International Journal of Research in Business, Management & Accounting

ISSN (Online): 2455-6114
Volume 03 Issue 04 December 2017
Available on-line at::https://ijrbma.com/index.php/bma

DOI: *https://doi.org/10.53555/bma.v3i4.1720*
Received: *02-Sept-2017* | Accepted: *12-Nov-2017*

DETERMINANTS OF TECHNICAL EFFICIENCY OF THE BANKS LISTED ON THE VIETNAMESE STOCK EXCHANGE

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Abstract:

This paper investigates the efficiency of commercial banks listed on the Vietnamese Stock Exchange by using the methods of equalization and quantization. This qualitative analysis base on some financial indexes and is combined with the quantitative analysis by Data Envelopment Analysis (DEA) and To bit model. This panel data set consists of 38 banks with 114 observations for the period 2013-2015. There are three input variables such as deposit, fixed assets and labor costs and two output variables including return on interest and return out interest. Finally, the finding showed that the average technical efficiency of 38 banks is 0,861 and efficiency of co operational commercial banks is higher efficiency of state banks. The factors that impact on efficiency of banks are rate of fixed assets and labor costs, rate of deposits and loans, rate of return on interest and revenues.

Keywords:

Technical efficiency, Commercial Banks, DEA, Vietnames Stock Exchange.

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I. INTRODUCTION

The operational efficiency of the banking sector is spread across various stakeholders- regulators, bank management, share holders of banks, customers of the banks. From a regulators point of view, it is significant to measure the efficiency of the banks to assess the probability of default since banks are sources of funds in the economy and hence shapes the productivity of an economy. The bank management needs to estimate the efficiency to set up the strategies for survival in the competitive environment. The shareholders are concerned about the returns generated by the banks where as the customers are concerned about the service quality and price of the products operated by the banks.

This study investigates the most recent evidence on the technical efficiency of the Vietnamese banking sector. Unlike the previous studies on banks' efficiency, the present study attempts to examine the efficiency of the Indian banking sector by using the Data Envelopment Analysis (DEA), first proposed by Charnes et al. (1985). We believe that it is more appropriate to investigate the efficiency of the Vietnamese banking sector by using the DEA method because the method provides a greater degree of freedom to the sample (Reisman, 2003) and the greater degree of freedom could provide better explanatory power. The present study contributes to the existing literature in at least two important ways. First, Constant Return to Scale (CRS) and Variable Return to Scale (VRS) models look into the scale efficiency and technical efficiency of BSE enlisted Banks. Second, the study attempt to examine the Super Efficiency among Indian banks with regard to the Vietnamese banking sector.

This paper is constructed into 5 parts. First part is the introduction. Second part illustrates the literature reviews on the technical efficiency of firms and other entities. Methodology is presented in the third part. Fourth part shows the findings. Conclusion and recommendations regarding to the credit funds efficiency will be on the last part.

2. LITERATURE REVIEWS

This part provides a discussion on the relevant literature that has been reviewed. Among the issues featured in this section are the factors affecting on the technical efficiency of the firms in general and the banking sector in particular; an empirical review that provides evidence from actual studies that have been carried out as well as a summary of the literature.

First, the study of Tingum and Ofeh (2017) on the determinants of efficiency in manufacturing firms in Cameroon. The study used a stochastic frontier model employing RPED data of 319 firms from different manufacturing industries. The data are micro-level which is the most adequate type of data used in the estimation of these models. The model used is that outlined by Battese and Coelli (1995) which determines the causes of inefficiency in the manufacturing sector in Cameroon. The estimates of the stochastic production frontier with inefficiency effects model indicates that firms in Cameroon exhibit various degrees of technical inefficiency for the sample of firms considered. The results show that firm size plays an important role in explaining technical efficiency in the sub-sector of food processing. However, large firms reduce technical inefficiency levels of firms in all the sub sectors. Another important variable which has an effect in determining technical efficiency level is the foreign ownership variable. It is significant in food processing, wood processing, textile and garments as well as in the overall sample. Hence, it increases technical efficiency in all the sub-sectors. Finally, since an increase in age of firms leads to a reduction in efficiency levels in manufacturing firms, policies should be adopted to replace the existing capital in the large firms.

