

FACTORS AFFECTING THE DECISION TO USE E - BANKING SERVICES OF PERSONAL CUSTOMERS AT AGRIBANK - HAIPHONG BRANCH

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ABSTRACT: In the development trend of the digital banking model, Agribank has continuously improved service quality to launch many useful products for customers. Many of Agribank's e-banking products and services, after being put into application, actually become Agribank's own branded products and services that are trusted by a considerably large number of customers. The study combines expert methods with quantitative methods applied to a research sample of 120 individual customers who have registered to use Agribank's e-banking services in the first quarter of 2023 in Hai Phong. Results from regression analysis using SPSS software have shown that there are 3 factor groups: fee, security, and composite factors including trust, easy of use, usefulness, development of e-banking platforms. Based on these results, the author gives management implications to attract individual customers to use e-banking services at Agribank - Hai Phong Branch.

Key words: E-banking, Agribank, Individual customers.

CÁC NHÂN TỐ ẢNH HƯỞNG ĐẾN QUYẾT ĐỊNH SỬ DỤNG DỊCH VỤ NGÂN HÀNG ĐIỆN TỬ CỦA CÁC KHÁCH HÀNG CÁ NHÂN TẠI NGÂN HÀNG AGRIBANK - CHI NHÁNH HẢI PHÒNG

TÓM TẮT: Trong xu thế phát triển của mô hình ngân hàng số, ngân hàng Agribank đã không ngừng đổi mới nâng cao chất lượng dịch vụ và cho ra đời nhiều sản phẩm tiện ích cho khách hàng. Nhiều sản phẩm dịch vụ ngân hàng điện tử của Agribank sau khi được đưa vào triển khai ứng dụng trên thực tế đã trở thành những sản phẩm dịch vụ mang thương hiệu riêng của Agribank, được đông đảo khách hàng tin dùng. Nghiên cứu sử dụng phương pháp chuyên gia kết hợp với phương pháp định lượng và áp dụng cho mẫu nghiên cứu 120 khách hàng cá nhân đã đăng ký sử dụng dịch

vụ ngân hàng điện tử của Agribank vào quý I năm 2023 tại Hải Phòng. Kết quả từ phân tích hồi quy sử dụng phần mềm SPSS đã chỉ ra rằng có 3 nhóm nhân tố: phí, an ninh, và nhóm các nhân tố tổng hợp bao gồm tin tưởng, dễ sử dụng, hữu dụng, phát triển ngân hàng điện tử. Từ đó, tác giả đưa ra các hàm ý quản trị nhằm thu hút khách hàng cá nhân sử dụng dịch vụ ngân hàng điện tử tại ngân hàng Agribank - Chi nhánh Hải Phòng.

Từ khóa: ngân hàng điện tử, Agribank, khách hàng cá nhân.

1. INTRODUCTION

The Industrial Revolution 4.0 has created a wave of application of them in all fields, the most prominent of which is e-commerce. The success of e-commerce, especially transaction activities between customers, products and service providers, have formed a widespread application trend in all industries. A clear influence of the development of information technology and e-commerce systems is e-banking services. By using e-banking, customers can make transactions with the bank conveniently and easily, transfer money, pay bills, query account information, make online purchases from a computer or any other device hand held with internet connection. Moreover, E-banks create an alternative transaction channel, reducing costs for the bank as well as customers, improving the efficiency of capital turnover. Thus, the biggest benefit of e-banking is the convenience and minimizing the cost as well as the time of performing banking transactions. Therefore, e-banking should be encouraged by making a significant contribution to the non-cash economy.

Considered as the lifeblood of the economy, the banking industry suffers the first impact when the economy is in recession. Domestic banks are currently struggling to operate after the current revenue of banks is increasingly difficult, due to bad debts and the not-so-bright state of the economy as well as competitive pressure from banks with foreign investment is increasing. Improving the ability to meet the diversification of products and services as well as service delivery methods through e-banking services in order to create a value-added platform for customers is the key to helping the bank overcome the difficult period. Moreover, the population of Vietnam is more than 90 million while the number of customers accessing e-banking services is not much, the population is young (the golden age of population), so the possibility access to information technology and rapidly increasing IT infrastructure are opportunities for banks to invest more strongly and comprehensively in e-banking services.

Recognizing the importance of e-banking, Agribank offers a strategy to

develop products and services that integrates high technology content, increasing utilities for all selected customer segments based on public technologies, information technologies and top quality services. However, Agribank's ability to develop e-banking services is not really comprehensive to exploit its full potential. To be able to bring Agribank's e-banking services to Hai Phong customers in a competitive context with other banks, it is necessary to identify the factors that have a decisive influence on the use of e-banking by customers.

2. RESEARCH CONTENT

2.1 Research overview, models and hypotheses

On the basis of research theories combined with a research overview, with the inheritance of variables from research models in practice, the author builds a research hypothesis in then context of specific characteristics of Agribank Hai Phong.

