

THE IMPACT OF RESTRUCTURING ON PROFITABILITY EFFICIENCY IN VIETNAMESE BANKING SYSTEM: DEA MODEL APPROACH

VAN-THEP NGUYEN

Department of Finance and Banking, College of Economics,
Can Tho University, Vietnam

ABSTRACT

This study aims to identify whether banks' performance post mergers and acquisitions have brought profitability efficiency or not. The data is collected from financial statements of 8 commercial banks in Vietnam, including SCB, PVcombank, HDBank, Sacombank, MSB, BIDV, SHB, and Vietinbank. This study is utilized the DEA approach to estimate and compare the banks' scores before and after mergers and acquisitions. The results show that mergers and acquisitions almost cannot lead to improved efficiency for acquiring banks, especially in terms of profitability efficiency. This requires Government, the State bank of Vietnam, policymakers as well as commercial banks themselves not only concentrate on mergers and acquisitions but also pay attention to solve difficulty post-restructuring such as non-performing loans, liquidity, and interest risk, capital adequacy ratio, technology, and even personnel issue.

Keywords: Acquisitions, DEA, mergers, profitability efficiency, Vietnam

1.0 INTRODUCTION

The banking system plays an important and essential role in the economic development in every country because this system can be seen as an object which is sources of financing for the private sector's businesses and connecting more economic sectors related to borrowing and lending performances (deposits and loans). Besides, because of being a part of financial intermediation, the banking system also provides plenty of finance and banking services such as derivatives, stocks, hedge funds and operate as domestic and international payment intermediaries in order to meet customers' demands. The banking system has faced too many difficulties in recent years, however, especially in the global financial crisis period, which may be addressed as undercapitalized, high of liquidity risk, limiting competition capacity, low profitability and banking bankrupt probability. These phenomena required the Governments and the Central banks in every country to have solutions to recover the performance of the banks, especially weak banks.

One of the solutions which ameliorate the banking performance in that period is restructuring the banking system throughout mergers and acquisitions deals - as a means of strengthening the banking system. Thus, the mergers and acquisitions deals in that period were significantly increasing, especially in emerging countries. In principle, the benefits which were brought

from these deals may be regarded as better bank performances (new management technologies and best practice), greater market power, larger market share, and scale post mergers and acquisitions.

However, the operation of the banks after the mergers and acquisitions whether really effective for acquiring banks as well as target banks or not was given as an urgent issue for the Governments, the Central banks, economic experts and even researchers.

Derived from this situation, the author had carried out a study on the impact of restructuring on profitability efficiency in the Vietnamese banking system in recent years, thereby proposing some solutions and applications for the development of the banking system in Vietnam in the near future.

The rest of this study is consisted of following contents (2) discuss the data sources and the methodology, (3) discuss the empirical results, (4) propose some implications for the development of the banking system in Vietnam in the near future, and (6) conclude.

2.0 DATA AND METHODOLOGY

Up to now, there are 12 weak banks that have to carry out compulsory restructuring through various measures, such as consolidations (Sai Gon Joint Stock Commercial Bank (SCB), FicomBank and Tinngiabank consolidated successfully in late 2011; Westernbank and PVFC consolidated successfully in the year 2013), mergers (Habubank merged into Sai Gon – Ha Noi Joint Stock Commercial Bank (SHB) in the year 2012; DaiAbank merged into Ho Chi Minh Development Joint Stock Commercial Bank (HDBank) in the year 2013; Southernbank merged into Sai Gon Thuong Tin Commercial Joint Stock Bank (Sacombank) in the year 2015; MDbank merged into Vietnam Maritime Joint Stock Commercial Bank (MSB) in the year 2015; MHB merged into Bank for Investment and Development of Vietnam (BIDV) in the year 2015, PGBank merged into Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank) in the year 2016). Therefore, the dataset using in this paper is collected from financial statements of 8 commercial banks in Vietnam, including SCB, Vietnam Public Joint Stock Commercial Bank (PVcombank), HDBank, Sacombank, MSB, BIDV, SHB, and Vietinbank.

For methodology, the author first utilized DEA approach to estimate the banks' scores before and after mergers and acquisitions by using three input variables, including fixed assets, total non-interest operating expense, and interest expense and two output variables, including net interest income and other operating income, then the author compared the banks' scores in two distinct periods to identify whether banks' performance post mergers and acquisitions have brought profitability efficiency or not.

3.0 OVERVIEW OF THE VIETNAMESE BANKING SYSTEM

The Vietnamese banking system has rapid growth in terms of quantity in recent years. Up to now, the commercial banking system in Vietnam has 28 joint-stock commercial banks, 07 state-owned commercial banks, 09 foreign banks' branches, and 02 joint-venture banks¹.

