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Determinants of Customers E-Payment Utilization in Commercial Bank of Ethiopia the Case of Nekemte Town

By

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ABSTRACT

The study was intended to analyze the determinants of customers E-payment utilization in the Commercial Bank of Ethiopia Nekemte town. To achieve the objectives, both primary and secondary data were collected from the selected samples. The collected data were analyzed by employing descriptive statistics and ordered logit model by using STATA software version 12. The major finding of the study shows that among the demographic related factors customer's education and income level has positively influenced their E-payment Utilization activities, whereas among the institutional related factors the network interruption and service charge levied by the bank has a negative influence while the customer satisfaction and cost reduction concern has a positive influence on their E-payment Utilization activities. Lastly, among the customer related factors both perceived risk and lack of willingness to use the service has a negative influence on their E-payment utilization activities in the study area. Based on the result, the authors recommended that the institution has to seriously focus on the improvement of frequent quality service delivery in its daily operations that encourage their E-payment utilization activities and the branch supervisors has to deal with the concerned body on the network interruption and service charge levied by the bank in order to facilitate the smooth functioning of customers *E*-payment utilization activities.

Keywords: E-payment, Utilization, Determinants, Customers, Nekemte town, Commercial Bank of Ethiopia.

Introduction

It is obvious that the rapidly growing information and communication technology (ICT) is knocking the front door of every organization in the world. As a result, in the face of rapid expansion of electronic payment (E-payment) systems throughout the developed and the developing world, Ethiopian's financial sector cannot remain an exception in expanding the use of the system (Gardachew, 2010). The author also pointed out that technological innovations play a crucial role in banking industry by creating value for banks and customers, that it enables them to perform banking transactions without visiting the brick and mortar banking structure. On the other hand according to Turban (2008) E-Payment has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space and mirroring the development of E-commerce.

Thus, the increasing competitive environment in the financial service market has resulted in pressure to develop and utilize alternative delivery channels such as electronic banking (E- banking) that includes Automated Teller Machine (ATM), mobile and Internet (online) banking, electronic funds transfer, direct bill payments and credit card. The main move to e-banking is to cut costs while maintaining reliable customer services (Shaikh, 2014).

The modern business environment is dynamic and complex, throwing a wider range of challenges to customers of different institutions. This has forced the hand of businesses in innovation and invention, causing a scenario where a business is never resting on its laurels due to fear of being overtaken by competitors. E-Payment utilization is growing substantially faster hence becoming increasingly important as a source of business in the world economy. Banks have realized immense efficiency and effectiveness in disbursement of funds either to other banks or to individual client's accounts using ICT. Unfortunately, traditional e-payment systems such as Money Gram and Western Union are noted to have many limitations which inhibit consumers from adopting them. Some of these factors relate to lack of trust, security, usability, high transaction costs, lack of perceived advantage and potentially high perceived risk (Ozkan *et al.*, 2010).

Even though the National, regional or international set of laws, rules and other regulations are important requirements for the successful implementation of E-payment schemes, Some of the major elements include rules on money laundering, supervision of commercial banks and E- payment institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues has categorized as a huge bottlenecks for the successful implementation of the payment method. As a result, some customers get frustrated with these incidences which result in distrust of the payment method hence low public acceptability and low level of awareness creation to the public in the study area in particular (Gardachew, 2010). Thus, this study focuses on the determinants of customer's e-payment utilization in Ethiopia, the case of commercial bank of Ethiopia Nekemte town.

The main objective of the study was to investigate the determinants of customers Epayment utilization in the Commercial Bank of Ethiopia Nekemte town. Specifically, the study was aimed to analyze the determinants of Customers E-payment Utilization to examine the demographic factors; the institutional factors; and the Customer related factors that influence Customers E- Payment Utilization in the study area.

