ISSN:1533-9211
SEYBOLD REPORT
www.seybold-report.com

The impact of credit appraisal on lending efficiency of Vietnamese commercial banks

ISSN: 1533 - 9211

VU CAM NHUNG[1]*, LUU PHUOC VEN[2]

[1]Industrial University of HoChiMinh City, Vietnam

[2] Faculty of Economics and Business Administrator, An Giang University, VNU-HCM, Vietnam

CORRESPONDING AUTHOR:

VU CAM NHUNG
vucamnhung@iuh.edu.vn

Abstract

Commercial banks play a very important role in the economic growth of nations, in which lending is the largest source of income for banks but they face the risk of default from borrowers. This indicates credit appraisal plays a very important role in reducing non-performing loan and increasing the efficiency of banks' lending activities. However, there are no studies focusing on the influence of appraisal on the loan performance of Vietnam commercial banks. This study aims to evaluate the impact of credit appraisal on the lending efficiency of Vietnamese commercial banks, explicitly assessing six factors including borrower's character, capacity, capital, purpose of the loan, collateral and conditions for lending efficiency. The primary data was collected from the heads of the customer relations department, individual customer relation officers, corporate customer relation officers, credit appraisers and debt collection managers of 31 Vietnamese commercial banks with 540 questionnaires. The Statistical Software Package for Science Society (SPSS) software was used for data analysis and the research findings presented using frequency and percentage tables. Regression coefficients show that there is only one negative factor which is the purpose of the loan, the remaining five factors have a positive influence on lending efficiency: the borrower's character, capacity, capital source, purpose of using the loan, collateral, and other conditions. The study recommends that banks should conduct thorough credit appraisal before lending because this helps improve their profitability by reducing non-performing loan.

KEYWORDS:

Credit appraisal; Lending efficiency; Vietnam commercial banks

Received: 09 November 2023
Accepted: 24 November 2023
Published: 01 December 2023

TO CITE THIS ARTICLE:

NHUNG, V. C., & VEN, L. P. (2023). The impact of credit appraisal on lending efficiency of Vietnamese commercial banks. *Seybold Report Journal, 18(10)*, 5-22. DOI: 10.5110/77. 1080

INTRODUCTION

All countries identify financial stability as the foundation for economic growth, a condition for macroeconomic stability, including the banking sector. Therefore, a strong and vibrant banking sector is important to a flourishing economy, banking operations have received much attention from society, especially banking efficiency, one of the most important factors that directly impacts a bank's business performance is bad debt; failure of the banking sector has a negative impact on other sectors of the economy through the provision of credit (Owino, 2013). Commercial banks' ability to manage credit effectively is crucial to their profitability because the majority of their revenue comes from interest on loans provided to small and medium-sized enterprises (Njeru et al., 2016). The proper application of lending regulations can increase this revenue and, if done so successfully, have an impact on profitability and financial performance. Lenders use different lending policies to improve efficiency and coordination of asset investment activities, which benefits the financial performance of commercial banks (Ong'era, 2016). The industrial revolution accelerated commercial and production activity, necessitating a substantial amount of project capital, which led to the development of lending practices around the world. Many industry leaders during this period were unable to cope with the sudden increase in financing requirements and therefore turned to banks for assistance (Okoye & Eze, 2013). Poor loan enforcement, ambiguous information regarding borrowers' ability and willingness to repay, a lack of history on prospective borrowers, poor repayment behavior, insufficient collateral, and insufficient repayment guarantees are some lending issues (Kusi et al., 2017). According to Misati and Kamau (2015) Credit appraisal is still at the core of the decision-making process that results in the granting of credit to borrowers, and it is primarily done to determine whether to accept or reject a loan proposal. It entails assessing loan applications to determine a borrower's capacity for repayment. During performing due diligence, a borrower's creditworthiness and anticipated future cash flows are evaluated in light of the level of risk attached to that specific borrower (Njeru et al., 2016). According to Ahmed and Malik (2015), the aspects that are concentrated on appraisal include the borrower's ability to repay the loan, the loan amount, the certainty, and the borrower's objective.

