Contribution of Accessibility & Convenience as Adoption Tool of e-Banking in Ghana.

Edward Markwei Martey, Bernice Korkor Nartey Gligah

Abstract— **The aim of the study is to identify the determinants of adoption rate of e banking in Ghana. The data were collected with self-administered questionnaire and interview. The Questionnaires were distributed to only current account holders of commercial banks and who visit the bank at least twice in a week in the greater Accra region of Ghana and 310 out of 500 completed questionnaires were collected from the respondents. Descriptive analysis, mean, standard deviation, Cronbach's Alpha, Pearson correlation and regression analysis, were performed to analyze the data. The findings revealed that both dimensions: convenience and accessibility had a significant and positive relationship with adoption rate. The study suggested that Managements of commercial banks in Ghana should strive to introduce banking through constant communication of its benefit to clients.**

Keywords- **accessibility, convenience, adoption rate, banking**

I.   INTRODUCTION

The specific research objectives of the study are; to assess the relationship between convenience and adoption rate of e banking in Ghana and to examine the relationship between accessibility and adoption rate of e banking in Ghana.

The concept of electronic banking has been defined in many ways by different scholars. According to Daniel (1999) electronic banking is the delivering of banks' information and services to customers through platforms devices such as personal computer, mobile phone, desktop software, telephone or digital television by banks. Pikkarainen et al (2004) define internet banking as an "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments". Online banking is one of the cheapest delivery channels for banking services (Pikkarainen et al, 2004). Online banking saves time and money and minimizes errors by bank tellers (Jayawardhena and Foley, 2000).

The rate of technological improvement in Ghana requires banks to serve customers electronically (Wisdom 2012). The banking environment in Ghana is highly complex and competitive and needs information and communication technology to take centre stage in the operations of banks (Stevens, 2002). The banking industry in Ghana has benefited from evolving technology by the introduction of

Manuscript Received March 18, 2016.
  Edward Markwei Martey, Department of Marketing, Koforidua Polytechnic, Ghana
  Bernice Korkor Nartey Gligah, Department of Marketing, Koforidua Polytechnic, Ghana

Electronic banking (E-banking) systems which provide easy access to banking services. According to Bawa (2009)**,** the advancement of mobile technologies is an opportunity for banks to introduce new financial innovations.This study examines the determinants of e banking adoption in Ghana.

II. LITERATURE REVIEW

The Adoption Process (also known as the Diffusion of Innovation) describes the behaviour of consumers as they patronize new products and services. The individual categories of innovator, early adaptors, early majority, late majority and laggards. (Bourne, 1959).Ahmad and Ali Al-Zu'bi (2011) revealed that, the determinant of adoption of e-banking   are accessibility, convenience, security, privacy, content, design, speed, fees and charges

A. Factors of Adopting e-Banking

E-banking provides higher degree of convenience that enables customers to access internet banking at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Black et al, 2001). Gerrard and Cunningham (2003) also identified other factors of paramount importance in ensuring the success of e-banking, i.e. the ability of an innovation to meet users' needs using different feature availability on the web site. This leads to the second hypothesis of the study **H1**: convenience affects positively the adoption rate of e banking in Ghana.

Accessibility defines as the ability of users to access information and services from the web and dependents on many factors. These include the content format; the user's hardware, software and settings; internet connections; the environmental conditions and the user's abilities and disabilities (Hackett and Parmanto, 2009).The techniques and approaches that create more accessible such as download speed and discoverability (Hackett and Parmanto, 2009). This leads to the first hypothesis of the study**H2**: Accessibility affects positively the adoption rate of e banking in Ghana.
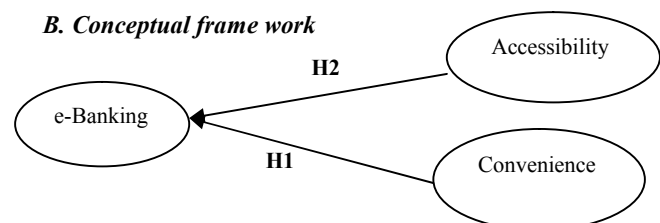
B. Conceptual frame work

Fig 1 Accessibility and Convenience as adoption tool of e banking

III. METHODOLOGY

Both primary and secondary data were used in the study. The study adopted purposive sampling technique to select Banks whereas convenience sampling techniques were employed to select e banking users' in Ghana .The suitable sampling technique for this study is non-probability technique using convenience sampling. This is due to the difficulty in determining the specific list of customers**.**
Data were collected through the use of a structured questionnaire. Likert scales anchored by strongly disagree (1) and strongly agree (5) were used in the questionnaire.