¹ State bank of Vietnam, 2018

With the rapid development in terms of quantity, so far the commercial banking system in Vietnam has a large network covering all provinces and cities throughout the country, which meet the demand for banking services of the customers. However, there are many commercial banks with a large volume of non-performing loans (bad debts), liquidity and interest risks, underperformance, with a lack of competitiveness and many other problems in the banking system, resulting from the rapid development in terms of quantity of commercial banks. The state bank of Vietnam, the Ministry of Finance and economic experts, therefore, has come to a consensus: restructuring of the Vietnamese banking system is imperative and should be immediately implemented to strengthen banks' equity and recovery weak banks. To perform this policy, the state bank of Vietnam approves the merger and acquisition of domestic banks.

4.0 EMPIRICAL RESULTS

Mergers and acquisitions are considered to be an effective solution for restructuring the commercial banking system. The merger and acquisition process is not merely an arithmetic calculation, but also that goes accompanied by problems such as non-performing loans, governance capacity, even profitability needs to be addressed. In terms of the outside views, the restructured commercial banks in Vietnam had many benefits by mergers and acquisitions deals, including:

Firstly, a number of banks participating in restructuring have taken place that addresses some urgent issues such as decreasing the number of weak banks, improving banks' governance capacity and protecting customers' benefits in a competitive market economy.

Secondly, restructured commercial banks could be taken advantage of the equity capital, human resources, number of branches to satisfy the increasing demands of customers. According to the report of the State bank of Vietnam, after the merger with Habubank, SHB has more than 400 transaction points, compared with only 95 previously. From 600 transaction points, after the merger with MHB, BIDV has more than 1000 transaction points. In particular, through the process of mergers and acquisitions, commercial banks could be eliminated weak banks that having unsustainable financial sources, minimize losses incurred, especially non-performing loans, result in avoiding most of the impact of the risk to the commercial banking system in Vietnam.

Table 1 shows the efficiency scores of each of the 8 Vietnamese commercial banks in the year before and after mergers and acquisitions. The results show that most of the commercial banks in the sample have the same score (equal to 1.000000) which measures the banking profitability efficiency in two periods. In other words, these banks' profitability efficiency has sustainability despite restructuring. Only two joint-stock commercial banks' scores (being the Sacombank's and MSB's) have changed in the opposite direction, namely Sacombank's profitability efficiency score fall (from 1.000000 to 0.802676), whereas MSB's that rose in-sample period (from 0.930066 to 1.000000), meaning that mergers and acquisitions almost cannot lead to improved efficiency for acquiring banks, especially in terms of profitability efficiency.

However, in terms of profitability efficiency, the results are presented in the following table:

Table.1 The Vietnamese banking system’s profitability efficiency (before and after restructuring) – Using DEA model approach

No	Banks	Banking profitability efficiency (score)	
		Before	After
1	Sai Gon Joint Stock Commercial Bank (SCB)	1.000000	1.000000
2	Vietnam Public Joint Stock Commercial Bank (PVcombank)	1.000000	1.000000
3	Ho Chi Minh Development Joint Stock Commercial Bank (HDBank)	1.000000	1.000000
4	Sai Gon Thuong Tin Commercial Joint Stock Bank (Sacombank)	1.000000	0.802676
5	Vietnam Maritime Joint Stock Commercial Bank (MSB)	0.930066	1.000000
6	Bank for Investment and Development of Vietnam (BIDV)	1.000000	1.000000
7	Sai Gon – Ha Noi Joint Stock Commercial Bank (SHB)	1.000000	1.000000
8	Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank)	1.000000	1.000000

Source: Financial statements of 8 Vietnamese commercial banks in the period of before – after M&A²

5.0 THE IMPLICATIONS FOR THE DEVELOPMENT OF THE VIETNAMESE BANKING SYSTEM

Based on the empirical results, it can be seen that mergers and acquisitions are the best way to improve the performance of the banking system in Vietnam. Thus, the Government, the State bank of Vietnam or policymakers need to propose and evaluate solutions to have good orientations for the development of the banking system in Vietnam.

² Because Vietnamese commercial banks in above table have restructured in different period, yearly datasets were utilized before and after M&A of them are also different (where, SCB (2010 and 2012), PVcombank (2012 and 2014), HDBank (2012 and 2014), Sacombank (2014 and 2016), MSB (2014 and 2016), BIDV (2014 and 2016), SHB (2011 and 2013), and Vietinbank (2014 and 2016)).

For mergers and acquisitions deals of the commercial banking system in Vietnam, these urgent issues must be implemented on a voluntary rule, ensuring depositors' and involved economic sectors' benefits and obligations. Moreover, the restructuring of the commercial banking system in Vietnam should also be implemented in a variety of forms, measures and appropriate processes. Based on the banks' characteristics, the State bank of Vietnam will promulgate reasonable policies and solutions.