Second, Singh et al. (2013) investigated the technical efficiency and its determinants in micro finance institutions in India on a firm level analysis. They gathered data from Mix Market Network and a total of 41 micro finance institutions were sampled depending on the availability of data for five consecutive years 2005 – 2014. The DEA model has been employed since it integrates multiple inputs and outputs, and it does not require any price information for dual cost function as is required for parametric approaches. The findings

showed that correlation coefficient of value of total assets is positive with all the efficiency measures and that of age is positive with technical efficiency and scale efficiency. The location variable exhibits positive correlation with efficiency measures and it suggests that microfinance institutions from southern India have positive sign with all the three measures of efficiency. However, debt ratio coefficient is negatively effect to pure technical efficiency and scale efficiency measures. Return on assets and operational self sufficiency which illustrates the technical ability of microfinance institution had positive correlation with all the measures of efficiency.

Third, Njenga (2012) studied the relationship between cost X-efficiency and financial performance of companies listed in Nairobi Securities Exchange in Kenya. The data used comprised of firms listed in Nairobi Securities Exchange whose published financial data was available continuously over the sample period of the study between the years 2006 to 2011. It comprised firms in the following sectors; Agriculture, automobile and accessories, banking, communication and services, construction and allied, energy and petroleum, insurance and investment firm. The findings showed that cost X-efficiency may arise because managers use more input than would a best practice firm, or because they employ an input mix that does not minimise cost for a given input vector. Moreover, the results suggested that X-efficiency arises from the fact that neither individuals nor firms work as hard nor do they search for information as effectively as they could.

Fourth, Amer et al. (2011) carried out the study of determinants of operating efficiency for lowly and highly competitive banks in Egypt used a sample of 24 commercial banks covering the period 2001 – 2008. They used the partial adjustment model that measures the extent to which bank financial performance affects its operating efficiency. The findings showed that in the highly competitive banks, the operating efficiency is positively and significantly affected by the asset quality, capital adequacy, credit risk and liquidity of banks.

Last, Paxton (2003) carried out a study on technical efficiency in Mexico's popular savings and credit sector (PSCIs) with an objective to evaluate the technical and scale efficiency and also to determine the significant determinants of inefficiency. DEA was performed for 350 institutions using both the production approach and the intermediation approach. The findings showed that the average technical efficiency scores, irrespective of methodology or approach are very low in comparison with other studies of banking technical efficiency. One of the most significant outcomes of the analysis was that client profile such as percentage of female, rural client and juvenile did not influence technical efficiency which was significant in the sense that institution with varying client profiles can be equally technical efficiency.

From the above previous, it can be proposed that when a firm operates efficiently, it will improve its financial performance and therefore the greater the economic growth will be. Different factors have been found to explain efficiency levels of firms and some are positively while others are negatively related to efficiency. Savings and Credit Societies therefore need to understand the effect of each variable so that they can find ways of enhancing those that are positively related while mitigating those that are negatively related in order to improve their efficiency and the overall financial performance.

3. METHODOLOGY

The most widely accepted non-parametric approach is the Data Envelopment Analysis (DEA). DEA is a linear programming technique which converts multiple inputs and outputs measured in any unit) of each Decision Making Unit into a scalar measure of efficiency by assigning weights to the inputs and outputs of a DMU that give it the best possible efficiency (Ray, 2014).The mathematical expression for DEA can be expressed as :

Maximize μY/vX for each value of k from 1 to n, subject in each case to:

$\leftarrow Yj / vX\ j \circledcirc 1,\ j \circledcirc 1ton,\ where$

$\leftarrow Yk\ means\circledcirc i \leftarrow_i *Yki\ ,\ i \circledcirc 1tos,$

$vX\ k\ means\circledcirc i\ vi\ *\ X\ ki\ ,\ i \circledcirc 1tom,$

$\leftarrow Yj\ means\circledcirc i \leftarrow_i *Yki\ ,\ i \circledcirc 1tos\ \&\ j \circledcirc 1ton,$

*vX j means◎i vi *Y ji i ◎ 1tom & j ◎ 1ton*
➢i , vi ◎ 0

The solution is the set of maximum values for μYk / vXk and the associated values for μ and v. DEA computes the scores by comparing the performance of a Decision Making Unit (DMU) with respect to its peers. Hence the efficiency scores reflect the comparison of a DMU with respect to the best performance in the industry. The orientation of DEA is on the basis of two approaches- Input orientation and Output orientation. In Input orientation, we explore the possibility of reducing inputs to produce a given level of output level. It is the measure of the ratio of the actual output to the maximum possible output. In the output oriented approach we explore the possibility of a possible expansion of outputs for a given set of input variables measured by the ratio of minimum possible input to actual input. The two approaches comprise of the primal and dual solution of the optimization problem.

