

RECOMMENDATIONS DEVELOPING THE INTERNET BANKING SERVICES OF COMMERCIAL BANKS IN HO CHI MINH CITY

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ABSTRACT: *Over the past years, the banking and finance sector in Vietnam has seen strong changes. The scale and network of commercial banks have been expanded more quickly. The number of customers using internet banking services has also increased. Besides, the strong penetration of information and communication technologies into the finance and banking sector has recently created new hi-tech products and services such as payment services by Internet. The benefits of electronic banking are enormous thanks to fast, accurate and secure. Along with the trend of using ATM cards, in the last few years, Internet banking has been developed as a financial and banking channel for all types of individuals and businesses. Internet banking services are helping customers own financial resources anytime, anywhere. Moreover, the research results showed that there were 300 commercial bank customers who interviewed and answered about 14 questions. The Data collected from 05/06/2016 to 15/06/2017 in Ho Chi Minh City. The researcher had analyzed Cronbach's alpha, KMO test, the result of KMO analysis used for multiple regression analysis. The research results were processed from SPSS 20.0 software. Finally, the researcher has recommendations supporting the sustainable development of internet banking services at commercial banks in Ho Chi Minh City.*

KEYWORDS: banking, internet, commercial bank, online, LHU.

INTRODUCTION

The main services of commercial banks usually provide to customers through online banking are: account management, money transfer, bill payment, credit card information, loan application, trade finance, payroll via account... However, due to the habit of using cash as well as investment for electronic payment is not synchronous and effective, still reveals many difficulties and limitations. Therefore, the introduction of recommendations is to remove restrictions to support the development of Internet banking is a necessary and urgent issue. In the period of 2010 - 2016, commercial banks have the legal foundation; payment via internet banking in the population has developed strongly. Commercial banks in Vietnam have also gradually paid attention to investment in infrastructure construction. And develop Internet banking services to attract customers. Besides, Vietnamese commercial banks/branches such as HDBank, ACB, Techcombank, VIB, ANZ, HSBC, etc. are followed by commercial banks. The state holds dominant shares such as VietcomBank, VietinBank, BIDV, AgriBank...

This research shows that the demand for money transfer of Vietnamese consumers accounts for 45% of the population, which is also the basis for the application of money transfer via Internet banking to have the opportunity to develop in the coming time. It is impossible not to mention the factors supporting the development of payment via Internet banking in the population such as technology, human resources, and risk management. And marketing, communications of specific follows: The technology: Technology is the

foundation and a prerequisite for the development of Internet banking. The State Bank of Vietnam (SBV) operates technology to support payment channels such as inter-bank electronic clearing and clearing via SBV's deposit system. Risk management: Commercial banks are very interested in risk work including risk management in card activity and risk management in electronic payment. Risk management in bank operations includes risk identification, measurement and assessment, and its objective is to minimize negative effects risks can have on the financial result and capital of a bank. Banks are therefore required to form a special organizational unit in charge of risk management. Also, they are required to prescribe procedures for risk identification, measurement and assessment, as well as procedures for risk management. The Human Resources: Most of commercial banks have now focused on training human resources for the strategy of developing e-banking services. Most of the banks in the system are now well aware of Internet banking and the benefits that this service provides, so they have been building customer service centers, building service centers card to develop payment, transfer money through account.

The above mentioned things and combination with the practical requirements of the management, the researcher had boldly chosen the theme: "***Recommendations developing the internet banking services of commercial banks in Ho Chi Minh City***". This paper finds out the various factors affecting the sustainable development of internet banking services at commercial banks in Ho Chi Minh City and the researcher has recommendations in order to enhance the sustainable development of internet banking services at commercial banks for the future.

LITERATURE REVIEW

Cronin, Mary J. (1997). Online banking, also known as internet banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way customers accessed banking services.

Hussein, English, John and Adewunmi, Paul (2014). Internet banking is to access a financial institution's online banking facility, a customer with internet access will need to register with the institution for the service, and set up a password and other credentials for customer verification. The credentials for online banking is normally not the same as for telephone or mobile banking. Financial institutions now routinely allocate customers numbers, whether or not customers have indicated an intention to access their online banking facility. Customer numbers are normally not the same as account numbers, because a number of customer accounts can be linked to the one customer number. Technically, the customer number can be linked to any account with the financial institution that the customer controls, though the financial institution may limit the range of accounts that may be accessed to, say, cheque, savings, loan, credit card and similar accounts.