Apart from mergers and acquisitions, developing a diversified banking system of ownership, scale, and types of banks to satisfy the customers' diverse demands should also be considered. In terms of scale, there will be some large banks that play a key role, small and medium banks, and non-bank credit institutions that satisfy the demands of banking services for people in society. Besides, these banks need to maintain existing market shares and continue to develop potential markets and diversify products and services.

A problem that affects the development, as well as the performance efficiency of the commercial banking system in Vietnam, is non-performing loans. Dealing with non-performing loans, therefore, is one of the most important goals in banking reform in the coming years. It requires the assessment of customers among commercial banks should be based on information from Credit Information Center (CIC) to have consistency in the classification of customers in order to improve the quality of credit. Besides, the commercial banking system in Vietnam needs to promote the application of risk management standards and banking regulations in accordance with Basel II standards.

Because of integrating into the world economy for globalization, the government, as well as the state bank of Vietnam, allows foreign banks to perform all of the services the same as domestic banks. Because of competitive pressure increasingly due to the loosening of regulations for foreign banks which have modern technologies, well – governance capacity, and large scale and financial capacity, it requires domestic banks need to have technological innovation, expand the operating networks, strengthen facilities, acquire management experience according to international standards, and especially continue to increase charter capital because the volume of charter capital of domestic banks is still small compared with the requirements for developing the banking system to compete with foreign banks as well as minimize the risk of banking capital.

Related to human resources in the banking sector, there is a little staff with professional skills (communication skills, customer persuasion skills, presentation skills, or teamwork skills) as well as governance and policymaking capacity remains inadequate. In addition, the professional ethics issue is also a great challenge for developing the commercial banking system in Vietnam. The banks, therefore, need to regularly train their staff through organizing training courses quarterly, half-yearly or yearly. Apart from the basic knowledge about professionalism, staffs need to be trained more about the law on finance and banking, sales and communication skills, and even knowledge of management. At the same time, banks should also be paid more attention to training foreign languages for employees. In addition, due to the progress of international integration increasingly, to acquire knowledge on banking management from developed countries all over the world as well as to promote learning operating experiences in other banks in other countries, the commercial banks in Vietnam need to further strengthen training and international cooperation related to personnel issues.

6.0 CONCLUSION

The status of restructuring of the banking system in Vietnam where deals only implement for acquiring banks and there is not improving performance efficiency for these banks. This requires Government, the State bank of Vietnam, policymakers as well as commercial banks themselves not only concentrate on mergers and acquisitions but also pay attention to solve difficulty post-restructuring such as non-performing loans, liquidity, and interest risk, capital adequacy ratio, technology, and even personnel issue. That leads the Vietnamese commercial banking system can enhance operating efficiency, promote competitive capacity so that these banks compete not only to domestic credit institutes but also to foreign banks in the competitive market.

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APPENDIX

a) The banking profitability efficiency (score) before mergers

NO	DMU	Score	Dual Price (Fixed assets)	Dual Price (Total non-interest operating expense)	Dual Price (Interest expense)	Dual Price (Net interest income)	Dual Price (Other operating income)
1	SCB	1	0	-3.71223E-07	-1.5125E-07	1.66682E-07	8.95562E-08
2	Pvcombank	1	0	-6.96192E-07	0	0	3.30867E-07
3	HDBank	1	-3.95749E-07	-9.75966E-07	0	1.92484E-07	0
4	Sacombank	1	0	-4.87957E-08	-8.7506E-08	6.58087E-08	0
5	Maritime Bank	0.930066	-8.85457E-08	-1.79622E-07	-7.5933E-08	8.14124E-08	1.21181E-07
6	BIDV	1	-6.0905E-08	0	-2.1873E-08	1.82288E-08	2.44209E-08
7	SHB	1	-5.54855E-08	-2.4215E-07	-9.9624E-08	1.28517E-07	0
8	Vietinbank	1	-1.33006E-09	0	-4.2059E-08	2.43454E-08	0

b) The banking profitability efficiency (score) after mergers

NO	DMU	Score	Dual Price (Fixed assets)	Dual Price (Total non-interest operating expense)	Dual Price (Interest expense)	Dual Price (Net interest income)	Dual Price (Other operating income)
1	SCB	1	-1.86E-09	-1.10574E-07	-4.26831E-08	5.7746E-08	0
2	Pvcombank	1	0	-7.73604E-08	-1.6632E-07	0	4.43E-07
3	HDBank	1	-1.9E-06	0	0	1.5878E-07	0
4	Sacombank	0.802676	0	-4.66821E-08	-5.07317E-08	3.8386E-08	3.645E-08
5	Maritime Bank	1	0	0	-2.44206E-07	1.2846E-07	9.537E-08
6	BIDV	1	0	-4.28704E-08	-6.47595E-09	1.2596E-08	1.943E-08
7	SHB	1	0	-2.55313E-07	-6.94995E-08	1.09E-07	0
8	Vietinbank	1	0	0	-3.2695E-08	1.7199E-08	1.277E-08