FACTORS AFFECTING THE ON-TIME LOAN REPAYMENT ABILITY OF INDIVIDUAL CUSTOMERS AT SACOMBANK - TRA VINH BRANCH

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ABSTRACT:

This study examines the factors affecting the on-time loan repayment capacity of individual customers at Saigon Treasure Commercial Joint Stock Bank (Sacombank) - Tra Vinh Branch. Data were collected from 120 individual borrowers through direct surveys and analyzed using descriptive statistics and a binary logistic regression model. The findings indicate that income, education level, and collateral have positive effects on customers' ability to repay loans on time, whereas loan size has a negative effect. Based on these findings, the study proposes solutions to support Sacombank Tra Vinh in improving credit appraisal, credit management, and risk control, thereby enhancing the efficiency of individual lending operations.

Keywords: loan repayment ability, individual customers, Sacombank.

1. Introduction

In the context of Vietnam's economy integrating more deeply, the demand for bank loans from individual customers is rapidly increasing. Individual credit not only meets the needs for consumption and small-scale production and business but also plays an important role in promoting local economic growth. However, along with the development of individual credit, the problem of overdue debt is increasingly becoming a challenge for commercial banks. Sacombank - Tra Vinh Branch is one of the units with a fairly rapid credit growth rate, but it still faces the risk of increasing overdue debt. This requires empirical research to identify the factors affecting the on-time repayment ability of individual customers. Finding these factors helps the bank improve its credit appraisal process and manage loans more effectively. Globally, many studies have used the Logistic regression model to assess repayment ability, but in Vietnam, the number of studies at the local branch level is still limited. This study aims to fill that gap, contributing to providing a scientific basis for credit management.

Furthermore, analyzing the repayment behavior of individual customers in Tra Vinh also has practical significance, supporting the bank in designing suitable credit products. The problem statement in the study also emphasizes the importance of improving the quality of individual credit, especially in the context of fierce competition among banks. If the bank does not control overdue debt well, the risk of capital loss and reputation decline is very large. Therefore, the study is not only academic but also makes a clear practical contribution to credit management activities at Sacombank - Tra Vinh Branch. The research results are expected to support bank managers in making sound decisions, contributing to improving the efficiency of individual credit operations.

2. Research methodology

Study description: The study uses primary data collected through a survey of 120 individual customers borrowing from Sacombank - Tra Vinh Branch. A convenience sampling method was applied due to time and resource constraints. Data processing tools include descriptive statistics and Binary Logistic regression models to analyze the relationship between independent variables and on-time repayment ability.

Proposed research models: The dependent variable is on-time repayment ability (1 = on-time repayment, 0 = not on-time). Independent variables include: income, education level, collateral, and loan size. A Logistic regression model is proposed to test the impact of independent variables on the dependent variable.

Propsed research models: Ba sed on foundational theories and a review of previous studies, along with the specific characteristics of individual lending activities at Sacombank - Tra Vinh Branch, it is evident that several factors influence the timely repayment ability of individual customers. The proposed research model identifies six factors affecting this ability at Sacombank - Tra Vinh Branch, including: gender, education level, income, loan amount, collateral, and loan purpose.

Based on foundational theories and a review of previous studies, along with the characteristics of individual customer lending activities at Sacombank - Tra Vinh Branch, it can be seen that many factors influence the on-time repayment ability of individual customers. The proposed research model includes 06 factors affecting the on-time repayment ability of individual customers at Sacombank - Tra Vinh Branch: gender, education level, income, loan size, collateral, and loan purpose.

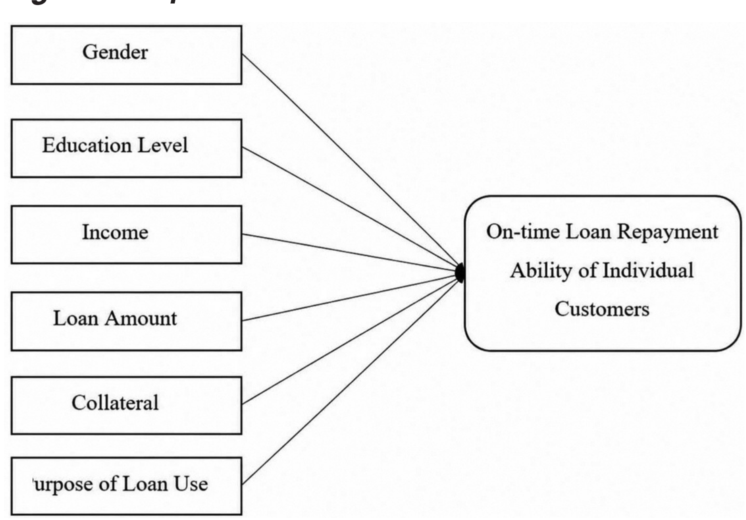
3. Discussion and results

3.1. Regression analysis

The study uses SPSS software to perform Binary Logistic model analysis, aiming to identify the factors affecting the on-time loan repayment ability of individual customers at Sacombank - Tra Vinh Branch. The use of SPSS supports data processing and provides accurate analysis results, helping to clarify the main factors affecting customers' debt repayment ability. The dependent variable of this model is whether customers have the ability to repay loans on time or not. The explanatory variables are gender, education level, income, loan size, collateral, and loan purpose.

