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# Determinants of Working Capital Loan Approval for MSMEs at MNC Bank

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## Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh omzet usaha, kebutuhan modal kerja, dan jaminan terhadap keputusan pemberian kredit modal kerja pada pelaku Usaha Mikro, Kecil, dan Menengah (UMKM) di MNC Bank Regional Sumatera Utara. Metode yang digunakan adalah pendekatan kuantitatif dengan analisis regresi logistik. Data dikumpulkan dari 84 calon debitur UMKM yang mengajukan kredit selama periode 2023–2024. Hasil penelitian menunjukkan bahwa secara parsial, omzet usaha dan jaminan berpengaruh positif signifikan terhadap keputusan pemberian kredit, sedangkan kebutuhan kredit modal kerja menunjukkan pengaruh negatif signifikan. Secara simultan, ketiga variabel tersebut berpengaruh signifikan terhadap keputusan kredit. Temuan ini mengindikasikan pentingnya evaluasi komprehensif oleh bank terhadap variabel-variabel tersebut untuk mengurangi risiko Non-Performing Loan (NPL) dan meningkatkan efisiensi kredit kepada UMKM.

*Kata Kunci: MSMEs; Business Turnover; Working Capital Needs; Collateral; Logistic Regression*

## Abstract

*This study aims to analyze the determinants of working capital loan approval for Micro, Small, and Medium Enterprises (MSMEs) at MNC Bank, focusing on business turnover, working capital needs, and collateral. Access to bank financing remains a major constraint for MSMEs despite their significant contribution to economic growth. Using a quantitative approach, this study applies logistic regression analysis to secondary data from 84 MSME loan applicants at MNC Bank in North Sumatra during the 2023–2024 period. The results indicate that business turnover and collateral have a significant positive effect on loan approval decisions, while working capital needs show a significant adverse effect. Simultaneously, all variables have a significant impact on credit approval decisions. These findings contribute to MSME financing literature and provide practical implications for improving credit assessment and risk mitigation in banking institutions.*

Keywords: MSMEs; Working Capital Loans; Business Turnover; Collateral; Logistic Regression

## 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a critical role in Indonesia's economic development by contributing significantly to employment creation, income distribution, and economic resilience. Despite their strategic importance, MSMEs continue to face major constraints in accessing formal bank financing, particularly working capital loans. According to the Ministry of Cooperatives and SMEs (2024), only approximately 20% of MSMEs in Indonesia are considered bankable, indicating a persistent financing gap that limits business expansion and long-term sustainability. This condition highlights the urgency of examining the factors that influence bank credit approval decisions for MSMEs, especially amid increasing credit risk and economic uncertainty.

From a banking perspective, working capital lending to MSMEs involves relatively high credit risk, including the potential for non-performing loans (NPLs). Consequently, banks implement strict credit evaluation procedures based on the 5C principles—character, capacity, capital, condition of economic, and collateral—to mitigate lending risk. Among these principles, business turnover, working capital needs, and collateral are widely used as key quantitative indicators in credit assessment. However, the

relative influence of these variables on loan approval decisions may differ across banking institutions and regional contexts, thereby requiring further empirical investigation.

Previous studies on MSME credit approval have examined a wide range of financial and non-financial factors, including firm size, profitability, managerial capability, and credit history. While several studies find that business turnover and collateral positively influence loan approval, others emphasize the importance of qualitative borrower characteristics. Nevertheless, most existing studies rely on survey-based data or perceptual assessments rather than actual internal bank credit decision data. In addition, empirical research employing logistic regression analysis based on real MSME loan application outcomes in Indonesian commercial banks remains limited.

This study addresses these limitations by utilizing internal secondary data from MSME working capital loan applications at MNC Bank and applying logistic regression analysis to examine the determinants of loan approval decisions. Unlike previous studies, this research focuses on the combined effect of business turnover, working capital needs, and collateral within a single commercial bank, enabling a more accurate assessment of how these variables influence actual lending decisions. By filling this empirical gap, the study contributes to the MSME financing literature and provides practical insights for banks in strengthening credit evaluation frameworks and managing lending risk more effectively.

### Nomenclature

MSMEs	Micro, Small, and Medium Enterprises
NPLs	Non-performing loans
MNC	Multinational Corporation
KUR	Kredit Usaha Rakyat

## 2. Literature Review

### 2.1. Business Turnover

Business turnover represents the company's revenue generating ability within a specific period. Handayani (2018) finds that business turnover significantly influences credit approval decisions because it directly represents the borrower's ability to repay the loan. High turnover indicates strong business performance and reduces the bank's perceived risk.