Cronin, Mary J. (1997). The customer visits the financial institution's secure website, and enters the online banking facility using the customer number and credentials previously set up. The types of financial transactions which a customer may transact through online banking are determined by the financial institution, but usually includes obtaining account balances, a

list of the recent transactions, electronic bill payments and funds transfers between a customer's or another's accounts. Most banks also enable a customer to download copies of bank statements, which can be printed at the customer's premises (some banks charge a fee for mailing hard copies of bank statements). Some banks also enable customers to download transactions directly into the customer's accounting software. The facility may also enable the customer to order a cheque book, statements, report loss of credit cards, stop payment on a cheque, advise change of address and other routine actions.

Today, many banks are internet-only institutions. These "virtual banks" have lower overhead costs than their brick-and-mortar counterparts. In the United States, many online banks are insured by the Federal Deposit Insurance Corporation (FDIC) and can offer the same level of protection for the customers' funds as traditional banks. Internet Banking (also known as Online banking or E-banking) is a service that banks provide to customers through the Internet to conduct inquiries about account information, transfer money, pay bills, open Online accounts, credit card registration, online loan application, etc. on the Bank's website at any Internet access point and at any time without having to visit the bank's counter groin.

RESEARCH METHOD

The research method of the paper consists of two phases: Phase one is a preliminary study and the second phase is a formal and more comprehensive study. The study is done by qualitative method. The research will be done by formal quantitative methods. Unit of analysis is a customer of commercial banks. Study subjects are customers of commercial banks in Ho Chi Minh City. The preliminary study for customers was conducted in July 2016, using qualitative methods to interview 30 customers of commercial banks in Ho Chi Minh City in order to examine the content and meaning of the words used in the scale. Following this, the formal study was conducted in November 2016, using qualitative methods to interview 300 customers of commercial banks to examine the content and meaning of the words used in the scale.

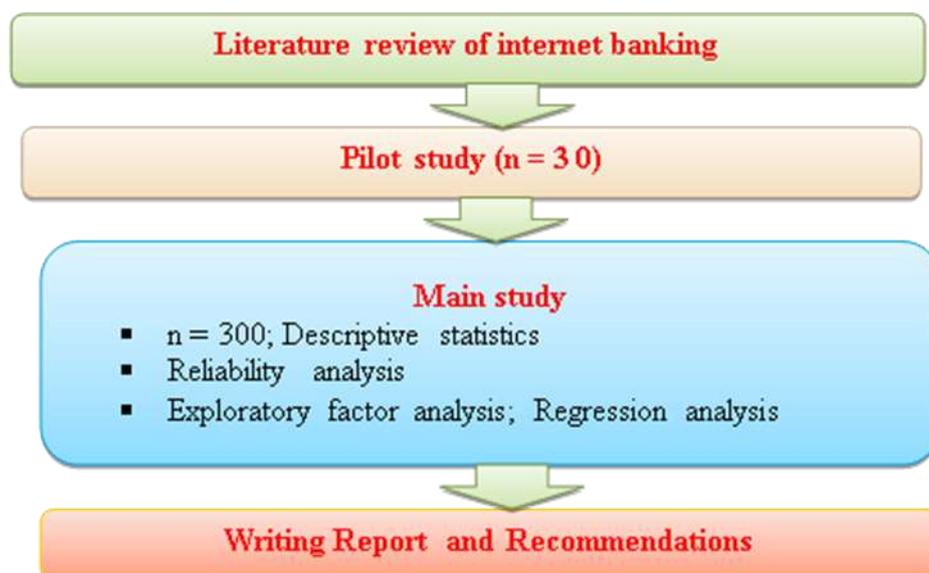


Figure 1: Research process for customers of commercial banks

Population and Sampling

Population: Total number of customers of commercial banks in Ho Chi Minh City at the time of the study was more than 500.000 customers. After completing the preliminary investigations, formal research is done by using quantitative methods questionnaire survey of 300 customers: the reason tested measurement models, and model and test research hypotheses.