To identify the major the determinants of customers E-payment utilization in the Commercial Bank of Ethiopia in the town with the above objectives, this research paper answers the following general questions, which are useful in identifying the determinants of customer's E payment utilization in the town:

- What are the demographic related factors that influence E- Payment Utilization of Customers in the study area?
- What are the institutional related factors that influence E- Payment Utilization of Customers in the study area?
- What are the Customer related factors that influence their E- Payment Utilization in the study area?
- After the detail analysis of the determining factors that affect E-Payment Utilization of the customers' of the Commercial Bank of Ethiopia in the study area, this study contributes to a better understanding with regard to the usage of E-Payment models and electronic payment systems in the Bank. As a result, this leads to generate mutual

benefits for both the Bank as well as Its Customers with particular emphasis in the study area through which smooth, Secured and easy way of transactions to happen.

Literature Review

E-Payment is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009). E-banking, also known as Electronic Funds Transfer is simply the use of electronic means to transfer funds directly from one account to another rather than by check or cash (Malak, 2007). The term of E-payment often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services (Furst and Nolle, 2002).

The appearance of E-Payment in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE have had Visa membership since November 14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment system, Dashen Bank remains so far the sole player in the field of E-Banking since 2006 (Gardachew, 2010).

Banking in Ethiopia faces numerous challenges to fully adopt and utilize E-Banking applications and seize the opportunities presented by ICT applications in general. A study conducted on the opportunities and challenges of E-banking in Ethiopia and found that lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks are the major challenges. The research output showed Opportunities offered by ICT through e-learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using Ecommerce and E-payment systems (Gardachew, 2010).

Similar study found that the main obstacles to the development of E-payments are lack of customers trust in the initiatives, lack of payment laws and controlling system for E-payment, lack of skilled manpower and frequent power disruption, low level of internet penetration and poorly developed telecommunication infrastructure (Wondwossen and Tsegai, 2005).

Empirical Review

An empirical study related to E-Payment utilization has assessed several studies that there are several factors influencing the customers E-Payment utilization activities in the outside banking industry as follows. Hamidinava and Madhoushi (2010) studied to evaluate the Electronic Payment System in the view of Iranian bank users the specifications are classified into four sub-structures such as technical, legal, security and socio-economic and it was revealed that socio-economic index has major influence on adoption of E-payment services in Iran.

In another perspective, Peter and Babatunde (2012) viewed e-payment system as any form of fund transfer via the internet. Similarly, according to the study the electronic payment system refers to an electronic means of making payments for goods and services procured online or in supermarkets and shopping malls. Another definition suggests that E-payment systems are payments made in electronic commerce environment in the form of money exchange through

Tesfaye Eresso GOFE, *Ph.D* & Dereje Regasa TULU, *Ph.D*

electronic means (Adeoti and Osotimehin, 2012). Likewise, his finding indicates that there is no significant relationship between perceived ease of use and adoption of Mobile banking technology. Another study shows that the perceived financial cost and perceived credibility are two crucial factors influencing people intention to adopt mobile banking and he also found that the intention to use mobile banking was influenced by the extent of security and privacy associated concern within the context of mobile banking (Chian-Son, 2012).

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on the adoption of technological innovation and in fact mobile banking is in an infant stage for Ethiopian bank customers, but the need for research is essential in this stage, because previous studies which are done in mobile banking and factor affecting the adoption of E- payment usage have result different finding. In such away, study conducted on the opportunities and challenges of E-banking in Ethiopia. The aim of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system (Gardachew, 2010).

Also similar study carried out by Wondwossen and Tsegai (2005) on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and Frequent power disruption.

Conceptual Frame Work

As it has been reviewed from previous empirical studies in the above sections, factors that determines E-payment utilization in the study area were divided into demographic related factors, Institutional related factors and Customers' related factors that hinder their E-payment adoption behavior. Thus, this study has constructed the following conceptual framework based on the reviewed empirical findings as follows.



Figure-1: Conceptual frame work.

Source: Adopted and Modified from Gardachew (2010) and Nasri (2011).

Methodology

The Target population of the study composed of E-Payment using customers of the Bank which include eight operating branch customers using E-payment service i.e. Mobile banking, Internet banking, ATM and POS users of Nekemte, Kumsa Moroda, Leka, Harosorga, Kesso, Komto, Bake Jama and Biftu Nekemte branches comprising 47,618 customers as the total population for the study.