According to (Byusa & Nkusi, 2012), commercial banks should assess the creditworthiness of customers with the help of the 5Cs: characteristics, capacity, capital, collateral and conditions to improve loan loss. Research shows that low credit appraisal quality is the main cause of bad debt in banks. The purpose of a credit appraisal is to determine the borrower's ability and willingness to repay the loan required under the terms of the loan agreement (Karumba & Wafula, 2012). Hasty credit appraisal will not only endanger the bank but also depositors and investors (Mercylynne & Omagwa, 2017). When properly applied, credit risk assessment methods have the potential to increase the profitability of commercial banks for a time by minimizing losses (Chavan & Gambacorta, 2016). After the recent financial crisis, the number of bankrupt banks is increasing, leading to many complex and difficult problems. Then, the financial market has focused more on the business efficiency of the commercial banking system and especially bad debt because there is evidence that bank credits have an impact on financial stability. Banks are financial intermediaries, banks mobilize capital to lend. If the bank's loans generate bad debt, it will not only affect business performance but also greatly affect liquidity of the bank when depositors withdraw their deposits at any time they need. According to statistics of the State Bank, the end of the second quarter of 2023, the total non-performing loan of 27 listed banks was VND 188,641.24 billion; an increase of 66,419.74 billion VND compared to the same period in 2022 (122,221.5 billion VND). The industry's on-balance sheet bad debt (NPL) ratio is at 2.07%; an increase of 0.57% compared to the second quarter of 2022. Moreover, accumulated for the first 6 months of 2023, the after-tax profit of 27 listed banks reached more than 103,462 billion VND; a slight decrease of 1.3% compared to VND 104,780 billion in the same period in 2022. In Vietnam Banking Industry Development Strategy to 2025, Orientation to 2030 (Strategy) issued and approved by the Prime Minister under Decision No. 986/QD-TTg dated August 8, 2018 (Minister, 2018) is a important document to demonstrate a long-term vision, ensuring the overall and sustainable development of the entire Industry. Therefore, banking stability is also identified as a very important goal of the banking system. To enhance bank stability, improve efficiency and reduce non-performing loan in the coming period, assessing the impact of credit appraisal on lending efficiency of Vietnam commercial banks is necessary. However, there are no studies focusing on the impact of credit appraisal on the loan performance of Vietnam commercial banks. The following contents of this research paper are organized as follows: part 2 presents literature review; part 3 decribes research methods; part 4 presents research results and discussion; part 5 presents conclusions and recommendations.

LITERATURE REVIEW

The Financial intermediation theory

According to Benston and Smith (1976), banks mobilize capital to provide credit to the economy, mobilized capital is mainly short-term, so banks need to focus on investing in short-term assets through credit activities. short-term use, this will help balance between assets and capital, ensuring the bank's liquidity. However, the arising of overdue debts and bad debts seriously affected the bank's liquidity, the bank could not guarantee the timely or early withdrawal of capital of the depositors. Therefore, the role of commercial banks is not only mobilizing capital to meet the needs of the economy but also improving the efficiency of credit activities.

Asymmetric information theory

According to Akerlof (1970) in many markets, buyers use a number of market statistics to measure the value of a good. Thus, buyers see the average of the whole market while sellers have deeper knowledge of a particular item. This information asymmetry encourages sellers to sell goods of lower quality than the market average. The average quality of the goods in the market will then decrease with the size of the market. Such differences in social returns and private interests can be mitigated by a number of different market institutions. The theory of asymmetric information argues that it may not be possible to distinguish good borrowers from bad borrowers (Auronen, 2003). This can lead to adverse selection problems and moral hazard leading to bad debt.

Moral hazard theory

According to Akerlof (1970), moral hazard refers to a risk parameter that becomes important after a financial contract is agreed and signed by both parties. The issue of moral hazard suggests that borrowers have an incentive to default unless there are consequences for their credit information in the future (Cincinelli & Piatti, 2017) or have negative effects on their future credit requests. Failure to access a borrower's previous credit history creates moral hazard, which can result in lenders imposing strict interest rates, inadequate and strict borrower appraisal, eventually caused credit markets to crash (Odhiambo & Ndede, 2019). Moral hazard as defined by (Nayyar, 1990) is the problem arising from the seller's inability to witness the behavior of the buyer. The difference between moral hazard and adverse selection is that adverse selection occurs before the transaction because one party does not have sufficient knowledge of the other party's attributes. On the other hand, moral hazard occurs after the transaction has occurred because the borrower or buyer may engage in acts without the knowledge of the lender.

In their lending activities, banks face both adverse selection and moral hazard problems. Moral hazard occurs when lenders are not able to monitor borrowers' behaviors that affect their ability to repay. Borrowers may be tempted to misallocate cash for personal gain or to engage in inefficient risky activities solely for the sake of personal power or status. If projects fail, lenders lose money. Banks face moral hazard due to opportunistic behavior of borrowers (Jappelli & Pagano, 2000).

Empirical finding

Matanda, 2010 studied the effect of 7Cs credit appraisal model on the level of bad debt of commercial banks in Kenya. Customer ability was found to be the most important of all credit appraisal variables, followed by characteristics, conditions, collateral, contribution, general perception and control. In Pakistan, the analysis results showed that the customer appraisal methods have a positive and significant impact on lending performance, while collection policy and credit risk control had a positive but insignificant impact (Ahmed & Malik, 2015). In Rwanda, research showed that the appraisal of customers (borrower’s character, capacity, collateral); policies on credit risk control and debt collection had an impact on the financial performance of the commercial bank (Kagoyire & Shukla, 2016). (Kisaka, 2016) showed that the most influential variable is loan solvency, followed by credit reference report, historical context, loan collateral and credit limit were also considered important affect on loan performance in Kenyan commercial banks. Research by (Thisika & Muturi, 2017) determined that there exists a positive, strong and statistically significant relationship between credit appraisal and bad debt. (Semaye, 2018), evaluation of 5C credit appraisal tools (character, capacity, capital, collateral and conditions) to the level of bad debt of loans and advances -in the case of NIB SC International Bank. The results showed that collateral was the most important factor considered, and the bank believes that a strong collateral position will encourage borrowers' repayment habits for loans and advances. (Muriungi & Muturi, 2018) there was a significant positive relationship at the 95% confidence level between credit appraisal factors (borrower status, loan repayment ability) and lending efficiency of SACCO, Meru county, Kenya. (Ndero et al., 2019) there exists a significant positive relationship ($r=0.206$ and $p=0.035$) between credit appraisal and lending performance of commercial banks in Uasin Gishu County, Kenya. Khuat Duy Hai (2020) evaluated the achievements in credit appraisal activities in lending to business households at Vietnam Prosperity Commercial Joint Stock Bank in the period 2017-2019. State the limitations, causes of existence and propose solutions. Pham Van Huy (2021) presented the appraisal content, the factors affecting the appraisal, thereby proposing solutions improving the quality of investment project appraisal in lending activities of commercial banks. Hoang Ngoc Ha Anh (2016) the current status of appraisal and credit granting for FDI enterprises at Vietinbank Ba Ria Vung Tau. Proposing solutions to improve credit appraisal for FDI enterprises at Vietinbank. Trinh Tuyet Nhung (2016) assesses the current situation, proposes recommendations and solutions to improve credit appraisal in consumer lending activities of Techcombank.