Sampling: The concepts of scale in this study have been tested in many countries, especially developing countries. In Vietnam there are few topics of this scale that are applicable, so the preliminary study plays a useful role in controlling the content and meaning of the words and terms, and if necessary to help adjust the scales to fit the current research environment of commercial banks in Ho Chi Minh City.

This study further translated versions of this application on a questionnaire survey to survey. The questionnaire is presented as follows:

The preliminary study was conducted through qualitative methods using in-depth interviews with 30 customers related to commercial banks in Ho Chi Minh City independently to test the content and meaning of the words and terms used in this scale to make sure they are appropriate and easy to understand.

Preliminary results of the study help to remove restrictions and unnecessary errors, and thus the official questionnaires are better phrased when used for formal quantitative research. The customers were given in-depth interviews about the meaning and content of the scale of the customer of commercial banks in Ho Chi Minh City. The end result is that all customers understood the content and meaning of every sentence of the scale. Therefore, this scale was then used in the formal research. 300 customers were given in-depth interviews about the meaning and content of the scale of the customer of commercial banks in Ho Chi Minh City. The end result is that all customers understood the content and meaning of every sentence of the scale. Therefore, this scale was then used in the formal research.

Commercial bank customers' responses measured through an adapted questionnaire on a 5-point Likert scale: Conventions: 1: Completely disagree, 2: Disagree, 3: Normal; 4: Agree; 5: completely agree. Research Data collected were tested by the reliability index (excluding variables with correlation coefficients lower < 0.30 and variable coefficient Cronbach's alpha < 0.60), factor analysis explored (remove the variable low load factor < 0.50). The hypothesis was tested through multiple regression analysis with linear enter method and the researcher's collecting data and processed by SPSS 20.0 version.

RESEARCH RESULTS**Table 1: Descriptive Statistics and Cronbach's Alpha for the various factors affecting the internet banking services of commercial banks**

No.	Quality services and technology (QST)	Mean	Std. Deviation	Cronbach's alpha
QST1	Customers of commercial banks are easy of opening an account, availability of ATM 24 hours and the use of a secure website.	3.1825	.96749	0.916
QST2	The technology of commercial banks appropriate range of service offered, Internet banking facility is modern	2.9658	1.03136	
QST3	Commercial banks have provision of fast and efficient service and security of a customer's financial information	3.2243	.96061	
QST4	Commercial banks have attractiveness of bank building and proximity to home	3.0228	.93258	
QST5	Commercial banks have several branches and influential marketing online	3.0646	1.05190	
QST6	Commercial banks have ATM of many locations	3.2091	.96404	
QST7	Commercial banks increasingly operate websites through customers' need to conduct a range of transactions.	3.0000	1.09475	
No.	Risk management and human resources (RHR)	Mean	Std. Deviation	Cronbach's alpha
RHR1	Commercial banks have low foreign exchange, professionalism of bank staffs	2.3384	1.27345	0.773
RHR2	Commercial banks have higher returns (interest) on savings to guarantee the confidentiality of data, as well as the integrity of the system and the data	2.9011	1.30388	
RHR3	Commercial banks have confidentiality savings, low service charges.	2.6046	1.23695	
RHR4	Commercial banks have career development program for Internet banking and good risk management in electronic payment	2.5779	1.08451	
RHR5	Commercial banks have financial stability of the bank, pleasant bank atmosphere	2.3270	1.14231	
No.	The internet banking services of commercial banks (IBS)	Mean	Std. Deviation	Cronbach's alpha
IBS1	Risk management and human resources affecting IBS	3.2776	.61389	0.535
IBS2	Quality Services and technology affecting IBS	3.2928	.73218	

(Source: The researcher's collecting data and SPSS 20.0)

Table 1 showed that all of factors had Cronbach's alpha that are high 5.0. Besides, table 1 showed that the Cronbach's alpha coefficient if the removal variables is more than 0.6. In addition, the correlation coefficient of the total variations is more than 0.3. Besides, the mean

value is around 3.0 and Std. Deviation is around 1.0. This paper used 5-point Likert scale: Conventions: 1: Completely disagree, 2: Disagree, 3: Normal; 4: Agree; 5: completely agree. In addition, there were 300 commercial bank customers who interviewed and answered about 14 questions but 263 samples processed and 37 samples lack of information.