By focusing on the users of E- payment service, the study employed explanatory survey and Convenience sampling technique. According to Mugenda and Mugenda (2003) this survey research design is a systematic gathering of information from a sample of respondents for the purpose of understanding and predicting some aspects of the behavior of the population of interest. This allowed for the collection of quantitative data which can be analyzed quantitatively through descriptive and inferential statistics. In order to gather relevant data the study employed both the primary and secondary sources of data for the credibility of the study.

In sample size determination, the study includes all customers using E- payment services and the sample size was determined by using (Watson, 2001) standardized statistical formula. It is selected because of that the formula used to calculates the number of sample size required from the strata's having large number of populations to the minimum represented sample size. Using formula required sample computed the the size is 258. The gathered data from the respondents through structured questionnaire were analyzed by using explanatory descriptive statistics such as mean, standard deviation, standard error of the mean and employs Ordinal Logistic Regression model by using STATA software Version 12 to analyze the collected data that was presented in the form of table, bar graphs, pie charts and the presented data was also be interpreted to provide detailed conclusions and recommendations regarding to the effect of independent variables on the dependent variables that determines E-Payment Utilization in the study area.

The study variables composed of both dependent and independent variables through which the independent variables counter acts on the dependent variables. The dependent variables of the study were deals with the Determinants of Customers E-payment Utilization a case of Commercial Bank of Ethiopia in Nekemte town.

Based on the existing literature on the determinants of customers E-Payment Utilization (EPU) in the study area, the following explanatory variables was considered and it was analyzed by using Ordinal Logistic Regression Model. As a result, the variables that mainly affect repayment of customers' E-payment Utilization in the Commercial Bank of Ethiopia Nekemte town are determined quantitatively in the model implicitly specified as follows:

Variables	Descriptions	Value of labels
Dependent variable	E-Payment Utilization (EPU)	0 = If, Rarely Users $1 = $ If Mid Users,
	1	2= If Frequent Users
Independent variables		
Variable name	Demographic Related factors	
Gender	Gender of the respondents.	0 = Female, $1 = $ Male
Age	Age of the respondents.	0 = If <25, 1 = If 26-35, 2 = If 36-45, 3 = If >46 years old.
Marital status	Marital status of respondents.	0 = Single, 1= Married,2 = Divorced, 3 =Widowed
Education level	The respondent's education level	0 = Primary School 1 =Secondary School,2 =Preparatory School 3 =TVET School, 4 = Degree and above.
Income level	The respondent's income level.	0 = If <1500,1= If 1501-3500, 2 = If 3501-5500, 3 = If 5501-8500, 4 = If >8500 in ETB.
	Institutional Related Factors	
Network interruption	Network interruption of Branches in the town	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Service charge	Service Charge that collected by the Bank	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Security concern	Security Concern in the Branch	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Customer satisfaction	Customer Satisfaction from the Branch	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Lack of trained man power	Lack of trained man power in The Branch	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Cost reduction concern	Cost Reduction Concern from customers of the Branch	0 = If Strongly Disagree, 1 = If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
	Customers' Related Factors	
Perceived risk	Customers Perception towards Risk	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Perceived usefulness	Customers Perception towards its Usefulness	0 = If Strongly Disagree, 1 = If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Perceived ease of use	Customers Perception towards its Ease of Use	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.
Lack of willingness to use	Customers Lack of Willingness to Use E- Payment Service in the study area.	0 = If Strongly Disagree, 1= If Disagree, 2 = If Neutral, 3 = If Agree, 4 = If Strongly Agree.

Table-1: Summery for the descriptions of study variables.

Source: Primary data 2019.

Econometric Model Specification

The researcher employed Ordered Logistic Regression Model that is often used to approximate the mathematical relationships between the explanatory variables having more than two ordered dichotomous values of the dependent variable which is the extension of binomial logistic regression model. Thus, using the following regression model equation through which the customers E-Payment Utilization was used as dependent variable that is valued as 0 = If Rarely Users (Once Monthly and Above) 1 = If Mid Users (Once a Week) and 2= If Frequent Users (Daily).