### 2.2. Working Capital Needs

Working capital needs reflect the amount of operational funding required to run a business smoothly. Nurrahman (2017) emphasized that banks prefer to grant loans that align proportionately with the actual working capital needs of the business. If the loan request exceeds reasonable operational needs, banks may interpret it as an indicator of lack financial planning, thus leading to rejection.

### 2.3. Collateral

Collateral is defined as an asset pledged by the borrower to secure a loan and mitigate the lender's credit risk. Rofiah (2020) asserted that collateral plays a vital role in mitigating the bank's lending risk. Adequate collateral can serve as a safety net for the bank in case of borrower default. In the context of MSME lending, the lack of bankable assets often hinders loan approvals. Based on the theoretical framework and prior empirical studies, the following hypotheses are proposed:

- H1: Business turnover has a positive effect on working capital loan approval.
- H2: Working capital needs have a negative effect on working capital loan approval.
- H3: Collateral has a positive effect on working capital loan approval.

Previous studies consistently demonstrate that these three variables are interconnected with credit decisions. For instance, Handayani (2018) found that MSMEs with higher turnover, appropriate capital needs, and adequate collateral had a greater probability of receiving bank credit. This research aims to further investigate these variables in the context of MNC Bank's lending practices.

## 3. Research Method

This study adopts a quantitative research approach to analyze the effects of business turnover (X1), working capital needs (X2), and collateral (X3) on loan approval decisions (Y) for MSMEs at MNC Bank.

The population in this study includes all MSME loan applicants at MNC Bank Regional North Sumatra during the years 2023–2024. A total of 84 MSMEs that applied for working capital loans of up to IDR 10 billion were used as the research sample. This study applied census sampling, where the entire population that met the criteria was included in the sample.

The research used secondary data collected from MNC Bank’s internal credit databases, including:

1. Credit application reports
2. Financial statements (pro forma income and cash flow)
3. Collateral documentation
4. Final loan decision status (approved or rejected)

Variables and Measurement

1. Independent Variables:
  - a. X1: Business Turnover (in IDR)
  - b. X2: Working Capital Needs (in IDR)
  - c. X3: Collateral Value (in IDR)
2. Dependent Variable:
 

Y: Credit Approval Decision (1 = approved, 0 = rejected)

Each variable was transformed into numerical data using ratio scaling, except for the dependent variable, which used a binary nominal scale.

The data were analyzed using logistic regression analysis, as this method is suitable for a dichotomous dependent variable. The regression model used in this study is as follows:

$$\ln \left( \frac{P}{1-P} \right) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \quad (1)$$

Where:

P : Probability of loan approval

$\alpha$  : constant

$\beta_1, \beta_2, \beta_3$  : regression coefficients for each independent variable

X1 : Sales (in reflect sales ratio)

X2 : Working Capital Needs (in bank financing ratio)

X3 : Collateral Value (in collateral coverage ratio)

Data analysis was conducted using IBM SPSS Statistics Version 30, and the model's accuracy was tested using the Hosmer-Lemeshow goodness-of-fit test and Nagelkerke R<sup>2</sup>.

## 4. Results and Discussion

### 4.1 Research Result

This section reports the findings of the logistic regression analysis and descriptive statistics derived from data on 84 MSMEs applying for working capital loans at MNC Bank during 2023–2024. The analysis focuses on the influence of three independent variables—business turnover, working capital needs, and collateral—on loan approval decisions.

Table 1.1 presents the number of MSMEs that submitted loan applications and the number of those whose loans were approved from 2020 to 2024:

Tabel 1. Loan Applications and Realizations (2020–2024)

Year	Loan Applications	Loans Disbursed
2020	120	90
2021	135	100
2022	150	115
2023	165	125
2024	180	140

Source: Internal Report MNC Bank

From the table above, it is evident that there has been a consistent increase in loan applications from 2020 to 2024. However, the rate of loan realization has not kept pace, indicating a more selective and stringent credit evaluation process by MNC Bank.

The following figure illustrates the gap between submitted applications and approved loans:

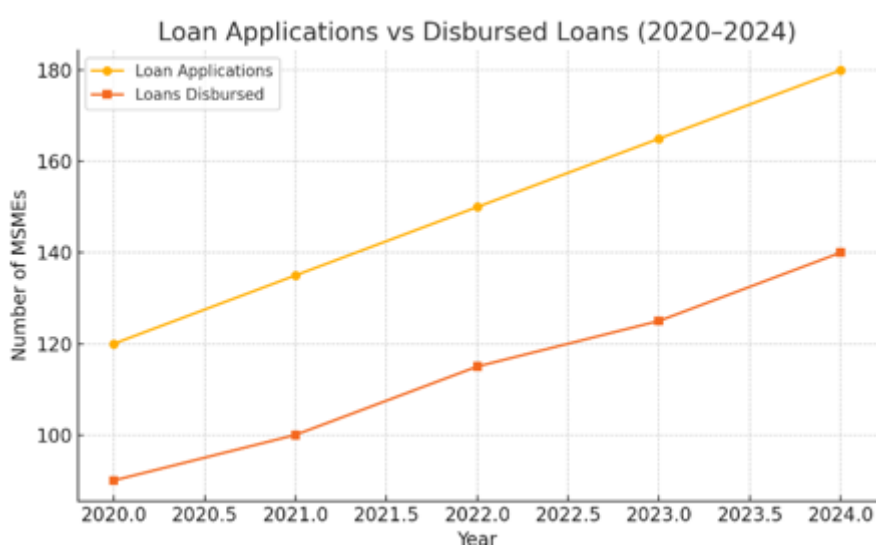


Figure 1. Loan Applications vs Disburse Loans (2020-2024)

This graph illustrates the increasing credit demand among MSMEs and the persistent financing gap resulting from risk aversion and strict lending requirements.

#### 4.1.1 Logistic Regression Results

The logistic regression model revealed the following coefficients and significance levels for the independent variables :

Tabel 2. Loan Applications and Realizations (2020–2024)

Variable	Coefficient (B)	Sig. (p-value)
Business Turnover	1.845	0.032
Working Capital Needs	-2.112	0.021
Collateral Value	2.543	0.005

Source: Generate data from SPSS 30

1. Business Turnover has a positive and significant effect, indicating that MSMEs with higher turnover are more likely to receive loan approval due to stronger repayment capacity.
2. Working Capital Needs has an adverse effect, suggesting that excessive capital requests often lead to rejections due to perceived over-leverage or unrealistic planning.
3. Collateral shows a strong positive influence, confirming its role as security for the bank in reducing credit risk.

Tabel 3. Hosmer and Lemeshow Test

Step	Chi-square	df
1	8.664	8

Tabel 4. Koefisien Determinasi (R2)

Step	Chi-square	df
1	8.664	8

Tabel 5. Tabel Klasifikasi

Step 1	Observed Credit Decision	Predicted		Percentage Correct
		Credit Decision		
		Credit rejected	Credit approved	
	Credit rejected	25	11	69.4
	Credit approved	6	42	87.5

Tabel 6. Logistic Regression Analysis Results

	B	S.E.	Wald	df	Sig.	Exp(B)
Sales	.108	.031	12.390	1	<.001	1.114
Working Capital Needs	-.084	.024	12.116	1	<.001	.919
Collateral Coverage Ratio	.043	.013	11.909	1	<.001	1.044
Collateral Value	-8.278	2.971	7.766	1	.005	.000

Source : Generate data from SPSS 30

4.1.2 Model Evaluation

The logistic regression results indicate that business turnover and collateral have a positive and statistically significant effect on loan approval decisions, while working capital needs have a significant negative effect. The model demonstrates good fit based on the Hosmer–Lemeshow test and explains a substantial proportion of variance in credit decisions.

1. The Hosmer-Lemeshow Test produced a p-value > 0.05, suggesting a good model fit.
2. The Nagelkerke R<sup>2</sup> value was 48.6%, indicating a moderate-to-strong explanatory power of the model in predicting loan approval decisions.
3. The Classification Accuracy of the model was 83.3%, showing that the logistic regression equation effectively predicts loan outcomes

Table 6 presents the results of the logistic regression analysis used to test the research hypotheses. The analysis examines the effects of business turnover, bank financing ratio, and collateral coverage ratio on MSME working capital loan approval decisions.

$$\ln \left( \frac{P}{1-P} \right) = -8.278 + 0.108X_1 - 0.084X_2 + 0.043X_3$$

## 4.2 Discussion

The findings of this study provide empirical evidence regarding the determinants of working capital loan approval for MSMEs at MNC Bank. The logistic regression results show that business turnover and collateral have a significant positive effect on loan approval decisions, while working capital needs have a significant negative effect. These results are consistent with credit risk assessment theory and the principles commonly applied in banking practices.

### 4.2.1 Effect of Sales on Loan Approval

The positive effect of business turnover on loan approval decisions supports the capacity theory, which emphasizes a borrower's ability to generate sufficient cash flow to meet debt obligations. MSMEs with higher turnover are perceived as having stronger repayment capacity and lower default risk, making them more likely to obtain credit approval. This finding aligns with previous studies that identify revenue performance as a key indicator in bank lending decisions for small businesses, as higher turnover reflects business sustainability and operational stability.

