

COMPETITIVENESS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

¹**Mai Thi Huong**

¹University of Labour and Social Affairs, Hanoi, Vietnam

^{2*}**Pham Van Huy**

^{2*}Corresponding author, Hanoi University of Business and Technology, Hanoi, Vietnam

³**Do Minh Thanh**

³Thuongmai University, Hanoi, Vietnam

Abstract

Economic globalization is the most important aspect of globalization. The rapid globalization of the world economy brings Vietnam many opportunities and challenges. One of those challenges is the increasingly fierce level of competition in the market. Commercial banks need to improve their competitiveness to survive and develop. To create sustainable competitive advantages, commercial banks need to discover, nurture, and develop their resources. The main purpose of this study is to empirically examine the influence of competitiveness on the financial performance of commercial banks listed on the Hochiminh stock market (HSX). The authors collected secondary data from previous studies on commercial banks listed on the Hochiminh stock market in the period 2019–2023. For this purpose, in this study, we use the market share (MS) variable to measure the competitiveness of commercial banks; ROA measures the financial performance. We have performed a number of analyses, such as descriptive statistics, correlation matrix, OLS regression, FEM and REM, and GLS regression, with the support of Stata software, to evaluate and measure the influence of competitiveness on the financial performance of commercial banks listed on the Hochiminh stock market (HSX). The results show a positive influence of competitiveness on the financial performance of commercial banks listed on HSX. The competitiveness and financial performance of commercial banks listed on the HSX are statistically and economically significant.

Keywords: Competitiveness, financial performance, business administration, finance, commercial banks

JEL Codes: M10, G21, F65, D41

1. INTRODUCTION

Firm competitiveness has consistently been a primary focus of both local and international study in recent years. Competitive advantage, or the fundamental element influencing a firm's success, is strongly related to competitiveness since the latter is one of the criteria used to compare businesses in the same industry (Bredrup, 1995).

According to Porter (1990), competitiveness is the capacity of an organization to generate, preserve, apply, and generate new competitive advantages in order to produce goods that are more

productive and of higher quality than those of its rivals, increase its market share, and provide high wages for its workers and long-term growth for the company.

Every manager is always focused on achieving high financial performance since it is essential to the growth and structure of the company. Nevertheless, numerous obstacles frequently stand in the way of this goal, which results in subpar company performance (Nhung, Daphné, & Huyen, 2021). Numerous factors, both internal and external, have a significant impact on performance in both financial and non-financial dimensions.

Vietnamese commercial banks must contend with fierce competition from foreign banks and non-banking financial intermediaries as a result of the integration process. Thus, banks offering commercial goods have numerous options for enhancing their financial performance, one of which is raising their level of competition. Additionally, this means that commercial banks themselves must always create, enhance, and innovate—including by coming up with ways to become more competitive.

In the dimensions of this paper, we used competitiveness for analyzing and evaluating financial performance and then projecting future performance. Based on the impact level of competitiveness on financial performance, some strengths, weaknesses, and then some suggestions were proposed for enhancing and improving financial performance in the case of listed commercial banks in the context of emerging countries like Vietnam.

2. THEORETICAL AND BASIS LITERATURE REVIEW

Financial performance

The rates of return on assets are indicators of a company's financial performance (Zeitun & Tian, 2007; Agha, 2014; Iqbal & Zhuquan, 2015; Chi, 2018). Additionally, it is the rate of return on equity (ROE) as well as the rate of return on assets (ROA) (Onaolapo & Kajola, 2010; Pouraghajan & Malekian, 2012). Based on the aforementioned viewpoints, Trang and Anh (2018) contend that one of the crucial elements of business performance is financial performance, with ROA and ROE being the two metrics most frequently employed to assess financial performance. A key factor in attracting capital and lowering a company's cost of capital is its financial success. Investors will view a company with strong financial performance favorably (Lan & Anh, 2019). In addition, Nguyen, Nguyen, and Nguyen (2016) measured the firm's financial performance using ROE as a proxy.

In this study, we use the ROA index to reflect the financial performance of commercial banks listed on the Ho Chi Minh stock market.

Competitiveness

Competitiveness is defined as the capacity to meet sustainable development goals as indicated by the products offered to the market, production costs, and added value, in addition to profit goals (Porter, 2009a).

As per Vu's (2006) perspective, the study mentions the competitiveness of firms. The capacity of businesses to locate and increase their market share in order to increase profits or The ability of a business to outperform its competitors in terms of earnings and product availability is known as competitiveness.