Any regression model needs to be evaluated for overall fit, as well as testing the significance of

Figure 1. Proposed research model



regression coefficients and the overall fit. For the Binary Logistic regression model, to measure the overall fit of the model, the -2LL index (-2 log likelihood) can be used. Independent variables are determined based on previous research reviews. With the null hypothesis H0: regression coefficients are equal to 0.

According to the results of the overall fit test of the model, the Sig value < 0.05 indicates that the null hypothesis H0 is rejected, meaning that a regression model exists and can be used to predict the on-time repayment ability of individual customers.

The -2 Log likelihood value = 67.912 is smaller than the initial -2LL value, indicating a correlation between the independent variables and the dependent variable, on-time repayment ability of individual customers.

The Nagelkerke R2 value = 0.714 indicates that 71.4% of the change in the dependent variable is explained by the 6 independent variables in the model, while the remaining 28.6% is due to other factors not included in the research model.

The table shows the classification results for subjects with on-time repayment ability and those without. Out of 29 observed cases predicted to have no on-time repayment ability, 16 customers were correctly predicted to have no on-time repayment ability, with a correct prediction rate of 55.2%. Out of 91 observed cases predicted to have on-time repayment ability, 87 customers were correctly predicted to have on-time repayment ability, with a correct prediction rate of 95.6%. The overall correct prediction rate of the entire model is 85.8%, which suggests that the model used in this study is reasonable.

According to the regression model results, out of the 6 independent variables included in the model, 4 variables affect the on-time repayment ability of individual customers at Sacombank - Tra Vinh Branch. Specifically: Income has a Sig value = 0.002

Table 1. Test of the overall fit of the model

		Chi-square	Degrees of Freedom	Significance Level
Step 1	Step	98,233	6	0,000
	Block	98,233	6	0,000
	Model	98,233	6	0,000

(Source: Author's own calculations)

Table 2. Test of the explanatory power of the model (Model Summary)

Step	-2 Log likelihood	Coefficient Cox & Snell R^2	Coefficient Nagelkerke R^2
1	67.912[a]	0.528	0.714

(Source: Author's own calculations)

Table 3. Model prediction

Observed			Predicted		
			Repayment ability		Percentage Correct
			0	1	
Step 1	Repayment ability	0	16	13	55,2
		1	4	87	95,6
	Overall percentage			85,8	

(Source: Author's own calculations)

Table 4. Regression Results

Step 1a	Coefficient B	Standard Error	Wald Coefficient	Degrees of Freedom	Significance Level	Exp(B)
Gender	0.078	0.604	0.016	1	0.898	1.081
ducation	-0.003	0.696	0.000	1	0.996	0.997
Income	0.224	0.071	10.017	1	0.002	1.251
Loan size	-0.021	0.005	20.599	1	0.000	0.980
Collateral	2.653	0.886	8.959	1	0.003	14.197
Loan_Purpose	-0.684	0.402	2.892	1	0.089	0.505
Constant	3.613	1.318	7.509	1	0.006	37.066

(Source: Author's own calculations)

< 1%; Loan Size has a Sig value = 0.000 < 1%; Collateral has a Sig value = 0.003 < 1%; Loan Purpose has a Sig value = 0.089 < 10%.

The variables gender and education level are not significant.

The regression equation is as follows:

$$Y = 3.613 + 0.224INCOME - 0.021LOAN\_SIZE + 2.653COLLATERAL - 0.684LOAN\_PURPOSE$$

The regression results, aiming to identify factors affecting the on-time repayment ability of individual customers at Sacombank - Tra Vinh Branch in the study sample, indicate that 4 independent variables are statistically significant. Specifically:

Income: The INCOME variable in the Logistic regression model is statistically significant at the 1% significance level with a Sig. value = 0.002 and an Exp(B) coefficient = 1.251. This shows that income has a positive and significant influence on on-time repayment ability. Specifically, when income increases by one unit, on-time repayment ability increases by 1.251 times, assuming other factors remain constant. Stable income plays a crucial role in ensuring repayment ability at commercial banks. Compared to other factors in the model, such as gender or education level, income has a greater impact and higher stability, which is an essential factor for banks to carefully consider during the loan appraisal process.