In summary, there are quite a few studies on the influence of credit appraisal on the lending efficiency of banks in countries around the world. However, these studies have not shown a consensus on the criteria for assessing the influence of credit appraisal on loan performance. In addition, there are no studies on this content in Vietnam. Therefore, the author's study will examine the impact of credit appraisal through criteria on borrower's character, capacity, capital source, purpose of using the loan, collateral and other conditions for the lending efficiency of Vietnamese commercial banks.

RESEARCH METHODOLOGY

Hypothesis

Loan officers consider the age as well as the health of the potential borrower; the borrower's personal stability (borrower's dependents, marital status, type of job, current employment and whether it's a tenant or an owner) (Davies & Kearns, 1992). According to (Hussein & Muchemi, 2019) lifestyle as well as borrowers as well as relationships, honesty and goodwill of customers are the most important factors for a successful loan. Dishonest borrowers are determined to obtain a loan by any means possible, including misrepresentation, but they do not commit to repaying the loan (Tusiime et al., 2011). Therefore, the first hypothesis proposed is:

Hypothesis 1: Borrower's Character has a positive influence on the loan performance of commercial banks

According to (Wambugu, 2010) to know the borrower's ability to repay, banks often ask them to prove their income. In addition, banks may also require proof of employment to demonstrate they have a stable work and so a steady source of income. If they don't have a steady job or are self-employed, they may have to submit some other proof of how much they earn each year. The lenders will then evaluate the borrower's loan request by looking at many factors. So, the second hypothesis for the study is:

Hypothesis 2: Borrower's capacity has a positive effect on the loan performance of commercial banks

Lending practice in the world can be traced back to the period of the industrial revolution, which increased the speed of commercial and production activities, leading to the need for large capital for projects. Many industries during this period were unable to respond to the sudden increase in financial situation and therefore turned to banks for support (Okoye & Eze, 2013). The due diligence process involves assessing a borrower's creditworthiness and expected future cash flows given the level of risk associated with a particular borrower (Njeru et al., 2016). Not all borrowers have good internal governance and financial systems. This can lead to unexpected problems in meeting cash flow requirements, whether borrowers have enough capital to generate money or not? the amount of capital that the borrower invests in the business or how many sources of money invest in the business? The amount of capital invested by the customer in the business. Banks will feel more secure if customers have enough large equity. The third hypothesis for this study is:

Hypothesis 3: Borrower's capital has a positive effect on the loan performance of commercial banks

According to (Odhiambo, 2011) lending rates usually take into account the risk that the lender is expected to accept and that depends in part on the purpose of the loan. People borrow for different purposes that affect their repayment rates. Causes of default include unwillingness to repay along with borrower diversion of funds, willful negligence and improper appraisal by credit officers (Kabamba, 2012). The main causes of default on loans from the industrial sector were identified as improper selection of entrepreneurs, lack of project viability analysis, and failure to secure collateral for loans, unrealistic repayment terms and schedules (Berger & DeYoung, 1997). The fourth hypothesis for this study is:

Hypothesis 4: The purpose of using loan has a positive effect on the loan performance of commercial banks

According to (Wambugu, 2010) additional forms of security or security are provided by the borrower to the bank that can be sold if he defaults and the collection efforts become futile. According to (Tusiime et al., 2011) although cash flow from operating activities is said to be the main source of debt repayment, when the cash flow is not enough to materialize, the bank can minimize losses if the source is guaranteed. secondary debt repayment. According to (Kibanga, 2022), giving collateral to a lender means that you give property that you own, such as your home, to the lender with an agreement that it will be the main source of repayment. in case you are unable to repay the loan. In addition, there is another guarantee that someone else will sign the guarantee document promising to repay the loan to the borrower if the borrower is unable to pay (Kimeu, 2008). The value of the collateral must include the loan amount and interest due. So the fifth hypothesis put forward is:

Hypothesis 5: Loan collateral has a positive effect on the loan performance of commercial banks