As a result, this model is selected due to the nature of the response which the dependent variable (E-Payment Utilization) is bearing, multiple ordered or ranked responses (Turban, 2008). Thus in this study, the factors determining customers E-Payment Utilization include; Demographic, Institutional and Customers Related Factors was used as independent Variables in the study area. As a result, in order to analyze the determinants of E-Payment utilization in the study area, this study employs Ordered Logistic Regression Model analysis using the regression model equation stated as follows:

 $Yi = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 \dots + \beta nXn + \epsilon i$

Where: Yi = the dependent Variable (E-Payment Utilization).

 $\beta 0 = Constant.$

 $\beta 1...\beta n =$ Coefficient of the independent variables.

X1...Xn = Independent variables included in the study area refers to an Error terms involved in the study variables (Verbeek, 2008).

The Model Specification Tests

In order to check the model the Goodness-of-Fit Test, Correlation Covariance Test, Multicollinearity test, and The Link Test in the model were used.

Goodness-of-Fit Test

The measure of goodness-of-fit test used in the ordered logit regression model was the pseudo R2, Chi-square and p- value of the model output. In such a way, pseudo R2 is a measure that at least lies in the Adeoti and Osotimehin (2012) interval (Windmeijer, 1995). Usually the value found in range 0.1 up to 1 is normal in ordered logit regression model (Pindyck and Rubinfeld, 1998).

Correlation Covariance Test

This test used to detect the existence of correlation covariance among the variables included in the model which has to be less than 0.5 across the horizontal and vertical lines comparatively which indicates that the relationship between the dependent and independent variables either moves to the similar direction or to different direction (Verbeek, 2008).

Multicollinearity Test

In our case before running the ordered logit regression model, explanatory variables were checked for Multicollinearity (Verbeek, 2008). Since, Multicollinearity is a problem when

Tesfaye Eresso GOFE, Ph.D & Dereje Regasa TULU, Ph.D

the explanatory variables in multinomial logit model are highly correlated and provide redundancy information about the response.

The Link Test in the Model

The link test used to evaluate the relationship among the dependent and independent variables in the model by analyzing Prob > F, P > t, hatsq and etc in order to test the significance and fit the model.

Results and Discussions

Demographic Characteristics of the Sampled Respondents

Based on summary statistics of respondent's demographic characteristics were presented with particular reference to gender, age, marital status, education level and Income Level were discussed in the table consecutively as follows.





140 119 120 100 80 65 60 16.12% 40 40 5 59 20 3 18% 0 <25 26-35 36-45 >46 Freq. Percent

Source: Primary data 2019.

Figure-3: Age of the respondents.

Source: Primary data 2019.



Figure 4: Marital statuses of the respondents.

Source: Primary data 2019.

Respondents Education Level	Frequency	Percentage		
Primary School	98	37.98		
Secondary School	44	17.05		
Preparatory School	38	14.73		
TVET School	36	13.95		
Degree and Above	42	16.28		
Total	258	100.00		

Table-2: Education levels of the respondents.

Source: Primary data 2019.



Figure-5: Income levels of the respondents.

Source: Primary data 2019.

Figure-6: respondents of E-payment utilization activity.

Percentage share of respondents E-payment utilities



Figure-7: Respondents point of view on the lack of trained man power. **Source:** Primary data 2019.

Customer's Opinion on Cost Reduction Concern	Frequency	Percentage
Strongly Disagree	34	13.18
Disagree	40	15.5
Neutral	71	27.52
Agree	44	17.05
Strongly Agree	69	26.74
Total	258	100

Table-3: Respondents point of view on the cost reduction concern.

Source: Primary data 2019.

Ordinal Logistic Regression Model

The Summary Statistics of the Variables in the Model

The summary statistics in this study composed of both dependent and independent variables, this variables in the model were presented by using the mean, standard deviation, minimum and the maximum values across all individual observations.