IV. ANALYSIS AND RESULTS

A. Demographic information

Table 1: Demographic information

Variables	Frequency	Percentage
Gender		
male	131	42.2
female	179	57.8
Total	310	100.0
Age		
18-28	49	15.8
29-39	156	50.3
40-59	105	33.9
Total	310	100
Banks		
GCB	57	18.4
SG SSB	54	17.4
UMB	56	18.1
ECOBANK	92	29.7
HFC	51	16.4
Total	310	100

No. of Usage in a week

Below 5 times	63	46
Between 6 to 10	101	44
More than 11	146	10
Total	310	100

B. Survey results, 2014

A detailed demographic analysis of respondents is presented in Table 1. Personal and face-to-face interviews of clients waiting for their services from the selected banks in Greater Accra region of Ghana. Questionnaires were distributed to clients who had visited the banks at least twice in the past week.310 completed questionnaires were collected from the respondents out of 500 questionnaires distribute. Among the sample data: 57.8% respondents are female. This means more females visit banks in Greater Accra region.Also, 50.3% are in the 20 – 39 age groups, this represent the modal age. Besides, 29.7% respondents are clients of Ecobank, these shows that Ecobank is the highest visited banks in Greater Accra region

Table 2: Mean, Standard Deviation, Cronbach's Alpha and Pearson Correlation (N=310)

	Mean	SD	**Alpha**	CV	AS	AD
Convenience	3.87	0.82	0.88	1		
Accessibility	4.07	0.79	0.87	0.76**	1	
Adoption	4.88	0,66	0.79	0.84**	0.77	1

** Significant at Level of Significance 0.01 (Two Tailed)

Table 2 shows the values of mean, standard deviation, Cronbach's Alpha and Pearson correlation for convenience, accessibility and adoption based on the data collected from 310 respondents. Convenience mean value of 310 respondents is 3.87 which is close to 4. This means that respondents' average response was "Agree". While the standard deviation for the responses was 0.82 and reliability was 0.88 which shows that the instrument is highly reliable. In the case of accessibility the mean of the responses of 310 respondents was 4.07 which again close to 4. It shows that the mean average response of the respondents was "Agree". The variation from the mean in these responses was on average 0.79 and Cronbach's Alpha is 0.87 which also indicates high reliability of the instrument. And the adoption rate indicates a mean average responses of the 310 respondents was 4.88 which is near to 5 indicating that respondents" collective response is "Strongly Agree" regarding the adoption. While in this case the variation from the mean in the responses was on average 0.66 and Alpha was 0.79 indicating the reliability of the survey regarding adoption rate to be 79%.
Table 3 also indicates that there is a strong positive relationship between convenience and adoption as p value is less than 0.01 this concludes that the study supports H1. This means that convenience has a significant relationship with adoption rate. It is also evident from Table 3 that accessibility has a strong positive association with adoption rate as p value is less than 0.01 so it can be concluded that study supports H2 which states that accessibility has a strong association with adoption rate.

Table 3: Regression Statistics

Model	R	R Squared	Std. Error of the Estimate
	0.96	0.91	0.10

a. predictors: (Constant), convenience, accessibility

Table 3 shows R= 0.95 shows 95% variation in convenience, accessibility, and adoption rate. R square is the coefficient of determination which shows 91% total variation in adoption rate due to convenience and accessibility .The power of the given model is obvious as adoption rate is strongly explained by convenience and accessibility i.e. 91%.