The ability to hold and control the market of entities engaged in production and business operations in order to attain optimal efficiency in a particular business environment is what Porter (1998) defines as enterprise competitiveness. A bank's ability to address customer needs through product provision is the culmination of all of its capabilities, and this is what makes it competitive. In addition to offering extensive, varied, and high-quality services, banks that wish to become more competitive must also focus on their products' convenience and distinctiveness from others. comparable services available. From there, developing a competitive edge, raising banks' yearly earnings, building a name for themselves, a strong market position, and the capacity to tolerate and get over unfavorable changes in the business climate.

The ability to maintain an enterprise's competitive advantages (low costs and product differentiation) is one of the many different ways that the competitiveness of businesses is currently measured. Other approaches include the use of labor productivity and human capital capacity by Salinger (2001), the use of technical efficiency and productivity indicators by Wangwe (1995), and financial efficiency (profit) by Cockbum et al. (2000). Market share is a useful metric for gauging an organization's competitiveness, as noted by Pham (2017). When an enterprise holds a larger market share than another, it might be considered more competitive. When calculating market share statistics, companies often compare their revenue during a certain time period to the total revenue of other companies operating in the same industry. The calculation formula is as follows:

$$\text{Market share (MS)} = \frac{R_i}{R}$$

MS: Market share

R_i: Revenue of the i bank,

R: Total revenue of banks in the same industry in the market and listed on the Hochiminh stock market.

3. RESEARCH METHODS

Research models

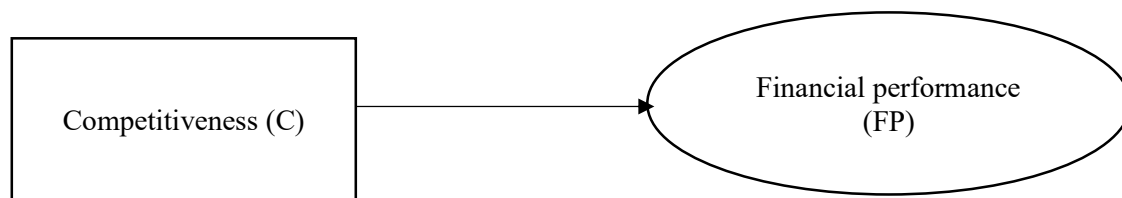


Figure 1: Research model

Methodology

Both qualitative and quantitative research methodologies are used in this study.

Qualitative research method: To assess the financial performance and competitiveness of commercial banks listed on the Hochiminh stock market, we employ synthesis, analysis, comparison, and contrast methodologies. We gathered prior studies and conducted interviews with

six professionals who are prominent instructors in the fields of banking, finance, and business administration: directors of commercial banks. The study findings of earlier studies are guided and improved by qualitative research methodologies. This research then applies and inherits from that. When it comes to gauging the financial performance and competitiveness of commercial banks, all six experts (or 100%) concur with the methodology we suggested. Therefore, our proposal does not alter the methodology used to assess the financial performance and competitiveness of commercial banks.

The panel data used in the quantitative research approach was collected during a five-year period, from 2019 to 2023. We gather information on the competitiveness and financial performance of commercial banks listed on the Hochiminh stock exchange based on reliable websites like <http://cafef.vn>, <https://financevietstock.vn>, etc. The research sample excludes commercial banks that are not listed on the Hochiminh Stock Exchange.

The research sample is 18 commercial banks listed on the Hochiminh stock market (<https://24hmoney.vn/companies>; cophieu68.vn), with a competitiveness and financial performance target in 5 years. We collected 90 observations. We then evaluated, analyzed, and measured with the support of Stata 13 software.

4. RESEARCH RESULTS

Descriptive statistics

Table 1 shows: Competitiveness and financial performance of commercial banks are described by 90 observations (obs); basic indicators such as the average value (mean), maximum value (max), minimum value (min), and standard deviation (sd) of each index have been determined, and the basic indicators reflect the competitiveness and financial performance of commercial banks.

Table 1: General descriptive statistics and detailed descriptive statistics

General descriptive statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
MS	90	.0555556	.044887	.0127209	.1804358
ROA	90	.0159	.0109126	.0046131	.065973
Detailed descriptive statistics					
Stats	MS	ROA			
N	90	90			
sum	5	1.431003			
variance	.1677149	.0613599			
range	.0020148	.0001191			
cv	.8079657	.6863231			
skewness	1.360563	2.900925			
kurtosis	3.787101	13.74161			
p50	.0381389	.014558			

Source: Compiled by authors and Stata 13 software

Correlation matrix

Table 2 describes the correlation relationship with the variables in the research model, including dependent variable ROA and independent variable MS. According to the results of Table 2, the correlation coefficient between the pair of independent variables and dependent variables in the model the figure is smaller than 0.8, so it is less likely that multicollinearity occurs between the independent variable and the dependent variable when included in the model. To check for multicollinearity, the study uses the variance inflation factor (VIF) in the regression model. The results show that the VIF value is 1.00 (table 3), so it can be concluded that the model does not have a multicollinearity phenomenon.