In the case of industrial progress, the condition of the country and the position of the borrower in the industrial cycle at the time of the credit request are very important. The Bank must investigate existing business conditions and government regulations, consider the overall business cycle, the general condition of the entire industry in which this company is involved, international conditions may may affect the company and the technological developments taking place in the sector in which the company is engaged. Will the loan be used to meet working capital needs, purchase machinery or stockpile raw materials and inventory? If the economy is in a recession, will the company's sales be hit hard? The bank will assess the economic situation at home and abroad, analyze the business lines the business is operating as well as related activities that may affect the business (Sharma & Kalra, 2015). Besides, natural disasters can cause sudden changes in business performance, such as earthquakes, floods, and epidemics or the borrower suffers permanent disability or death, in addition to civil conflicts, terrorism and war. The sixth hypothesis put forward is:

Hypothesis 6: Other conditions have a positive effect on loan performance of commercial banks

Analytical methodology and sampling

This study was conducted through 2 parts:

(1) Preliminary study by collecting qualitative data through in-depth interviews with 10 people for the purpose of adjusting, supplementing and completing the survey scale and questionnaire.

(2) Quantitative research to collect information and analyze data for research purposes. Quantitative research is based on survey information collected through questionnaires made on a Likert scale of 5 points, from 1 (strongly disagree) to 5 (strongly agree).

Collected data is checked for completeness and accuracy, and analyzed using the Statistical Software Package for Scientific Society (SPSS) which was conducted through steps including descriptive statistics, check the scale reliability, exploratory factor analysis (EFA), correlation and regression analysis to evaluate the influence of credit appraisal on the efficiency loans from Vietnamese commercial banks.

The target population refers to the number of factors to which the researcher wants to generalize the research results (Mugenda & Mugenda, 2003). The size of the sample should not be too large nor too small. It must be optimal. The optimal sample is one that meets the requirements of efficiency, representativeness, reliability and flexibility (Kothari, 2004). The population of interest in the study includes all licensed commercial banks in Vietnam. As of June 2023, there are 31 licensed commercial banks. Therefore, this study constituted an investigation the sample of 540 repondents from 31 commercial banks were used for testing hypotheses. Respondents answered paper-based questionnaire. These surveys were conducted from a readily accessible pool of respondents from banking staff of commercial banks who were directly or indirectly involved to loan including 51 heads/deputies of the customer relations department, 223 individual customer relation officers, 118 corporate customer relation officers, 111 credit appraisers, 37 debt collection managers of commercial banks in the area. Data was collected in 4 weeks of July 2023.

Research model

On the basis of an overview of (Matanda, 2010), (Ahmed & Malik, 2015), (Kagoyire & Shukla, 2016), (Kisaka, 2016), (Thisika & Muturi, 2017), (Semaye, 2018), (Muriungi & Muturi, 2018), (Ndero et al., 2019) and the above 6 hypotheses, the researchers proposed a linear regression model as follows:

$Y= \beta0+ \beta1\ X1+ \beta2\ X2 + \beta3\ X3 + \beta4\ X4 + \beta5\ X5 + \beta6\ X6 + \acute{\varepsilon}$ will be derived to show the relationship between the dependent variable (Y) and the independent variable (X) where:

Y = loan performance is a dependent variable that will be measured using non-performing loans divided by the total number of loans

X1 = character

X2 = capacity

X3 = capital

X4 = purpose of using the loan

X5= collateral

X6= other conditon

β0 = is a regression Constant

β1, β2, β3, β4, β5, β6 = Regression Coefficients

έ = Error term normally distributed about the mean of zero

RESULTS

Descriptive statistics

Table 1 Education level

	Frequency	Percent	Valid Percent	Cumulative Percent
Bachelor	485	89.8	89.8	89.8
Master	55	10.2	10.2	100.0
Total	540	100.0	100.0	

Source: authors' research

Most of the surveyed people have a bachelor's degree or higher, out of 540 respondents, 485 people have a university degree, accounting for 89.8%, and 55 people have a graduate degree, accounting for 10.2%.

Table 2 Respondents' experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Less 1 year	24	4.1	4.4	4.4
1– 3 year	84	15.6	15.6	20.0
4- 6 year	264	48.9	48.9	68.9
7 – 9 year	119	22.0	22.0	90.9
Over 10 year	49	9.1	9.1	100.0
Total	540	100.0	100.0	

Source: authors' research

Total of 540 questionnaires, 84 respondents have worked for less than 1 year, accounting for 15.6%, 264 respondents have worked for 1-3 years, accounting for 15.6%, and from 4-6 years 264 people account for 48.9%, from 7-9 years, there are 119 people, accounting for 22.0%, and from 10 years or more, there are 49 people, accounting for 9.1%.

Reliability and validity of the scale

This study uses Cronbach's Alpha testing to check scale reliability and explore factor analysis (EFA) to test the internal consistency of the scale. The results show that the coefficients of Cronbach's Alpha of all factors are greater than 0.6. At the same time, the variable correlation coefficients - the sum of the measured variables are all greater than 0.3. Thereby, this result shows that all variables have high relevance and reliability. Therefore, the scale is suitable and reliable, so it will be used for EFA analysis. From Table 3, it can be seen that the KMO coefficient of 0.750 has satisfied the condition 0.50 < KMO < 1, so it can be said that EFA is suitable for the research data set. Besides, the results of Bartlett's Test of the scale give a chi-squared value of 6136.271 and a Sig. is 0.000 < 0.005. From that, it can be conclude that these variables are correlated with each other and this analytical model is appropriate.