Independent variables	VIF	1/VIF =TOL
Gender	1.11	0.899950
Age	1.06	0.942615
Marital status	1.11	0.896918
Education level	1.14	0.880067
Income level	1.33	0.751210
Network interruption	1.09	0.921474
Service charge	1.06	0.940226
Security concern	1.17	0.855918
Customer satisfaction	1.11	0.899858
Cost reduction concern	1.37	0.727770
Lack of trained man power	1.10	0.911685
Perceived risk	1.44	0.692788
Perceived usefulness	1.12	0.896069
Perceived ease of use	1.39	0.719798
Lack of willingness to use	1.09	0.917813
Mean VIF	1.18	

 Table-4: Multicollinearity test.

Source: Primary data 2019.

The two popular methods where used to detect the presence of Multicollinearity are Variance Inflation Factor (VIF) and Tolerance (TOL) that calculated as follows;

$$\text{VIF}_{i} = \frac{1}{1-R_{i}^{2}}, \ TOL = 1-R_{i}^{2}$$

Where, R2 is calculated by regressing the variables, a common rule of Verbeek indicates that if VIF is 10 or greater than 10 and a TOL is equal to 0.10 Or less it may indicate the presence of multicollinearity problem in the model otherwise free from the problem.

Tesfaye Eresso GOFE, Ph.D & Dereje Regasa TULU, Ph.D

Source	SS	Df	MS	Number of obs. =		258	
				F(2,	255)	=	58.14
Model	50.343379	2	25.17168	Prob>	F	=	0.0000
Residual	110.400807	255	.432944	R-squa	red	=	0.3132
				Adj R-	square	d =	0.3078
Total	160.744186	257	.625463	Roc	ot MSE	2 =	=
						.65799	
E-Payment Utilization	Coef.	Std. err.	Т	P>t	[95%	OConf.	Interval]
_hat	1.663848	.360098	4.62	0.000	.954	17029	2.372993
_hatsq	3154336	.1651425	-1.91	0.057	64	06505	.0097833
_cons	2895605	.1866016	-1.55	0.122	65	57037	.0779159

Table-5: The link test.

Source: Primary data 2019.

 Table-6 Ordered logistic regression model result.

Number of obs. = 258 LR chi2(15) = 90.13 Prob> chi2 = 0.0000 Pseudo R2 = 0.1600

Determinants of E- Payment	Coef.	Std. err.	Z	P>z	[95%	Interval]	
utilization					Conf.		
	Demographic related factors						
Gender a	.1597202	.2669943	0.60	0.550	3635789	.6830194	
Age	0805444	.1406558	-0.57	0.567	3562247	.1951358	
Marital status	1000148	.1209703	-0.83	0.408	3371122	.1370826	
Education level	.4764606	.0924689	5.15	0.000*	.2952248	.6576964	
Income level	.1727034	.1000862	1.73	0.084***	0234619	.3688687	
	Institutional related factors						
Network interruption	2984402	.1045683	-2.85	0.004*	5033903	0934901	
Service charge	1975248	.0878538	-2.25	0.025**	369715	0253346	
Security concern	0903426	.0889359	-1.02	0.310	2646538	.0839685	
Customer satisfaction	.2039763	.0909627	2.24	0.025**	.0256927	.3822599	
Cost reduction concern	.2787934	.1098182	2.54	0.011**	.0635536	.4940332	
Lack of trained man power	.147882	.0905407	1.63	0.102	0295745	.3253386	
	Customers related factors						
Perceived risk	3268089	.1002629	-3.26	0.001*	5233206	1302972	
Perceived usefulness	0217966	.0909838	-0.24	0.811	2001215	.1565284	
Perceived ease of use	0722453	.1059017	-0.68	0.495	2798089	.1353182	
Lack of willingness to use	2167154	.0942054	-2.30	0.021**	4013546	0320762	
/cut1 -1.163721		.5922108	-2.3	324433	0030089		
/cut2 .9117329		.588051	24	08259	2.064292		

Source: Primary data 2019.

As detailed in the 6.5 above, at the top of the output we see that 258 the number of observations in this data set were used for analysis. The likelihood ratio Chi-square (15) of

Tesfaye Eresso GOFE, Ph.D & Dereje Regasa TULU, Ph.D

90.13 with p- value of 0.0000 and Pseudo R2 of 0.1600 tells us that this model composed is more suitable and significant.