Table 2: Correlation matrix results

Correlate MS ROA
(obs=179)

	MS	ROA
MS	1.0000	
ROA	-0.2101	1.0000

Source: Compiled by authors and Stata 13 software

Table 3: Results of variance magnification factor VIF

Variable	VIF	1/VIF
MS	1.00	1.0000
Mean VIF	1.00	

Source: Compiled by authors and Stata 13 software

Regression results

OLS regression

Table 4 shows that $F = 29.52 > 1.96$ and $\text{Prob.} > F = 0.0000 < 0.05$. The result of this model with R-squared is 0.1429, meaning that the independent variables in the research model explain 14.29% of the influence of the independent variable on the dependent variable. According to Kohler and Kreuter (2005), the findings are accepted temporarily but need to test the suitability of the model.

Table 4: OLS regression results

Regress ROA MS				
Source	SS	Df	MS	
Model	.000467722	1	.000467722	Number of obs = 90
Residual	.010130744	88	.000115122	F(10, 141) = 4.06
Total	.010598466	89	.000119084	Prob > F = 0.0469
				R-squared = 0.0441
				Adj R-squared = 0.0333
				Root MSE = .01073

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
MS	-.0510715	.0253375	-2.02	0.047	-.1014245	-.0007185
_cons	.0187373	.0018057	10.38	0.000	.0151489	.0223258

Source: Compiled by authors and Stata 13 software

Additionally, Table 3 also demonstrates the correlation among independent variables. The outcome shows that VIF coefficients < 2 (table 3); an attribute of independent variables has VIF coefficients smaller than 2, so it can be confirmed that 100% of all independent variables do not have autocorrelation (Ditzen, 2018).

Table 5: Results of heteroskedascity (estat hottest)

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of ROA	
chi2(1)	= 16.07
Prob > chi2	= 0.0001

Source: Compiled by authors and Stata 13 software

The result of Table 5 with Prob. $> \text{Chi}2 = 0.0001 < 0.05$ is relevant to a phenomenon of variable variance. That means the research model is not consistent with the input data. Therefore, there is a need to use the model at a higher level (Bryman & Cramer, 2001). The higher-level models are the fixed-effects regression model (FEM) and the random-effects model (REM) (Kohler & Kreuter, 2005).

FEM and REM

Table 6: FEM model with attributes

<code>xtreg ROA MS, fe</code>	
Fixed-effects (within) regression	Number of obs = 90
Group variable: ID	Number of groups = 18
R-sq: within = 0.1640	Obs per group: min = 5
between = 0.0439	avg = 5.0
overall = 0.0441	max = 5
	F(1, 71) = 13.92
corr(u_i, Xb) = -0.7937	Prob > F = 0.0004

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
MS	-.322051	.086306	-3.73	0.000	-.4941403	-.1499617
_cons	.0337917	.0048337	6.99	0.000	.0241536	.0434299
sigma_u	.0156817	(fraction of variance due to u_i)				
sigma_e	.00580846					
rho	.87935747					
F test that all u_i=0:			F(17, 71) = 13.49	Prob > F = 0.0000		

Source: Compiled by authors and Stata 13 software

Table 6: REM model with attributes

xtreg ROA MS, re	
Random-effects GLS regression	Number of obs = 90
Group variable: ID	Number of groups = 18
R-sq: within = 0.1640	Obs per group: min = 5
between = 0.0439	avg = 5.0
overall = 0.0441	max = 5
corr(u_i, X) = 0 (assumed)	Wald chi2(1) = 6.51
	Prob > chi2 = 0.0107

ROA	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
MS	-.116876	.045814	-2.55	0.011	-.2066698	-.0270822
_cons	.0223931	.0034643	6.46	0.000	.0156032	.0291831
sigma_u	.00925629	(fraction of variance due to u_i)				
sigma_e	.00580846					
rho	.7174762					

Source: Compiled by authors and Stata 13 software

Comparing FEM and REM by Hausman test to choose the optimal model.

Table 7: Results comparing FEM and REM models

---- Coefficients ----

I

	(b) FEM	(B) REM	(b-B) Difference	$\sqrt{\text{diag}(V_b - V_B)}$ S.E.
MS	-.322051	-.116876	-.205175	.0731423

b = consistent under H_0 and H_a ; obtained from xtreg

B = inconsistent under H_a , efficient under H_0 ; obtained from xtreg

Test: H_0 : difference in coefficients not systematic

$$\chi^2(9) = (b-B)'[(V_b - V_B)^{-1}](b-B)$$

$$= 7.87$$

$$\text{Prob} > \chi^2 = 0.0050$$

($V_b - V_B$ is not positive definite)

Source: Compiled by authors and Stata 13 software

Table 7 shows that H_0 : difference in coefficients is not systematic, meaning that there is no difference between the FEM and REM models; therefore, the REM model is selected (Kohler & Kreuter, 2005). However, it is necessary to retest heteroscedasticity with estat hottest.