Table 3 Validity of the scale results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.750
Bartlett's Test of Sphericity	Approx. Chi-Square	6136.271
	Df	300
	Sig.	0.000

Source: authors' research

Table 4 show that Eigenvalue of all factors are guaranteed to be greater than 1, so all are kept for EFA analysis. Total variance reached 66.167% (greater than 50%). This shows that the 6 drawn factors explain 66.167% of the variation of the data set. In addition, the factor loading coefficients of 25 observed variables of the independent variables were greater than 0.5, so these variables have reliability and practical significance. In summary, after EFA analysis, 6 independent factors with 25 observed variables in the original model were eligible to be retained in the model and all will be included in the regression analysis.

Table 4 Eigenvalues, extraction sums of squared loadings, rotation sums of squared loadings

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.446	17.785	17.785	4.446	17.785	17.785	3.463	13.852	13.852
2	3.451	13.804	31.589	3.451	13.804	31.589	2.974	11.897	25.749
3	2.775	11.099	42.688	2.775	11.099	42.688	2.928	11.712	37.461
4	2.316	9.262	51.950	2.316	9.262	51.950	2.789	11.157	48.618
5	1.898	7.593	59.543	1.898	7.593	59.543	2.224	8.896	57.514
6	1.656	6.624	66.167	1.656	6.624	66.167	2.163	8.654	66.167

Extraction Method: Principal Component Analysis.

Source: authors' research

Correlation analysis

Results in table 5 show that there are a positive relationship between the borrower's character, capacity, capital, collateral, other conditions and loan performance when the correlation coefficient were 0.265; 0.337; 0.405; 0.613; 0.279. There is also a negative relationship between purpose of using the loan and loan performance when there is a negative correlation coefficient of 0.155. There are six independent variables (character, capacity, capital, purpose of using the loan, collateral, other conditions) that have a significant influence on the dependent variable (lending efficiency) at 99% confidence, has a p-value lower than the alpha value of 0.05. Therefore, the study results determine that there is a positive effect of the independent variables on the dependent variable.

Table 5 Correlation matrix

		Loan performance	Character	Capacity	Collateral	Other condition	Capital	Purpose of using the loan
Lending efficiency	Pearson Correlation	1	.265**	.337**	.405**	.613**	.279**	-.155**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	540	540	540	540	540	540	540
Character	Pearson Correlation	.265**	1	.220**	.135**	.151**	.036	-.139**

	Sig. (2-tailed)	.000		.000	.002	.000	.403	.001
	N	540	540	540	540	540	540	540
Capacity	Pearson Correlation	.337**	.220**	1	.223**	.208**	.091*	-.029
	Sig. (2-tailed)	.000	.000		.000	.000	.035	.506
	N	540	540	540	540	540	540	540
Collateral	Pearson Correlation	.405**	.135**	.223**	1	.265**	.163**	.102*
	Sig. (2-tailed)	.000	.002	.000		.000	.000	.018
	N	540	540	540	540	540	540	540
Other condition	Pearson Correlation	.613**	.151**	.208**	.265**	1	.151**	-.061
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.158
	N	540	540	540	540	540	540	540
Capital	Pearson Correlation	.279**	.036	.091*	.163**	.151**	1	.000
	Sig. (2-tailed)	.000	.403	.035	.000	.000		.991
	N	540	540	540	540	540	540	540
Purpose of using the loan	Pearson Correlation	-.155**	-.139**	-.029	.102*	-.061	.000	1
	Sig. (2-tailed)	.000	.001	.506	.018	.158	.991	
	N	540	540	540	540	540	540	540

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: authors' research

Regression results

Table 6 show that the Sig value of the F test is 0.000 < 0.05, so the regression model is considered appropriate.

Table 6 ANOVA Result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	361.216	6	60.203	97.434	.000[b]
	Residual	329.332	533	.618		
	Total	690.547	539			

a. Dependent Variable: lending efficiency

b. Predictors: (Constant), character, capacity, capital, purpose of using the loan, collateral, other conditions

Source: authors' research

The summary results of the model in Table 7 show that the adjusted R-squared value is equal to 0.518, which show that the independent variables included in the regression analysis affected 51.8% of the variation of the dependent variable, the rest 49.2% was due to out-of-model variables and random error. Besides, the Durbin–Watson value was 1.983 - in the range of 1.5 to 2.5 so the results does not violate the first-order sequence autocorrelation assumption.