The choice of the input and output variables play an important role in the studies of efficiency. Although there is no general consensus in the literature about the variables which constitute the input and output variables (Casu and Girardone, 2002; Sathye, 2003), there exists two approaches for the choice of variables in the studies of efficiency of the banking sector– Production Approach and Intermediation Approach (Bauer et al, 1998). In the production approach, banks are viewed as service providers to customers (Benston, 1965) where as in the intermediation approach banks are viewed as channels between depositors and creditors (Gupta et al, 2008). In the production approach emphasis is given to operating cost by completely ignoring interest expenses. The variables that are commonly used in this approach are proxies of services provided to the customers and are best measured by the number and type of transactions, documents processed or specialized services provided over a given time period and costs related to labour, technology, material space etc. The widely set of variables in this approach comprises of data on the number of deposits and loan accounts, as a surrogate for the level of services provided as the output variables (Kumar and Gulati, 2008).In the production approach, banks produce intermediation services through the collection of deposits and other liabilities and their application in interest-earning assets, such as loans, securities, and other investments and consider both operating cost and interest cost. Thus Deposits are considered to input variable compared to the production approach where deposits are taken as output. In the real scenario, banks function as providers of services as well as financial intermediaries (Berger & Humphrey, 1991). However intermediation approach is suitable for analysing Bank level efficiency whereas production efficiency is suitable for analysing branch level efficiency (Kumar and Gulati,2008; Berger & Humphrey, 1991).

The variables used in the paper are based on the basis of intermediation approach. Although various factors have been used by researchers to measure the efficiency as inputs and outputs, the performance of a bank is determined by monetized value of a set of inputs and outputs. In this study the output variables are (i) Net Interest Income (ii) Non interest income and the set of input variables are (i) Operating Expenses (ii) Physical Capital- measured as the sum of fixed assets and other assets (iii) Loanable Funds- measured as the sum of deposits and borrowings.

DEA results are influenced by the number of inputs and output variables. Our choice of the input and output variables is in agreement with the rule of thumb laid down by Cooper et al. (2007). The rule of thumb can be mathematically expressed as: n >max{m x s ; 3(m+ s)}; where : n= Number of Banks; m= Number of Input variables ; s= Number of Output variables.

Data used in the paper were collected from 38 commerical banks of Vietnam, including 05 State Commercial Banks and 33 Cooperations Commercial Banks from 2013-2015.

4. EMPIRICAL RESULTS

Sumary statistics the variables

Table 1 shows the summary statistics of input and output variables used in the DEA model of the paper.

Table 1: Summary statistics of input-output variables in the DEA (Unit: Million Vietnam Dong)

Variables		**Interest income**	**Non-interest income**	**Labor**	**Capital**	**Loan and Borrowing**
Year	**Measure**	**Y1**	**Y2**	**L**	**K**	**DEPO**
Variables definition		**Operational income**		**Labor expense**	**Fixed assest**	**Loan and borrowing**
2013	Average	4,595,303	521,923	413,109	555,030	39,636,378
	Maximum	45,021,387	5,714,535	5,111,540	4,478,566	357,442,198
	Minimum	188,485	0	16,403	22,497	1,368,102
	S.deviation	8,418,010	1,037,710	959,757	834,168	7,184,100
	Observations	38	38	38	38	38
2014	Average	4,409,102	736,679	467,180	682,873	55,282,851
	Maximum	43,246,817	6,809,154	4,907,936	4,447,805	434,905,857
	Minimum	270,649	8,959	28,815	32,115	1,392,381
	S.deviation	7,800,957	1,350,945	920,251	948,015	8,645,100
	Observations	38	38	38	38	38
2015	Average	7,182,255	852,313	650,636	887,698	77,361,173
	Maximum	55,139,865	6,003,273	6,753,006	5,305,492	472,521,455
	Minimum	569,518	0	42,929	51,000	6,076,268
	S.deviation	1,085,100	1,290,770	1,310,909	1,136,103	1,018,100
	Observations	38	38	38	38	38

Source: Annual report of the Banks

Table 2: Total efficiency, Net technical efficiency and Scale efficiency of the Bank 2013- 2015