Table 2: KMO and Bartlett's Test for the various factors affecting the internet banking services of commercial banks

KMO and Bartlett's Test							
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						.830	
Bartlett's Test of Sphericity		Approx. Chi-Square		1934.724			
		df		66			
		Sig.		.000			

Total Variance Explained							
Com.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.760	39.666	39.666	4.760	39.666	39.666	4.758
2	2.715	22.627	62.293	2.715	22.627	62.293	2.720
3	.803	6.694	68.987				
4	.763	6.360	75.347				
...				
11	.261	2.178	99.639				
12	.043	.361	100.000				

(Source: The researcher's collecting data and SPSS 20.0)

Table 2 showed that Kaiser-Meyer-Olkin measure of sampling adequacy was statistically significant and high data reliability (KMO = 0.830 > 0.6). This result was very good for data analysis. Table 2 showed that Cumulative percent was statistically significant and high data reliability was 62.293 % (> 60 %). This Data is very good for the next analysis of structure matrix.

Table 3: Structure Matrix for the various factors affecting the internet banking services of commercial banks

Code	Component	
	1	2
QST3	.941	
QST6	.910	
QST4	.820	
QST1	.787	
QST7	.773	
QST2	.770	
QST5	.718	
RHR3		.874
RHR4		.767
RHR1		.702
RHR5		.650
RHR2		.614

(Source: The researcher's collecting data and SPSS 20.0)

Table 3 showed that structure matrix for the various factors affecting the internet banking services of commercial banks that had two components following: **X1**: Quality services and technology (QST) factor is from QST1 to QST7; **X2**: Risk management and human resources (RHR) factor is from RHR1 to RHR5. They are independent variables.

Table 4: KMO and Bartlett's Test for the internet banking services of commercial banks**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	38.456
	df	1
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.370	68.523	68.523	1.370	68.523	68.523
2	.630	31.477	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix^a

Code	Component
	1
IBS2	.828
IBS1	.828

(Source: The researcher's collecting data and SPSS 20.0)

Table 4 showed that Kaiser-Meyer-Olkin measure of sampling adequacy was statistically significant and high data reliability, KMO = 0.500. This result was very good for data analysis. Table 4 showed that cumulative percent was statistically significant and high data reliability was 68.523 % (> 50 %). This Data is very good for the next analysis of regression analysis for factors affecting the internet banking services of commercial banks.

Table 4 showed that structure matrix for the internet banking services of commercial banks that had 1 component (IBS1, IBS2). The researcher calls Y: the internet banking services of commercial banks. Y is dependent variable.

Table 5: Regression Model for factors affecting the internet banking services of commercial banks

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.545 ^a	.297	.292	.46969	1.627

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.255	2	12.127	54.973	.000 ^b
Residual	57.357	260	.221		
Total	81.612	262			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Beta	Tolerance
(Constant)	1.809	.144		12.568	.000		
X1	.286	.036	.419	8.053	.000	.999	1.001
X2	.231	.033	.363	6.983	.000	.999	1.001

(Source: The researcher's collecting data and SPSS 20.0)

Table 5 showed that adjusted R square was statistically significant and high data reliability. In addition, adjusted R square reached 29.2 percent. The results showed that all t value > 2 (Sig < 0.00) was statistically significant and high data reliability. Besides, the regression coefficients were positive. This showed that the effects of independent variables in the same direction with the internet banking services of commercial banks with significance level of five percent.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Internet banking services allow customers to make transactions such as transfer, payment, online shopping... without the bank's counter and no card needed to operate at ATM. Customers need an internet connection device like a laptop, a telephone with a security code provided by the bank when signing up for this service. Besides, benefits of internet banking are easy to see that the biggest benefit of signing up for this service is that customers will not have to go to the bank counter or "walk" to the ATM; customers can do so wherever customers have an internet connection, at any time. Moreover, Online banking services provide customers with the following basic benefits: (1) Account balance inquiry, statements of transactions that have arisen over a period of time. (2) Internal transfer within the system or interbank money transfer. (3) Bill payment online: Pay electricity bills, phone bills, telecommunications fees, pay taxes, pay tuition fees, pay for financial services, online shopping...