Table 7 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.723[a]	0.523	0.518	0.78606	1.983

a. Predictors: (Constant), character, capacity, capital, purpose of using the loan, collateral, other conditions

b. Dependent Variable: lending efficiency

Source: authors' research

The results of the regression model presented in Table 8 show that there are six variables including character, capacity, capital, purpose of using the loan, collateral, other conditions all have an impact on lending efficiency with Sig < 0.05. In which, there are five variables that tend to have a positive impact on lending efficiency because of the positive regression coefficient Beta which are character, capacity, capital, purpose of using the loan, collateral, other conditions. In contrast, only the purpose of using the loan has a negative effect on the lending efficiency variable because the regression coefficient Beta has a negative value. Factor other conditions (standardized beta = 0.477) has the strongest impact, collateral factor (standardized beta = 0.219) has the second, capital factor (standardized beta = 0.154) has the third, capacity factor (standardized beta = 0.147) has the fourth, the factor of purpose of using the loan (standardized beta = 0.129) has the fifth and the remaining factor is character (standardized beta = 0.108). Besides, the variance exaggeration factor VIF < 10 show that the independent variables are not closely related, so multicollinearity does not occur.

The regression equation of the research model has the following form:

$Y = 0.108X1 + 0.147X2 + 0.154X3 – 0.129X4 + 0.219X5 + 0.477X6$

Table 8 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.128	0.287		-3.937	0.000		
	Character	0.157	0.045	0.108	3.448	0.001	0.917	1.091
	Capacity	0.204	0.044	0.147	4.663	0.000	0.895	1.118
	Collateral	0.268	0.039	0.219	6.831	0.000	0.867	1.154
	Other condition	0.566	0.038	0.477	15.006	0.000	0.884	1.131

Capital	0.193	0.038	0.154	5.053	0.000	0.959	1.042
Purpose of using the loan	-0.153	0.036	-0.129	-4.219	0.000	0.960	1.041

a. Dependent Variable: lending efficiency

Source: authors' research

DISCUSSION

This shows that when other factors are held constant, if the borrower's character increases 100%, the lending efficiency will be significantly positively adjusted 10.8%. In addition, when other factors are constant, if the borrower's capacity increases 100%, the lending efficiency will increase 14.7%. Besides, when other factors are constant, if the borrower's capital increases 100%, the lending efficiency will increase 15.4%; when other factors are constant, if the purpose of using the loan increases 100%, the loan performance will decrease 12.9%; when other factors are held constant, if collateral increases 100%, it will increase lending efficiency 21.9% and other factors unchanged if other conditions increase 100%, it will increase loan performance 47.7%. This result is similar to the research results of (Ahmed & Malik, 2015), (Semaye, 2018), (Ndero et al., 2019) in the "character, capacity, capital, collateral, other conditions" factors affect the loan performance of commercial banks, but the difference is that these three authors do not consider the "purpose of loan use" factor that affects the bank's loan performance. This result is different from the research results of (Kagoyire & Shukla, 2016), (Kisaka, 2016), (Muriungi & Muturi, 2018), (Thisika & Muturi, 2017), (Matanda, 2010) in the "capital" factor was not included in the credit assessment by these authors.

According to us, all contents in credit appraisal (borrower's character, capacity, capital, purpose of using the loan, collateral, other conditions) are affected the loan performance of commercial banks, specifically "character, capacity" are considered as factors to make a loan and it can be confirmed that the bank considers this factors to ensure that borrowers have the ability to repay the money they have borrowed, in addition, lending efficiency is measured using non-performing loans divided by the total number of loans. Therefore, if the customer repays the loan on time, it will ensure a safe loan from bad debt, bringing the desired effect to the bank. We believes that the factor "purpose of using the loan" needs to be included in credit appraisal because borrowers use the capital for the right purpose of borrowing to be able to generate cash flow to repay the loan on time for the bank and ensure compliance with regulations of the State Bank of Vietnam on regulations on lending to customers of commercial banks. In addition, it is necessary to carefully appraise the "borrower's capital" because the bank cannot lend 100% of the capital needs, it is necessary to balance and harmonize the sources of capital and to ensure that the borrower is more responsible when use bank capital besides own capital. In addition, the “value of collateral” for the loan is a key feature in any lending activity and determines the loan value, collateral is the most basic consideration before providing credit to the borrower as it is the bank's basis for providing incentives to the customer. Finally, “other conditions” such as government policies, supply risks, competitive context... also affect the bank's loan performance, so it is necessary to carefully appraisal this content.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study focuses on analyzing the impact of credit appraisal on lending efficiency of Vietnamese commercial banks. The research results show that only the purpose of using the loan is a negative influence, the remaining five factors are the borrower's character, capacity, capital, collateral, other conditions which have a significant positive impact on the lending efficiency of commercial banks. In addition, this study is a useful reference for other researchers who want to do more research on the factors affecting the lending efficiency of commercial banks.

Recommendations

From the research results, the authors propose some recommendations to improve the quality of credit appraisal for the lending efficiency of commercial banks:

Firstly, borrower's character: in order to ensure the borrower's willingness to repay, the bank needs to carefully appraisal factors when assessing their personality through age, education level, gender, marital status, credit history, relationship with business partners... this information the bank can collect from the borrower, the customer's old document, the state bank, business partners, and the mass media.

Secondly, borrower's capacity: banks need accurately assess revenue and expenditure sources before lending to ensure that the customer's loan plan is feasible, regularly customers' receipts and expenditures after lending to ensure their ability to repay loans on time.