Year	**Items**	**Average**	**Std.Dev**	**Minimum**	**Maximum**	**Observations**
2015	Total sample					
	TE	0.883	0.113	0.528	1.000	38
	PE	0.944	0.087	0.751	1.000	38
	SE	0.937	0.093	0.528	1.000	38
	State Banks					
	TE	0.911	0.061	0.836	1.000	5
	PE	0.959	0.061	0.863	1.000	5
	SE	0.952	0.064	0.884	1.000	5
	Cooperational Banks					
	TE	0.879	0.119	0.528	1.000	33
	PE	0.941	0.091	0.751	1.000	33

	SE	0.935	0.098	0.528	1.000	33
2013-2015	Total sample					
	TE	0.861	0.075	0.688	1.000	38
	PE	0.928	0.065	0.805	1.000	38
	SE	0.927	0.054	0.809	1.000	38
	State Banks					
	TE	0.831	0.069	0.751	0.922	5
	PE	0.935	0.090	0.827	1.000	5
	SE	0.887	0.041	0.823	0.924	5
	Cooperational Banks					
	TE	0.865	0.076	0.688	1.000	33
	PE	0.927	0.062	0.805	1.000	33
	SE	0.933	0.054	0.809	1.000	33

Source: Calculations from the Author

Table 2 shows the statistical results describe the entire efficiency estimate, net technical efficiency and effectiveness scale of 38 commercial banks from 2013-2015 period and be made up of the Bank Group in the different property types.

The efficiency of the entire sample period both of average 2013-2015 is 0.861. This shows the commercial banks in Vietnam to generate the same output level as each other, the use was 86.1% of the input or in other words, the Bank also uses waste inputs about 13.9%. As such, the Bank could increase 13.9% more performance if the coordinate use of better inputs. If the review according to the type of the property, the average efficiency of the State Commercial banks (0.831) is lower than the average efficiency of the Cooperational Banks (0.865). This shows the active bank more effectively than the State Commercial banks. To generate the same output level as each other, the Cooperational Banks have used 13.5% wastage of inputs while the figure of the State Commercial banks is to 16.9%. Additionally, because the entire technical efficiency is the product of effective techniques pure and efficient scale, so the magnitude of the performance targets will reflect the effective source of non Banks' activities. Table 3 also states that pure engineering efficiency average of the samples in the 2013-2015 phase is 0.928 larger than average scale efficiency of sample is 0.927. As such, can be seen in the period of the study sample, the factors that reflect the pure technical efficiency contribute to the whole effect is larger than scale efficiency. However for the block State Commercial banks, the pure technical efficiency average (0.935) again larger than average performance (0.887). So we can conclude that the factors that reflect the scale of the State Commercial banks is the factor causing non-effective source greater than technical factors.

Table 3: The Increase Rate of Scales (IRS), Decease Rate of Scale (DRS) and Constant Rate of Scale (Const) of the Commercial Bank during 2013-2015

Items	**2013**	**2014**	**2015**
IRS	**6**	**14**	**12**
DRS	**24**	**12**	**14**
CONS	**8**	**12**	**12**
Total	**38**	**38**	**38**

Table 3 illustrates the summary results of DEA model to estimate a specific number for the said banks are operating under conditions of increased performance according to the scale, performance decreases performance and scale in the scale. As for the results of each Bank is presented in addendum 2. According to estimates from the DEA model State Commercial Banks most through the years operating under conditions of reduced performance according to the scale, so if the Bank continued increasing the scale of operations will reduce the efficiency of the entire operation. This is consistent with the status of the State commercial bank today when the Bank has a very large scale in comparison with the rest of the Bank in Vietnam. However, the effect was not adequate to the scale of it. Speaking more specifically to increase the efficiency of operations, the Bank should not focus on the expansion of the traditional products such as credit which should focus on developing new products as the products and services to be can improve the productivity of the inputs. Also for the Bank is still very much active bank under conditions of increased performance according to scale (IRS), and the majority of banks are still small scales. So to improve the efficiency of its operations, the Bank should expand the scale of operations and still be able to continue to expand the products it offers to the market.

So through the analysis on we can draw some conclusions as follows:-the technical efficiency of the entire average in 2013-2015 phase of Cooperational Bank is higher than the State Commercial Banks. These factors reflect the efficiency scale of the State Commercial Bank causing the source of non-effectively larger than the pure performance reflects the factor while Cooperational Banks tend to the contrary. The majority of the Commercial Banks of Vietnam is operating under conditions of reduced performance according to the scale and this is true for most of the State Commercial Banks.