The first is security (AN)

Security is understood as the customer's belief in the safety of the network system, the security of personal information and the bank's ability to prevent risks when using e-banking services. Stemming from the psychology of customers worried about losing money from ATM cards, being scammed to get personal information to get money has increased recently as well as the level of security that the bank provides such as

security incidents. Information, holes in providing authentication codes have never been the strengths of Vietnam banks, which are obstacles to the development of e-banking. Research by Shorabi et al (2013) indicates that security is a factor affecting the decision to use e-banking services.

H1: Security has a positive influence on the decision to use e-banking services at Agribank Hai Phong.

The second is trust (TT)

E-banking brings many conveniences as well as low costs, users of e-banking services can perform services at any time, at any place. However, for customers to use this service needs trust. The lack of trust in partners, Internet, banks due to past incidents such as loss of money in online transactions by partners, stolen personal information and as a result loss of money in the account card...is a big barrier for the development of e-banking services. Trust depends on the individual, culture, and social context. Research by Shorabi et al (2013) shows that trust is the strongest factor influencing the decision to use e-banking services of customers.

H2: Trust has a positive influence on the decision to use e-banking services at Agribank Hai Phong.

The third is fee (PI)

Fee is the cost of equipment and service. Fee is one of the important factors affecting the use of e-banking services when the cost is lower than

traditional banking services. The above studies also show that customers can only accept a reasonable fee, otherwise, they will return to using traditional banking services and the costs associated with this service are always the same, biggest barriers for customers. This is also a factor that should be noted and included in the proposed research model. With a long-term strategy, the bank should not initially put the profit margin on top of that, but it needs to offer a low fee, possibly lower than the cost that the bank spends. The revenue from the account balance as well as the reduced costs of traditional banks such as staff costs, space costs, paper work costs will be offset.

H3: Fee has a negative effect on the decision to use e-banking services at Agribank Hai Phong.

The fourth is perceived ease of use (SD)

Perceived ease of use is understood as the degree to which customers believe that an e-banking product or service can be used without any effort (Davis, 1989; Grandson and Pearson, 2004). Ease of use is a factor affecting the development of e-banking services. Ease of use of e-banking services not only helps customers to easily access services, saving time and costs, but also increases customers' confidence in the safety of e-banking services. Therefore, one of the important criteria that banks provide services is towarded the simplicity of products and services of e-banking. The simpler and more

understandable the questions are easier to receive e-banking services for customers. Many studies such as technology acceptance model (TAM) of Davis (1989); study on development of e-commerce services by Grandon and Pearson (2004) pointed out that perceived ease of use is a factor affecting the decision to use e-banking services.

H4: Perceived ease of use has a positive influence on the decision to use e-banking services at Agribank Hai Phong.

The fifth is Perceived Useful (HD)

Perceived usefulness is understood as the degree to which customers believe that using e-banking products and services will make their work easier and more useful (Davis, 1989; Grandon and Pearson, 2004). Therefore, service quality characteristics such as transaction time, flexibility and functionality are variables that affect customer perceived usefulness.

H5: Perceived usefulness has a positive influence on the decision to use e-banking services at Agribank Hai Phong.

The sixth is the development of e-banking (PT)

H6: E-banking development has a positive influence on the decision to use e-banking services at Agribank Hai Phong.

Summarizing the influencing factors analyzed above, the author proposes a research model:

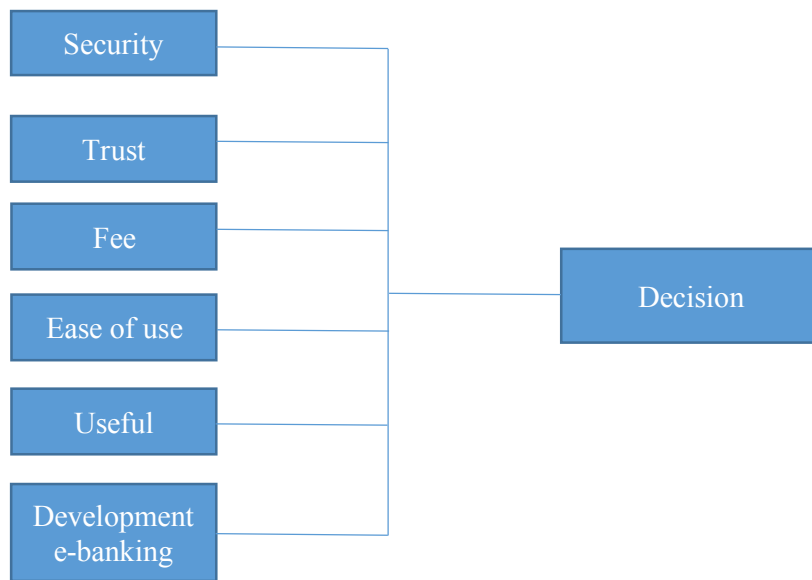


Figure 1: Research model of the author

(Source: Author's Compilation)