Thirdly, borrower's capital: consider and carefully analyze the sources of capital of the borrower to invest in the business, in the loan plan/project, the ability to meet capital sources for business activities or consumption needs.

Fourthly, purpose of using the loan: assessing the ability to repay the loan, the accurate assessment and controlling the correct use of loans is also very important because it limits the use of borrowed money for the wrong purposes and does not generate cash flow to repay the bank, increases bad debt, affects lending efficiency, waste of resources in the economy.

Fifth, collateral: the value and liquidity of collateral is an extremely important factor in determining the loan-to-capital demand ratio as well as deciding the lending interest rate of customers. Therefore, bank staff need to carefully evaluate the legality, superiority, advantages as well as limitations of collateral in order to help the bank increase the value of loan capital, offer reasonable interest rates to ensure competitiveness and increase lending efficiency.

Sixth, other conditions: banks need to pay attention to the borrower's competitive landscape in their business environment, supply risks, fluctuations in supply and demand, the instability of the borrower's employment, the rate of inflation or unemployment, etc. affecting the business performance or income of the borrower; grasp the trends of the financial market, changes in the State's operating strategy for the banking sector and banking policies on lending.

Implications

To increase profitability, banks promote lending activities and should conduct strict, objective credit appraisals in accordance with regulations to reduce bad debt. Furthermore, depending on their risk appetite, banks can use this research results to devise appropriate lending regulations and business strategies to increase customer lending efficiency in different areas. In addition, this research result also has important academic implications in the content of credit appraisal, not only internal factors of customers such as personality, financial capacity... but also external factors as war, epidemics, natural disasters.

Limitations and suggestion for future studies

In the group's research, due to time constraints, the authors have not surveyed other types of banks that the author has not mentioned in this study such as state-owned commercial banks, policy banks and other financial institutions. Besides, the authors have not been able to study other indicators that also impact the lending efficiency of commercial banks such as economic policies, inflation, banking digital technology, etc. are also a suggestion for further research directions.

The research was conducted on commercial banks in Vietnam. These findings could be verified by conducting similar research in other countries. This will help determine whether other countries have similar or different results.

COMPETING INTERESTS

The authors have no competing interests to declare.

Author's Affiliation

VU CAM NHUNG[1]*, LUU PHUOC VEN[2]

[1]Industrial University of HoChiMinh City, Vietnam

[2] Faculty of Economics and Business Administrator, An Giang University, VNU-HCM, Vietnam

HOW TO CITE THIS ARTICLE:

NHUNG, V. C., & VEN, L. P. (2023). The impact of credit appraisal on lending efficiency of Vietnamese commercial banks. *Seybold Report Journal*, *18(10)*, 5-22. DOI: 10.5110/77. 1080

REFERENCES

Ahmed, S. F., & Malik, Q. A. (2015). Credit risk management and loan performance: Empirical investigation of micro finance banks of Pakistan. *International Journal of Economics and Financial Issues*, *5*(2), 574-579.

Akerlof, G. (1970). The market for'lemons': Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, *84*(3), 488-500.

Auronen, L. (2003). Asymmetric information: theory and applications. Seminar of Strategy and International Business as Helsinki University of Technology,

Benston, G. J., & Smith, C. W. (1976). A transactions cost approach to the theory of financial intermediation. *The Journal of Finance, 31*(2), 215-231.

Berger, A. N., & DeYoung, R. (1997). Problem loans and cost efficiency in commercial banks. *Journal of Banking & Finance*, *21*(6), 849-870. https://doi.org/https://doi.org/10.1016/S0378-4266(97)00003-4

Byusa, V., & Nkusi, D. (2012). The effects of credit policy on bank performance: Evidence from selected Rwandan Commercial banks. *Rwanda Journal*, *26*, 116-119.

Chavan, P., & Gambacorta, L. (2016). Bank lending and loan quality: the case of India. 1-24.

Cincinelli, P., & Piatti, D. (2017). Non performing loans, moral hazard & supervisory authority: The italian banking system. *Journal of Financial Management, Markets and Institutions*(1), 5-34.

Davies, A., & Kearns, M. (1992). Banking operations: UK lending and international business. *(No Title)*.

Hoang Ngoc Ha Anh. (2016). *Some solutions to improve the credit appraisal of FDI enterprises at Vietinbank Ba Ria Vung Tau branch* Doctoral dessertation, HaNoi University of Science and Technology.

Hussein, S. S., & Muchemi, A. (2019). Michael Porters five forces on performance of savings and credit cooperative societies in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, *3*(7), 14-35.

Jappelli, T., & Pagano, M. (2000). *Information sharing in credit markets: a survey*.

Kabamba, K. (2012). Liquidity management and growth of microfinance institutions in Uganda (Case Study in Kibuku). *Makerere University, Uganda*.

Kagoyire, A., & Shukla, J. (2016). Effect of credit management on performance of commercial banks in Rwanda (a case study of Equity Bank Rwanda Ltd). *International journal of business and management review*, *4*(4), 1-12.

Karumba, M., & Wafula, M. (2012). *Collateral lending: Are there alternatives for the Kenyan banking industry?* (3).

Khuat Duy Hai. (2020). *Credit appraisal in business household lending at Vietnam Thinh Vuong Commercial Joint Stock Bank* Master Theses, Vietnam National University, Hanoi.