Table 4: ANOVA result model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.391	6	1.807	199.181	.000(a)
	Residual	161.489	196	.734		
	Total	166.880	199			

a Predictors: (Constant), convenience and accessibility
b Dependent adoption rate

Table 4 of ANOVA shows significance level while the P value is less than significance level which is 0.05 so it is accepted that convenience and accessibility has significant association with adoption rate.

Table 5: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.000	1.768		1.131	.000
		.500	1.118	0.22	.447	.000

a. Dependent Variable: adoption rate

Adoption rate = 0.22 + 2.0 convenience
This Model indicates that for every 1 unit change in convenience, adoption rate will be changed by 2 units in the same direction. And if the convenience is reduced to zero the adoption rate will be 0.22 units. The results of data analysis clearly indicate that adoption rate have a strong positive association with convenience. This is in line with the findings of Black et al, 2001: Gerrard and Cunningham 2003)

Adoption rate = 0.22 + 0. 5 accessibility
This Model indicates that 1 unit increase in accessibility level will increase the adoption rate by 0.5 units. While if the

value of accessibility is decreased to zero the value of adoption rate will be 0.22. The results of data analysis clearly indicate that adoption rate have a strong positive association with accessibility. The finding is supported by Godwin-Jones 2001; Hackett and Parmanto, 2009). Thus it is concluded that adoption rate can be enhanced with the enhancement in convenience and accessibility.

Table 6: Collinearity Statistics

	Tolerance	VIF
Convenience	0.27	3.63
Accessibility	0.29	3.63

Collinearity is also checked for the data, as tolerance value is less than 6 and VIF is less than 10 which confirms no multi-collinearity in the data exits as shown in table 6.

V. PRACTICAL IMPLICATIONS
Adoption of e banking is an issue of time. Managers all over the world should actively promote and improve convenience and accessibility of ATM, online payment, electronic checking of account and a few to enhance e banking adoption. These efforts are more likely to be fruitful if these practices are accompanied by communication of benefit of e banking to clients.

VI. LIMITATIONS
The paper is intended to study the determinants of adoption rate. The paper mainly focuses on banking industry. Therefore the findings are limited to banking sector. Moreover the researcher did not have adequate time and resources to study the other determinants of adoption rate; finally, it is obvious that researchers didn't have the access to top management which could to identify the determinants of adoption rate in e banking.

VII. CONCLUSION
From the study, the adoption of e banking increases organizations profitability through the enhancement of transactions processes delivered by banks in the area of value and speed rate which then attract customers, reduces cost of doing business and increasing market share.

REFERENCES

[1] Ahmad and Ali Al-Zu'bi (2011) E-banking Functionality and Outcomes of Customer Satisfaction: An Empirical Investigation International Journal of Marketing Studies, Vol. 3, No.1

[2] Daniel, E. (1999) Provision of electronic banking in the UK and the Republic of Ireland, International Journal of Bank Marketing, vol.17(2), pp.72-82

[3] Davis, F.D. (1989). 'Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, Vol. 13 No. 3, pp. 319-39

[4] Gerrard, P., and Cunningham, J.B. (2003). The diffusion of Internet banking among Singapore consumers.International Journal of Bank Marketing, Vol. 21 No. 1, pp. 16-28.

[5] Hackett, S & Parmanto, B. (2009). Homepage not enough when evaluating web site accessibility. InternetResearch, 19, (1),78 – 87.

[6] Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., Pahnila, S.,(200), "Consumer acceptance of online banking: an extension of the technology acceptance model", Internet Research, Vol. 14, No. 3, pp. 224-235.

[7] Stevens, R.E., Carter, P.S., Martin, R.T., and Cogshell, D.(1986). A comparative analysis of users and non-users of automatic teller machines. Journal of Retail Banking, Vol. 8 Nos. 1 and 2, pp. 71-8.

[8] Wisdom, K.(2012) The Impact of Electronic Banking on Service Delivery to Customers of Ghana Commercial Bank Limited. A Study of Ghana Commercial Bank Ltd, Ho Polytechnic Branch, Ph.D. Thesis, Institute of Distance Learning, Kwame Nkrumah University of Science and Technology