2.2 Method research

The study was carried out according to statistical, comparative and analytical methods based on primary data: Collected based on the survey of 120 individual customers using e-banking services at Agribank Hai Phong since October 2022 to March 2023. The study uses quantitative research techniques to approach the model. The objective of the study is to identify and test the factors affecting the decision to use e-banking services of individual

customers at Agribank Hai Phong, using SPSS software tool to synthesize and analyze data (Hoang Trong và Chu Nguyen Mong Ngoc 2008).

2.3 Research results

(1) Analyze the reliability of Cronbach's Alpha scale

Table 1: Security scale group

Reliability Statistics	
Cronbach's Alpha	N of Items
.935	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
AN1	16.06	14.508	.848	.917
AN2	16.13	15.368	.826	.921

AN3	16.20	15.481	.806	.924
AN4	16.15	14.899	.844	.917
AN5	16.31	15.014	.814	.923

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$, so the scales of the security factor are reliable.

Table 2: Trust scales group

Reliability Statistics	
Cronbach's Alpha	N of Items
.968	7

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
TT1	23.93	29.018	.933	.959
TT2	23.85	28.444	.936	.959
TT3	23.90	29.296	.907	.961
TT4	23.89	28.987	.894	.962
TT5	24.02	29.772	.772	.971
TT6	23.85	28.740	.878	.963
TT7	23.88	28.496	.880	.963

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$, so the scales of the trust factor are reliable.

Table 3: Fee scales group

Reliability Statistics	
Cronbach's Alpha	N of Items
.964	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PI1	18.83	30.212	.848	.962

PI2	18.89	28.355	.894	.956
PI3	18.88	27.375	.935	.952
PI4	18.90	27.587	.877	.959
PI5	18.80	28.923	.891	.957
PI6	18.84	28.526	.878	.958

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$, so the scales of the fee factor are reliable.

Table 4: Ease of use groups

Reliability Statistics	
Cronbach's Alpha	N of Items
.956	4

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SD1	11.87	8.050	.876	.947
SD2	11.82	7.672	.902	.939
SD3	11.84	7.748	.885	.944
SD4	11.76	7.251	.909	.938

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$, so the scales of the ease of use factor are reliable.

Table 5: Useful scales group

Reliability Statistics	
Cronbach's Alpha	N of Items
.933	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
HD1	7.82	3.945	.852	.914
HD2	7.84	3.566	.853	.911
HD3	7.82	3.467	.888	.882

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$, so the scales of the useful factor are reliable.

Table 6: Development e-banking scale groups

Reliability Statistics	
Cronbach's Alpha	N of Items
.906	4

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PT1	11.83	6.937	.820	.866
PT2	11.76	6.751	.849	.856
PT3	11.79	7.579	.785	.881
PT4	11.84	7.452	.706	.907

(Source: Author's summary from SPSS)

The results of Cronbach's Alpha index $> 0,6$ and Corrected item-total correlation values are all greater than $0,3$,

so the scales of the development e-banking scale factor are reliable.

(2) EFA exploratory factor analysis

Factors	Observed variables	Variable type
Synthetic	PT2, PT1, SD3, HD3, PT3, SD1, SD4, HD1, HD2, SD2, TT7, PT4, TT5	Independent
Security	AN2, AN1, AN5, AN4, AN3	Independent
Fee	PI3, PI2, PI4, PI1, PI5, PI6	Independent
Y	Decision	Dependent

(Source: Author's summary from SPSS)

Results after removing bad variables (TT2, TT1, TT6, TT3, TT4) we get the following results:

Table 7: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.938
Bartlett's Test of Sphericity	Approx. Chi-Square	2929.252
	Df	325
	Sig.	.000

(Source: Author's summary from SPSS)

The KMO coefficient is 0,938, with a value in the range from 0,5 to 1. The closer this value is to 1, the more suitable the factor analysis is for the research data

set. Bartlett's number has sig 0,000<0,05; For Bartlett's test to be significant, the sig Bartlett's Test <0,05 shows that there is a correlation between the observed variables.

Table 8: 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	17.754	68.284	68.284	17.754	68.284	68.284	8.245	31.711	31.711
2	1.840	7.079	75.363	1.840	7.079	75.363	6.544	25.171	56.882
3	1.232	4.740	80.103	1.232	4.740	80.103	6.038	23.221	80.103

Extraction Method: Principal Component Analysis.

(Source: Author's summary from SPSS)

Eigenvalues equal 17,754 greater than 1, total variance extracted is 68,284% > 50%, showing that EFA is appropriate. The results show that the scales are arranged into 4 groups, explaining 80,103% of the variation of all input variables.