In addition, the research results showed that there were 300 commercial bank customers who interviewed and answered about 14 questions. The Data collected from 05/06/2016 to 15/06/2017 in Ho Chi Minh City. The researcher had analyzed Cronbach's alpha, KMO test, the result of KMO analysis used for multiple regression analysis. The research results were processed from SPSS 20.0 software. The parameters of the model estimated by Least - Squares Method tested for the model assumption and there are the two factors that affecting the internet banking services at commercial banks in Ho Chi Minh City with five percent significance level. Finally, the researcher has recommendations improving the internet banking services at commercial banks in Ho Chi Minh City following.

Recommendations

Recommendations for quality services and technology

First of all, commercial banks in Vietnam have just been improved offering simple online services like money transfer, online payment. Other higher-end services, such as electronic wallet linking, money transfer by phone numbers they are available only in large, technology-intensive banks.

Secondly, commercial banks in Vietnam have just been improved the psychology of Vietnamese people, especially some customers are still concerned about the safety of payment transactions via e-banking and improving the traditional mode of payment by cash or money order and money transfer. Commercial banks continue developing electronic payment tools: E-wallet, payment card, Internet banking (IB) accounted such as social factors, consumption habits, and habits of using cash are also a major obstacle.

Thirdly, commercial banks in Vietnam have just been improved the cost of building a large system. The initial investment capital is quite large to select a modern technology in the right direction, not to mention the costs for the system backup, maintenance costs, maintenance and development systems, technological innovation. To meet the increasing demand of customers for IB services, in the field of technology, commercial banks are investing in technology of data security and safety from the countries with advanced technology. In addition, banks must pay more attention to the quality of services, especially the confidentiality and authentication of information in order to create trust in customers.

In addition, commercial banks need to constantly invest in the development of network infrastructure, upgrade and expand the transmission line with broadband, large capacity, high speed. The improvement of transmission lines will help solve communication difficulties on the network, minimizing network congestion and affecting the quality of service. Commercial banks need to promote linkages between other banks and linking them with technology producers should be emphasized. At the same time, it is necessary to strengthen cooperation in the field of technology with technology manufacturers, financial and banking organizations in the region and in the world. Through this paper, the Vietnamese government and the international organizations will take advantage of the various financial, technical and experience support to step by step bring the level of technology and information technology application of Vietnamese commercial banks to the level high.

Finally, commercial banks in Vietnam have just been improved the security and security of the system. The risk in this service is not small. A recent survey found that 100% of commercial banks in the system existing network security vulnerability. Customers are subject to a variety of charges for Internet banking services. In addition, commercial banks in Vietnam have just been decreased the fees of bank transfer transactions, payment of invoices is subject to an admission fee, annual fee, security...

Recommendations for risk management and human resources

First of all, commercial banks in Vietnam have just been improved the legal framework and promulgating the law on the use and protection of credit information to ensure the confidentiality of information for customers and to ensure transparency of credit information among banks. In addition, commercial banks in Vietnam have just been improved to complete and supplement regulations on the legal validity of electronic vouchers to facilitate electronic payment; Regulatory provisions on chip card standards, safety standards, confidentiality, regulations on the provision of intermediary payment services of non-banking institutions.

Secondly, commercial banks in Vietnam have just been improved the infrastructure development and modern technology investment. Vietnamese commercial banks should focus on investment in data security and safety technology from advanced technology countries. Commercial banks in Vietnam have just been improved the implement effective technology transfer to shorten the gap of information technology with the advanced countries, modernize technology to serve the diversification of products and services, improve the quality customer service, reduce labor costs, risk management, enhance marketing, increase competitiveness.

Thirdly, commercial banks in Vietnam have just been improved the quality of products and services and establishment of service centers to solve problems and complaints of customers. Besides, commercial banks in Vietnam have just been developing service quality management procedures and recommending clients to hedge risks to improve the quality of services as well as to ensure the rights and obligations of customers.