Table 4: Determinants of Technical efficiency of Commercial Banks Operations

Variables	Cofficient	Standard Error	t	P>|t|	Confident Interval 95%	
Operational Efficiency 2014	0.081**	0.040	2.02	0.046	0.001	0.161
Operational Efficiency 2015	0.044	0.039	1.12	0.267	-0.034	0.121
State Banks	-0.130**	0.053	-2.46	0.016	-0.235	-0.025
Logarit Total Assets	-0.007	0.016	-0.46	0.646	-0.040	0.0025
Cost to Revevue	0.112	0.210	0.53	0.595	-0.305	0.529
Loan/Total Debt	-0.055***	0.020	-2.70	0.008	-0.094	-0.015
Asset/Labor expenses	-0.019**	0.008	-2.51	0.014	-0.035	-0.004
Total interest income/Revenue	-1.039***	0.286	-3.64	0.000	-1.605	-0.473

Const	1.978	0.451	4.39	0.000	1.083	-0.872

Table 4 shows the estimated coefficients of variation reflects the impact of the type of commercial bank to operate efficiently (nn) reflect the commercial bank owned by the State mean of 5%. The coefficient estimate for "nn" carries the negative sign means that the effect of State Commerical Banks is lower than the Cooperational Commercial Banks. This again fits with the result of DEA model for that performance of the State Commercial Banks is lower than the Cooperational Commercial Banks. Therefore in the coming period requires the State Commercial Banks need to innovate in a way a more powerful from the Bank through the structure, how the management, the development strategy of all these items, provide new services , ... and add to it is raising the level of staff through the recruitment and training of human resources, thus can enhance the effectiveness of activities in order to enhance the ability to compete not only with the Cooperational Commercial Banks but also with branches and foreign banks in Vietnam.

The variable rate of capital/debt is negative impact to technical efficiency estimate the statistical significance level of 1%. Therefore, the increasing of this rate will diminish the performance. This means if the banks use the mobilized well then you probably will increase the operational efficiency of the Bank. However, the issue of how effective use of capital resources is also a problem that banks is facing. Because ratio of full-demanded loan by customers is not met by the Bank, thus banks may have a potential liquidity risk if they use sources to lend short term medium and long term. This is quite consistent with the actual situation at present when the majority of medium and long-term loans of the Bank belong to the field of property, and the granary when the market froze, then the Bank will have difficulty in collecting the debt.

Because of the variable/fixed assets ratio of staff expenditure are two of the three input variables of the model had a direct influence on DEA effective techniques for should the review of the relationship between this input and use them like would have important implications in the analysis of the factors affecting the performance of the Bank. Based on the results of the model we see cpital to labor variable sound effects to the effective techniques at a level of significance of 5%. So the ratio Capital to Labor increase will increase the non- effective in terms of cost, this help to confirm that if commercial banks are too focused on expanding investment activities according to the width as extended the scope and geographical activities (open more branches and offices) that will increase to operate the Bank and this will reduce the performance of the Bank. Instead, the Bank should promote the improvement of the quality of human resources, recruitment and training of qualified staff the expertise good enough to meet the demands of the work. Contact with reality now when there are so many banks do not stop expanding geographical works, open more branch offices but did not increase operational efficiency, And a typical example is the CTG (industrial and commercial bank) when expenses for employees in 2015 increased to 130% in comparison with the year 2014 had led to a net profit increase to more than 165% while fixed assets almost no increase over the previous year.

The coefficient estimate of interest income/total revenue has a negative impact to technical efficiency and mean at the level of 1%. Before explaining this variable we need to say to the revenues of the Bank's interest rate, it represents a traditional business activity of the Bank which is to grant credit. While revenues in addition to the interest rate represents the business activities of the Bank's services. So when looking at the proportion of the income interest in the total revenue of a Bank, we can identify some part of the Bank's business strategy should look like. Based on table 4.10 we can conclude when the rate increases will make the performance of the Bank. This result suggests not just lending banks as much to increase revenue, the higher the performance. Because the more loans the credit risks as high bad debt rate increases and that's of course not good impact to performance. Based on the actual situation in the past, due to the constantly expanding bank credit market should have more ventilation in the evaluation of the project loans and especially the

very high risk projects such as real estate While the ability to analyze and project appraisal of the officers, limited credit risk management limited has made the loans are more risky than the dish. Besides, because of the traditional services of the Bank as credit is increasingly suffering stiff competition so the banks need to focus more on the development of new products and services and the benefits to customers. This can increase performance and ability to compete for the Bank.