As a result, from the result of Ordered Logistic Regression Model analysis on the determinants of E-payment utilization in the study area using the following regression model equation, the signs and significant variables (Coefficients of β 's) were obtained which is stated as follows;

 $Yi{=}\beta 0+\beta 1X1+\beta 2X2{+}\beta 3X3{+}\beta 4X4{+}\beta nXn{+}\epsilon i$

$$\begin{split} EPU &= \beta 0 + Education \ Level + \ Income \ Level - \ Network \ Interruption - Service \ Charge + \\ Customer \ Satisfaction + Cost \ Reduction \ Concern - Perceived \ Risk - Lack \ of \ Willingness \ to \ Use + \\ \epsilon i. \end{split}$$

Where Yi = the dependent Variable (E-Payment Utilization) or EPU.

 $\beta 0 = Constant.$

 $\beta 1...\beta n$ = Coefficient of the independent variables.

X1...Xn = Independent variables included in the study area.

εi refers to an Error terms involved in the study variables (Verbeek, 2008).

Interpretations and Discussions of the Model Result Based on Respondents

Interpretations of the Coefficients in the Model

In the model output, the effect of those variables on the Customer's E-Payment Utilization activities tends to categorize either in Rarely Users or in Frequent Users whereas the Middle Users were considered as the Base Line for both responses in the ordered logistic regression model.

The Effect of Demographic Related Factors that Influence the Customer's E-Payment Utilization Activities

With the higher years of E-payment using customer's education level, the more likely to be in the higher category (Frequently Users) of the Customer's E-Payment Utilization Activities which means that the more qualified E-payment using customer's, the more likely they develop or experienced the E-Payment Utilization Activities in the study area and statistically significant at 1% level of significance

The Effect of Institutional Related Factors that Influence the Customer's E-Payment Utilization Activities

The higher the network interruption occurred in the study area, the more likely to be in the lower category (Rarely Users) which means that with the higher network interruption that the branch encountered in its operation, the more likely customers are discouraged to the E-Payment Utilization Activities in the study area and statistically significant at 1% level of significance. With the higher satisfaction obtained from the branch's operation by E-payment using customer's, the more likely to be in the higher category (Frequently Users) of the Customer's E-Payment Utilization Activities which means that as the higher satisfaction obtained by E-payment using customer's, the more likely they are encouraged to the E-Payment Utilization Activities in the study area and statistically significant at 5% level of significance. With the higher cost reduction of E-payment using customer's, the more likely they tend to be in

Tesfaye Eresso GOFE, Ph.D & Dereje Regasa TULU, Ph.D

the higher category (Frequently Users) of the Customer's E-Payment Utilization Activities which means that as the E-payment using customer's cost is reduced highly, the more likely they are encouraged to the E-Payment Utilization Activities in the study area and statistically significant at 5% level of significance.

The Effect of Customers Related Factors that Influence their E-Payment Utilization Activities

With the higher E-Payment Using customers Perceived Risk in the study area, the more likely they tends to be in the lower category (Rarely Users) which means that with the higher customers perception of risk on the E-Payment Utilization Activities, the more likely they discouraged and statistically significant at 1% level of significance.

With the higher E-Payment Using customers Lack of Willingness to Use in the study area, the more likely they tends to be in the lower category (Rarely Users) which means that with the Lack of Willingness to Use E-Payment service, the more likely they are discouraged and statistically significant at 5% level of significance.

Conclusions

This study was conducted on the Determinants of Customers E-payment Utilization activities in the Commercial Bank of Ethiopia Nekemte town by employing both the descriptive and ordered logit model in order to identify the factors that determine Customer's E-payment Utilization activities by categorizing them as the Demographic, institutional and the Customers related factors.

Thus, the authors identified that Determinants of Customers E-payment Utilization activities were influenced positively by the Demographic related factor like; their Education and income level whereas the institutional related factor were negatively influenced by the Customers E-payment Utilization activities by the Network interruption and Service charge levied by the institution in the study area. On the other hand, the customer Satisfaction rendered by the institutional and cost reduction concern to its customers was positively influenced their E-payment Utilization activities in the town.

