by E-payment providers association of Nigeria, Project working group available @ http://www.e-ppan.org/eppan_library/White%20Paper%20on%20POS.pdf assessed 9th October, 2015
- [13] Gray, W. &Liou, S. (2004). "Hotel and motel management and operations", Third Edition, Singapore:Prentice Hall
- [14] Hotels in Jos available @ <http://www.businesslist.com.ng/category/hotels/city:jos> assessed 14th November, 2015.
- [15] Ismail, M. &Razak, R. C. (2011). The determinant factors influencing young consumers' acceptance of mobile marketing in Malaysia. African Journal of Business Management, 5(32), 12531-12542.
- [16] Nwankwo,O&Eze O (2013). "Electronic payment in Cashless Economy of Nigeria: Problems and Prospect", Journal of Management Research, Vol 5(1) pg 139-15
- [17] Rouse, M. (2011). Point-of-sale terminal (POS terminal), Software applications glossary available at <http://whatis.techtarget.com/definition/point-of-sale-terminal-POS-terminal> assessed 7th October, 2015
- [18] Walsh, C. (2010). Monetary theory and policy, Third Edition, Massachusetts: The MIT Press
- [19] Wray,R (2012). Introduction to an alternative history of money; Working paper No. 717, Levy Economics Institute of Bard College