The coefficient of the variable time brings asterisk and the statistical significance level of 5%. With this result shows the whole technical efficiency reflects the performance of the Bank in 2015 is higher than in the remaining two years. This can be explained in 2013 to coincide with the start of the crisis the global financial-economic for the domestic economy should also more or less affect. The banking industry also did not escape the treadmill it and also affected from this crisis. The year 2013 is the year that the banking industry is really difficult in many respects as: bad debt of the Bank tends to increase; most banks did not reach the target profit or the Government's monetary policy change to also not good impact to the banking system. However, two years later in the context of the economy gradually escaping the crisis with a series of policies to stimulate the economy, the banking industry part would overcome the difficulties and continue the momentum of fast growth, namely the growth of the residual debt, capital, total assets and profits of the Bank. The time variables in the model generally have somewhat reflecting the change and the positive influence of the macro environment up the performance of the banks, the possible conclusions can be proposed as follows :

-The State Commercial Banks have inferior performance compared to the Cooperational Commercial Banks.

-To increase the efficiency of operations, the Bank needs to use a and effectively mobilized to lend at a reasonable rate

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-The State Commercial Banks have inferior performance compared to the Cooperational Commercial Banks.

-To increase the efficiency of operations, the Bank needs to use a and effectively mobilized to lend at a reasonable rate.

- Increased fixed assets sources through the expansion of more branches and transaction will reduce performance.

-The banks need to diversify revenue sources rather than depend too much on the current credit.

-The performance of the Bank in 2015 are higher than in the remaining two years

5. CONCLUSIONS AND SUGGESTIONS

Conclusions

This paper investigates the efficiency of commercial banks listed on the Vietnamese Stock Exchange by using the methods of qualitation and quantitation. This qualitative analysis base on some financal indexs and is combined with the quantitative analysis by Data Enverlopment Analysis (DEA) and Tobit model. This panel data set consists of 38 banks with 114 observations for the period 2013-2015. There are three input variables such as deposit, fixed assets and labor costs and two output variables including return on interest and return out interest. Finally, the finding showed that the average technical efficency of 38 banks is 0,861 and efficency of cooperational commercial banks is higher efficency of state banks. The factors that impact on efficency of banks are rate of fixed assets and labor costs, rate of deposits and loans, rate of return on interest and revenues.

Sugguestions

The Government need to continue innovating and perfecting the system a legal Bank activity, including safety standards and risk management; regulations on granting of credit; regulations on the classification of the debt and the redundant set excerpt suitable risk than usual, with international standards; the regulation

on licensing established financial institutions (FIs), open and termination of activity of the branch, FIs transaction will also be complete, the accounting system of the Fis more suited to international accounting standards.

- Annual need of the SME rating group as FIs in time recently however need the publicity criteria to the rating evaluation. The assessment ratings also have positive effect of forcing the banks to promote all activities the Bank standard to keep the prestige, ensure a safe, effective.
- Reviews the classification of commercial banks into three categories: healthy commercial banks, commercial temporary liquidity shortages and commercial banks weakness. The healthy commercial banks will be facilitating the development of scale and competitiveness in domestic, international, the commercial banks weakness, risk losing the safe should be priority system restructuring to return the market operating under the standard, the rule of law. If commercial banks weakness could not recover, they must be resolutely taken out of the market in an orderly fashion to ensure market discipline and the General safety, healthy system of the commercial banks. Separate temporary liquidity shortages commercial banks will be Small and Medium Enterprises (SME) support to recovery, at the same time have to rectify, strengthening to healthy functioning, safer. In the process of restructuring the system of commercial banks, especially handling the commercial banks weakness, healthy banks will be the main body to participate actively to support restructuring.
- Strengthening executive management, capacity building policy, predictions of State Bank of Vietnam (SBV). Raise the level of modernization, Bank technologies in order to create the SME system more convenient operating management in the commercial banks.
- Construction of Bank technology development, information management system for the entire banking system to serve the administration, control of the banking, capital management, risk management, the payment system and interbank electronic transaction system and remote monitoring. SME needs to continue to merge the banks too small scale, the financial situation is not good, poor business performance or liquidity problems. When doing so will form the larger scale Bank, enough to compete with other banks as foreign banks. Besides that will help reduce the number of the Bank, from which the more favorable for SME, in the management of commercial banks executives. With the Bank too weak, to a partner would like to control, then SBV must buy back. After the restructuring, the healthier banks will sell back to the Bank, other investors.

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