Fourthly, commercial banks in Vietnam have just been improved solution propaganda, publicity, and guidance; strengthen communication to encourage access to and use of Internet banking. The staff of commercial banks must also really understand Internet banking and enthusiasm, dedicated to new customers is the strong strength for commercial banks. It can be said that developing payment via Internet banking in the population is an urgent requirement

for Vietnam in the period of deep integration. It will play a very important role in the management of the economy, contributing to limiting embezzlement, corruption, transparency of financial issues, money laundering and terrorist financing, combating tax losses, and creating a fair, clean society and a sustainable economic development.

Fifthly, commercial banks need to intensify propaganda to encourage access to and use of internet banking services, which should make customers understand what internet banking services are, which brings them utilities far better than the traditional service that they have used for a long time. With this activity, commercial banks in Vietnam should organize seminars and customer conferences to introduce e-banking products in general and e-banking services in particular and give the customer the knowledge they need to use the service effectively.

Finally, under the current conditions, internet banking services are developed by commercial banks, resulting in a similarity of capital and advanced technology, service quality is set as a competitive advantage of each bank. Commercial banks aim to satisfy the maximum needs of customers. In parallel with improving the quality of service, it is necessary to set up a better system for receiving, responding and handling customer complaints in order to manage problems arising therefrom. In addition, the State bank should develop and complete a legal document system to better manage online business of commercial banks and serve as a basis for resolving disputes between customers and banks. The State bank should develop common standards and legal basis for electronic documents, electronic signatures and electronic certificates.

REFERENCES

- A Jamal, K Naseron (2002). Customer satisfaction and retail banking: an assessment of some of the key antecedents of customer satisfaction in retail banking. *International Journal of Bank Marketing*.
- Cronin, Mary J. (1997). Banking and Finance on the Internet, John Wiley and Sons. *Banking and Finance on the Internet*.
- Dillman, D.A (3000). *Mail and Internet Surveys*. The Tailored Design Method, New York, Wiley.
- Dochartaigh, N. O. (3002). *The Internet Research Handbook: A Practical Guide for customers and Researchers in The Social Sciences*. London, Sage.
- Fink, A. (3003). *How to Ask Survey Questions*. Thousand Oaks, CA, Sage.
- Gerrard, P., Cunningham, J.B. and Devlin, J.F. (2006). Why consumers are not using internet banking: a qualitative study. *Journal of Services Marketing*.
- Hussein, English, John and Adewunmi, Paul (2014). *An investigation of risk management practices in electronic banking: the case of the UK banks*. University of Huddersfield.
- Keisuke Hirano (2008). *Decision theory in econometrics*. The New Palgrave Dictionary of Economics.
- Kurt Matzler (2002). The factor structure of Customer satisfaction. *International Journal of Service Industry Management*.
- Levesque (2007). *SPSS Programming and Data Management: A Guide for SPSS and SAS Users*. SPSS Inc., Chicago.
- LiL, (2008). Internet banking in China. *Journal of Banking*.

- Parasuraman, A.V.A. Zeithaml, & Berry, L.L (1998). SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. *Journal of Retailing*.
- Pikkarainen, K., Pikkarainen, T., Karjaluoto, H., & Pahnla, S. (2006). The measurement of end-user computing satisfaction of online banking services: empirical evidence from Finland. *International Journal of Bank Marketing*.
- Probability, econometrics and truth (2000). *The methodology of econometrics*. By Hugo A. Keuzenkamp Published by Cambridge University Press, ISBN.
- Rotchanakitumnuai, S. and Speece, M. (2003). Barriers to Internet banking adoption: a qualitative study among corporate customers in Thailand. *International Journal of Bank Marketing*.
- Sadeghi, T., & Hanzae, K. H. (2010). Customer satisfaction factors (CSFs) with online banking services in an Islamic country: I.R. Iran. *Journal of Islamic Marketing*.
- Sylvie, L., and Xiaoyan Li, (2007). Consumers' attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*.
- Tushman, K and Anderson, N. (2007). Evolution of Intern banking. *Journal of economics*.
- Walfried M. Lassar, Chris Manolis, and Robert D. Winsor (2000). Service quality perspectives and satisfaction in private banking. *International Journal of Services Marketing*.
- Zeithaml V and Bitner M J (2000). *Services Marketing: Integrating Customer-Focus across the Firm*. 2nd Edition, McGraw-Hill New York.