Recommendations

Based on the analyzed data and econometric output, the authors recommend that customer satisfaction and the cost reduction concern while using E-payment service are the most and best driving force that encourages Customers E-payment Utilization activities and enables them to use the service frequently in addition to their education and income level. Thus, the institution has to seriously focus on its improvement throughout its operation in the study area.

Furthermore, the problem of Network interruption and Service charge levied by the institution leads to discourage Customers E-payment Utilization activities or enables them to use the service rarely. So the institution or the branches has to deal with the concerned body in order to facilitate the smooth functioning of Customers E-payment Utilization activities in the study area.

Similarly, customer's perception towards the risk of using E-payment and their lack of willingness to use it enables them to use the service rarely. So the institution has to create a means through which it increases the customers trust either by giving orientation, advise or panel discussion with their E-payment using customers specially at service recruitment stage for the new customers in the study area.

REFERENCES

- Adeoti, O. and K. Osotimehin, (2012). Adoption of point of sale terminals in Nigeria: Assessment of consumers' level of satisfaction. *Research Journal of Finance and Accounting*, 3(1): 1-6
- Chian-Son, Y., (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research*, 13(2): 104
- Furst and D. Nolle, (2002). *Internet banking*: Developments and prospects. Working Paper from Office of the Comptroller of the Currency, Administration of National Banks, University of Califoria, Sn Diego, IA, JOLLLA, California
- Gardachew, W., (2010). Electronic -banking in Ethiopia: Practices, opportunities and Challenges. *Journal of Internet Banking and Commerce*, 15(2): 2-9
- Hamidinava, F. and M. Madhoushi, (2010). Evaluating the features of electronic payment systems in Iranian bank users' view. *International Review of Business Research Papers*, 6(6): 78-94
- Kamrul, H., (2009). *E-banking in Bangladesh*: The future of banking, School of business studies. MA Thesis, State University of Bangladesh
- Malak, J., (2007). *Readiness of the Palestinian banking sector in adopting the electronic banking system*: Exploratory study. MA Thesis, The Islamic University of Palestine
- Mugenda, O.M. and A.G. Mugenda, (2003). *Research methods*: Quantitative and qualitative approaches. Nairobi: African Centre for Technology Studies
- Nasri, W., (2011). Factors influencing the adoption of internet banking in Tunisia. *International Journal of Business and Management*, 6(8): 143-160. Available at: https://doi.org/10.5539/ijbm.v6n8p143
- Ozkan, S., G. Bindusara and R. Hackney, (2010). Facilitating the adoption of e-payment systems: Theoretical constructs and empirical analysis. *Journal of Enterprise Information Management*, 23(3): 305-325.Available at: https://doi.org/10.1108/17410391011036085
- Peter, M.O. and P.J. Babatunde, (2012). E-payment: Prospects and challenges in Nigerian public sector. *International Journal of Modern Engineering Research*, 5(2): 3104-3106
- Pindyck, R.S. and D.L. Rubinfeld, (1998). *Econometric models and economic forecasts*. 4th Edn., United Stated of America: The McGraw-Hill Companies
- Shaikh, M.A., (2014). Ethiopian banker's perception of electronic banking in Ethiopia–A Case of Adama City. *International Journal of Scientific and Research Publication*, 4(9)
- Turban, D., (2008). *Electronic commerce:* A managerial perspective. 4th Edn.: Prentice Hall. Senior Lecturer, University of Stirling
- Verbeek, M., (2008). A guide to modern econometrics, Wiley Vijverberg, W. 2011. Testingfor IIA with the Hausman-McFadden test. 2nd Edn., MarnoVerbeek Erasmus University Rotterdam

Watson, J., (2001). *How to determine a sample size*: Tip sheet #60. University Park, PA: Penn State Cooperative Extension

Windmeijer, F.A., (1995). *Goodness-of-fit measures in binary choice models*. Econometric Reviews, 14(1): 101-116.Available at: https://doi.org/10.1080/07474939508800306

Wondwossen, T. and G. Tsegai, (2005). *E-payment*: Challenges and opportunities in Ethiopia. Addis Ababa Ethiopia: Economic Commission for Africa