Kibanga, J. K. (2022). Risk management on member advancement of licensed deposit taking saccos in nairobi city county, kenya. *International Research Journal of Economics and Finance*, *4*(3), 1-17.

Kimeu, T. K. (2008). *A survey of credit risk management techniques of unsecured bank loans of commercial banks in Kenya* MBA, University Nairobi.

Kisaka, G. (2016). *Effect of Credit rating practices on loan book performance of commercial banks in Kenya* University of Nairobi].

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kusi, B. A., Agbloyor, E. K., Ansah-Adu, K., & Gyeke-Dako, A. (2017). Bank credit risk and credit information sharing in Africa: Does credit information sharing institutions and context matter? *Research in International Business and Finance*, *42*, 1123-1136.

Matanda, W. J. (2010). *The effect of 7Cs credit appraisal model on the level of non-performing advances of commercial banks in Kenya*

Mercylynne, M. W., & Omagwa, J. (2017). Credit Risk Management and Financial Performance Of Selected Commercial Banks In Kenya. *IOSR Journal of Business and Management (IOSR-JBM)*, *19*(11), 92-98.

Minister, P. (2018). *Decision 986/QD-TTg dated August 8, 2018 of the Prime Minister on approving the development strategy of Vietnam's banking industry until 2025, with a vision to 2030*.

Misati, R. N., & Kamau, A. (2015). *Local and international dimensions to credit provision by commercial banks in Kenya* (14).

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative apporaches* (Vol. 2). Acts press Nairobi.

Muriungi, P. M., & Muturi, W. (2018). Influence of Credit Appraisal on Loan Performance of Deposit Taking Saccos in Meru County. *International Journal Of Advanced Research in Engineering& Management*, *4*(10), 39-65.

Nayyar, P. R. (1990). Information asymmetries: A source of competitive advantage for diversified service firms. *Strategic Management Journal*, *11*(7), 513-519.

Ndero, S. W., Wepukhulu, J. M., & Bogonko, J. B. (2019). Relationship between credit appraisal and loan performance by commercial banks in uasin gishu county, kenya. *European Journal of Economic and Financial Research, 3*(4), 16-29.

Njeru, M., Shano, M., & Wachira, A. (2016). Effectiveness of credit appraisal on loan performance of commercial banks in Kenya. *International Journal of Recent Engineering Research and Development*, *1*(6), 9-14.

Odhiambo, F. O., & Ndede, F. W. (2019). Credit Information Sharing Practices and Financial Performance of Commercial Banks in Kenya. *International Journal of Current Aspects*, *3*(6), 67-82.

Odhiambo, J. (2011). *The relationship between working capital management and financial performance of deposit taking savings and credit co-operative societies licensed by SACCO societies regulatory authority in Nairobi county* Doctoral dessertation, University of Nairobi.

Okoye, V., & Eze, O. R. (2013). Effect of bank lending rate on the performance of Nigerian deposit money banks. *International journal of business and management review*, *1*(1), 34-43.

Ong'era, J. O. (2016). *Influence of loan lending policies on financial performance of Commercial Banks Kisii Town* Doctoral dessertation, JOOUST.

Owino, M. O. (2013). *The effect of the lending policies on the levels of non-performing loans (NPLS) of commercial banks in Kenya* University of Nairobi].

Pham Van Huy. (2021). Improving the quality of investment project appraisal in commercial banks' lending activities. Retrieved 13/5/2023, from

Semaye, A. (2018). *Assessment of 5C's credit appraisal tools and the level of nonperforming loans and advances-in the case of NIB International Bank SC* St. Mary's University].

Sharma, S., & Kalra, P. (2015). An overview of credit appraisal system with special reference to micro small and medium enterprise (MSME). *Pacific Business Review International*, *7*(11), 95-106.

Thisika, L., & Muturi, W. (2017). Effects Of Credit Risk Management On Loan Performance In Kenyan Commercial Banks. *International Journal of Economics, Commerce and Management*, *5*(9), 486-496.

Trinh Tuyet Nhung. (2016). *Credit appraisal in consumer lending activities at Vietnam Technological and Commercial Joint Stock Bank* Doctoral dessertation, Vietnam National University, Hanoi].

Tusiime, I., Nkundabanyanga, S. K., & Nkote, I. N. (2011). Corporate governance: Ownership structure, board structure and performance of public sector entities. *3*(9), 250-260.

Wambugu, E. M. (2010). *Credit risk management practices in savings and credit cooperative societies (SACCOs) offering Front Office Service Activity (FOSA) in Kenya* University of Nairobi, Kenya.

https://www.sbv.gov.vn/webcenter/portal/vi/menu/fm/htctctd/nh/nhtm/nhtmcp?dDocName=SBV571419&_afrLoop=34504297905356023#%40%3F_afrLoop%3D34504297905356023%26centerWidth%3D80%2525%26dDocName%3DSBV571419%26leftWidth%3D20%2525%26rightWidth%3D0%2525%26showFooter%3Dfalse%26showHeader%3Dfalse%26_adf.ctrl-state%3Dtx1sp09pb_41