Table 8: Results of the estat hottest test of the observed variable
Breusch and Pagan Lagrangian multiplier test for random effects

$$ROA[ID,t] = Xb + u[ID] + e[ID,t]$$

Estimated results:

	Var	sd = sqrt(Var)
ROA	.0001191	.0109126
E	.0000337	.0058085
U	.0044662	.0092563

Test: Var(u) = 0

chibar2(01) = 79.22

Prob > chibar2 = 0.0000

Source: Compiled by authors and Stata 13 software

Table 8 shows that Prob > Chibar2 = 0.0000 < 0.05: This means there is a phenomenon of variable variance, i.e., the research model is inconsistent with the input data. Thus, for the observed variable, ROA need to use the final regression, which is GLS regression (Torres-Reyna, 2007).

GLS regression

Table 9: xtglS ROA MS, panels(iid) corr(independent)

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares

Panels: homoskedastic

Correlation: no autocorrelation

Estimated covariances = 1

Number of obs = 90

Estimated autocorrelations = 0

Number of groups = 18

Estimated coefficients = 2

Time periods = 5

Wald chi2(10) = 4.16

Log likelihood = 281.4351

Prob > chi2 = 0.0415

ROA	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
MS	-.0510715	.0250544	-2.04	0.042	-.1001772	-.0019658
_cons	.0187373	.0017855	10.49	0.000	.0152378	.0222369

Source: Compiled by authors and Stata 13 software

In Table 9, we see that the regression equation of competitiveness affecting financial performance of commercial banks ROA is ROA = .0250544 MS.

5. DISCUSSION AND IMPLICATIONS

From a theoretical perspective, the research has clarified the impact of competitiveness on the financial performance of commercial banks listed on the Ho Chi Minh stock market. The standardized regression coefficient (Std. Err) is .0250544, confirming a positive effect.

There will be 49 banks in Vietnam by the end of 2021. 31 banks, including 3 state-owned joint stock commercial banks, 4 100% state-owned banks, policy banks, and joint venture banks with 2 banks each, 100% foreign capital, 9 banks, and 1 cooperative bank, make up the majority of joint stock commercial banks (State Bank of Vietnam, 2021).

Customers must create new goods in order to maintain operational competitiveness, which is measured by metrics including productivity, financial market share, differentiation, profitability, pricing, cost, product diversity, efficiency, value creation, and responsiveness. The ability of assets to produce output, management procedures, and operational capabilities are the three categories of factors that are related to competitiveness and the measuring of a business's competitiveness.

Bhattacharya and Thakor (1993) and Berger & Bouwman (2009) assert that commercial banks are essential to the economy because they control risks and provide liquidity. Vietnam's commercial banking sector is the backbone of the nation's economy, providing 60% to 80% of the capital requirements due to the underdeveloped stock market in the country (Le, 2019). The system's credit scale rose more quickly as a result of the growing requirement for cash for business and industry. Banks have an incentive to encourage liquidity since it increases profitability (Duan & Niu, 2020) and bank value (Berger & Bouwman, 2009), making illiquid assets more moveable assets. This is because illiquid assets create income.

Banks must make greater investments in information and communication technology (ICT) and cutting-edge technologies to adapt swiftly to the market's explosive expansion and remain viable in a highly competitive environment. shifts in the digital economy and financial markets. It is also regarded as a tool for cutting expenses and having successful conversations with individuals and groups engaged in the banking industry. Information technology makes it possible to build sophisticated products, improve market infrastructure, apply trustworthy risk management strategies, and assist financial intermediaries in reaching a variety of geographically inaccessible markets. From there, it helps to improve financial performance and competitiveness.

6. CONCLUSIONS

This study is done to investigate the impact of competitiveness on the financial performance of commercial banks listed on the HSX in the context of Vietnam. The observed variable competitiveness has a positive impact on the financial performance of commercial banks listed on the HSX.

Some of the limitations of this study include the small size of the research sample and the focus of the research on space being limited to commercial banks that are listed on the stock market in Ho Chi Minh City.

In the context of developing nations like Vietnam, more study on internal and external determinants in the same sector of the bank industry is found and analyzed, as is a comparison of internal and external causes in various industries.

This study is not only meaningful for commercial banks in formulating measures to improve financial performance and expand business scale based on competitiveness, but also useful for researchers when they investigate business administration, finance, and accounting.

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