Loan Size: The LOAN_SIZE variable is statistically significant at the 1% significance level with a Sig. value = 0.000 and an Exp(B) coefficient = 0.980, and has an inverse relationship with the on-time repayment ability of individual customers, consistent with the authors' initial expectation. This indicates that the larger the loan size, the lower the customer's on-time repayment ability. Each time the loan size increases by one unit, the on-time repayment ability of individual customers decreases by 0.98 times. High loan amounts are particularly risky when customers do not have stable income or sufficient collateral. Therefore, banks need to carefully consider the loan amount granted to customers to ensure it is appropriate for their financial capacity and actual needs.

Collateral: The COLLATERAL variable has the strongest impact in the model, statistically significant at the 1% significance level with a Sig. value = 0.003 and Exp(B) = 14.197. This shows that when customers have collateral, their on-time repayment ability increases significantly, by more than 14 times. The higher the collateral ratio compared to the loan amount, the greater the on-time repayment ability. This is an important factor in the loan consideration process and also a condition for the bank to approve loan amounts appropriate to the customer's collateral value. The role of collateral not only helps reduce risk for the bank but also protects customer interests when they face financial difficulties. Therefore, banks need to prioritize a thorough evaluation of collateral before disbursing loans, especially for large loans.

Loan Purpose: The LOAN_PURPOSE variable is statistically significant at the 10% significance level with a Sig. value = 0.089 and an Exp(B) coefficient = 0.505, indicating that unreasonable loan purposes reduce on-time repayment ability. Specifically, when the loan purpose is unclear or does not generate economic value, the likelihood of achieving the desired outcome decreases by 0.505 times. The loan purpose needs to be reasonable and feasible to ensure loan effectiveness. This can be explained by the fact that using capital for its intended purpose often goes hand in hand with clear financial planning, thereby helping customers achieve higher economic efficiency and repay the loan on time. Furthermore, using capital for its committed purpose also reflects the customer's sense of responsibility, an important factor that banks often consider during the credit approval process. Therefore, banks need to strictly evaluate customers' loan purposes to ensure feasibility, contributing to minimizing credit risk.

4. Conclusion

The study identified four key factors affecting the on-time loan repayment ability of individual customers at Sacombank - Tra Vinh Branch. Among these, income, education level, and collateral have a positive influence, while loan size has a negative impact. This implies that banks need to strengthen customer appraisal based on an analysis of income, education, and collateral, while reasonably controlling loan size. Some proposed solutions include: (i) Enhancing credit appraisal; (ii) Closely monitoring the use of capital after lending; (iii) Strengthening training for credit officers; (iv) Diversifying credit products suitable for customer needs and capacities. Additionally, banks need to focus on communication and financial consulting for customers to raise awareness of repayment obligations. The research results contribute to providing important practical bases for credit management at the branch. The study can also serve as a useful reference for other local commercial banks. However, the study still has some limitations, such as a small sample size, narrow survey scope, and not analyzing psychological-social factors. Therefore, subsequent studies can expand the scope and add more independent variables to obtain more comprehensive results. In summary, the study makes practical contributions in both theory and practice, supporting Sacombank - Tra Vinh Branch in improving the quality of individual credit. Thereby, contributing to ensuring the safe and sustainable development of the bank in an increasingly fierce competitive environment ■

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CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN KHẢ NĂNG TRẢ NỢ ĐÚNG HẠN CỦA KHÁCH HÀNG CÁ NHÂN TẠI NGÂN HÀNG SACOMBANK - CHI NHÁNH TRÀ VINH

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TÓM TẮT:

Nghiên cứu này xem xét các yếu tố ảnh hưởng đến khả năng trả nợ vay đúng hạn của khách hàng cá nhân tại Ngân hàng Thương mại cổ phần Sài Gòn Tài Lộc (Sacombank) - Chi nhánh Trà Vinh. Dữ liệu nghiên cứu được thu thập từ 120 khách hàng vay cá nhân thông qua phương pháp khảo sát trực tiếp và được phân tích bằng thống kê mô tả cùng mô hình hồi quy Binary Logistic. Kết quả nghiên cứu cho thấy thu nhập, trình độ học vấn và tài sản bảo đảm có tác động tích cực đến khả năng trả nợ đúng hạn của khách hàng, trong khi quy mô khoản vay có tác động tiêu cực. Trên cơ sở đó, nghiên cứu đề xuất các giải pháp nhằm hỗ trợ Ngân hàng Sacombank - Chi nhánh Trà Vinh nâng cao chất lượng thẩm định tín dụng, quản lý tín dụng và kiểm soát rủi ro, qua đó góp phần nâng cao hiệu quả hoạt động tín dụng cá nhân.

Từ khóa: khả năng trả nợ vay, khách hàng cá nhân, Sacombank.