(3) Linear regression analysis

The results of the regression model of the dependent variable Y on 3 factors after adjustment are as follows:

Table 9: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.672 ^a	.710	.718	.882	.710	2.154	3	84	.099	1.256

a. Predictors: (Constant), Fee, Security, Composite factors

b. Dependent Variable: Y

(Source: Author's summary from SPSS)

The adjusted R2 value of 0,718 shows that the independent variable included in the regression affects 71,8% of the change of the dependent variable, the

remaining 28,2% is due to variables outside the model and random error. The Durbin-Watson coefficient is 1,256, in the range from 1,5 to 2,5, so no first-order sequence autocorrelation occurs.

Table 10: Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.636	.094		38.679	.000		
	Composite factors	-.168	.095	-.187	-1.779	.009	1.000	1.000
	Security	.114	.095	.126	-1.202	.003	1.000	1.000
	Fee	-.129	.095	-.143	1.362	.007	1.000	1.000
a. Dependent Variable: Y								

(Source: Author's summary from SPSS)

The VIF coefficients of the independent variables are all less than 2, so there is no multicollinearity. Sig test t-regression coefficients of the dependent variables are all less than 0,1, so all three groups of these factors are significant to explain for the dependent variable. Normalized regression equation: $Y = -0.187 TH + 0.126 AN - 0.143 PT$

3. CONCLUSIONS AND MANAGEMENT IMPLICATION

3.1 Conclusions

The research results have shown 3 factors affecting the decision to use e-banking services of individual customers at Agribank Hai Phong, including: composite factors, securities and fees, in which the fee factor is the most important influence. The research results help Agribank Hai Phong's Board of Directors realizes the influence and impact degree of each factor on individual customers' decisions to use e-banking services. Through that, Agribank Hai Phong's Leaders have

measures to monitor, manage and adjust factors affecting the decision to use e-banking services at Agribank Hai Phong. At the same time, the results of this study also help Board of Directors determines the factors that need to be focused on investing in order to increase the number of customers using e-banking services at Agribank in Hai Phong to improve competitiveness, compared to competitors in the same area.

3.2 Management implication

In order to increase the number of users of e-banking services at Agribank Hai Phong and make this service widely available to customers, through the research results, the Board of Directors of Agribank Hai Phong branch should do the following:

Firstly, fee is the factor that customers are always interested in when using e-banking services. In the context of fierce competition for e-banking products of other banks, Agribank should attend to improve service fees. While competitors

are giving customers free use of e-banking services, even interbanks, Agribank should also change towards free e-banking services for customers so that they can orient customers who have accounts at Agribank to use Agribank's e-banking services.

Secondly, banking transactions mainly involve money, so when customers make transactions directly at the counter or via e-banking, they all require the most safety, security and accuracy. Therefore, Agribank Hai Phong branch needs to have a policy to protect customers from risks when conducting e-banking transactions such as ensuring information security, preventing the possibility of account theft as well as regularly recommending users to know how to protect yourself.

Thirdly, in addition, the bank also pays attention to the group of composite factors such as trust, usefulness, ease of use and development of e-banking. Agribank's e-banking bank needs to design an interface that makes easy for users to access and grasp the functions. Agribank needs to research and design the location of features that customers often prioritize to be more intuitive and easy to access, thereby, helping customers save time in using necessary features. Currently, e-banking services are provided by many banks. All banks try to improve their services to bring the highest benefits to customers. In that difficult and competitive context, Agribank should try to improve services, bring released versions that are easy to use on computers, phones, more and more features. High utility and easy to use

interface, Agribank should issue a transaction manual on Agribank online so that customers can use it more easily. Show support phone number on e-banking service screen, currently, the phone number supports the whole system of the Bank. Agribank specializes in e-banking services that are always overloaded. Furthermore, Agribank should complete and design the website for ease of use, complete information and updated continuously. Words used must be clear and easy to understand for customers to grasp get the essential information in the shortest time.

In addition, besides the utility of payment for electricity, water, airfare, phone top-up, etc... Agribank needs to actively connect with online sales systems, especially essential goods supply services to provide online shopping and mobile payment services to consumers. This will lead customers to use Agribank's e-banking service in daily life.

REFERENCES

1. Davis et al. (1989). User acceptance of computer technology: A comparison of two theoretical models, *Management Science*, 35, 982-1003.
2. Grandson & Pearson (2004), *Research on acceptance and application of e-commerce in enterprises*.
3. Hoàng Trọng và Chu Nguyễn Mộng Ngọc (2008), *Analysis of research data with SPSS*, Hong Duc Publishing House.
4. Shohrabi, M et al (2013), *Critical success factors for the adoption of e-banking in Malaysia*, International Arab Journal of e-Technology Vol.3, No2, pp 76-82.