The results indicate that Business Turnover has a positive and statistically significant effect on working capital loan approval decisions for MSMEs. This variable shows a significance value of  $p < 0.001$ , which is below the threshold of  $\alpha = 0.05$ . The odds ratio (Exp(B)) of 1.114 suggests that an increase in business turnover increases the likelihood of loan approval. Therefore, Hypothesis 1 (H1) is accepted, indicating that higher business turnover significantly increases the probability of working capital loan approval.

### 4.2.2 Effect of Working Capital Needs on Loan Approval

Conversely, the negative effect of working capital needs indicates that banks tend to be cautious toward MSMEs requesting relatively large amounts of financing. Excessive working capital requirements may signal inefficiencies in financial management, overexpansion, or potential liquidity problems. From a risk management perspective, banks interpret disproportionate funding requests as an increased probability of moral hazard and credit risk. This result supports prior empirical findings suggesting that loan size and funding needs must be aligned with the borrower's financial capacity to increase the likelihood of approval.

The Bank Financing Ratio exhibits a negative and statistically significant effect on loan approval decisions, with a significance value of  $p < 0.001$ . The odds ratio (Exp(B)) of 0.919 indicates that higher bank financing ratios reduce the likelihood of loan approval. This result implies that excessive reliance on bank financing is perceived as increasing credit risk. Accordingly, Hypothesis 2 (H2) is accepted, confirming that the bank financing ratio has a significant negative effect on working capital loan approval.

### 4.2.2 Effect of Collateral Value on Loan Approval

Furthermore, the significant positive influence of collateral confirms its critical role as a risk mitigation mechanism in MSME lending. Collateral reduces potential losses in the event of default and strengthens the bank's security position. In line with credit risk theory, the availability of adequate collateral lowers the bank's exposure to loss, thereby increasing the probability of loan approval. This finding is consistent with previous studies that highlight collateral as a dominant factor in credit decisions, particularly in MSME financing where information asymmetry is relatively high.

The findings further reveal that the Collateral Coverage Ratio has a positive and statistically significant effect on working capital loan approval decisions. The significance value of  $p < 0.001$  indicates strong statistical support, while the odds ratio (Exp(B)) of 1.044 suggests that higher collateral coverage increases the probability of loan approval. Thus, Hypothesis 3 (H3) is accepted, confirming the importance of collateral in credit decision-making.

Overall, the results indicate that MNC Bank's credit approval decisions are primarily driven by prudential considerations, emphasizing repayment capacity and risk mitigation. The findings imply that MSMEs seeking working capital loans should focus on improving revenue performance, proposing realistic financing needs, and providing sufficient collateral to enhance their creditworthiness. From a theoretical perspective, this study reinforces the relevance of capacity and collateral-based assessments in MSME credit evaluation, while empirically demonstrating their application within the context of Indonesian commercial banking.

## 5. Conclusion

This study analyzed the influence of business turnover, working capital needs, and collateral on the decision to approve working capital loans for MSMEs at MNC Bank in the North Sumatra Region. Using logistic regression analysis on data from 84 MSME applicants in 2023–2024, the findings revealed the following:

1. Business Turnover has a statistically significant and positive influence on loan approval. MSMEs with higher turnover were more likely to have their loan applications approved due to better repayment capacity.
2. Working Capital Needs have a statistically significant and negative influence on loan approval. Loan applications with excessive or unrealistic capital needs were more likely to be rejected.
3. Collateral has a statistically significant and positive impact. The presence of sufficient and quality collateral increases the chances of loan approval, as it minimizes credit risk.

Simultaneously, the three variables have a significant effect on credit decisions at MNC Bank, highlighting the importance of financial soundness, prudent loan sizing, and strong collateral in MSME lending.

### Implications:

The results of this research offer several practical implications for stakeholders:

1. For MNC Bank:
  - a. Refine credit assessment procedures by prioritizing turnover verification and ensuring that loan requests are aligned with the borrower's actual working capital cycle.
  - b. Collateral Valuation Policies: Encourage the use of flexible but secure collateral policies to accommodate MSMEs that may have limited fixed assets but stable cash flow.
  - c. Risk-Based Lending Models: Develop a scoring system that assigns weights to turnover, capital needs, and collateral to assist in objective and data-driven lending decisions.
  - d. Capacity Building for Relationship Managers: Equip loan officers with skills to assess financial statements, understand MSME cash flow, and detect overestimated loan requests.
2. For MSMEs:
  - a. Improve Financial Reporting: Maintain accurate and transparent financial records to demonstrate turnover capacity and support creditworthiness.
  - b. Right-Size Loan Applications: Avoid excessive loan requests. Proposals should reflect realistic business capacity to ensure better chances of approval.
  - c. Strengthen Asset Documentation: Ensure that collateral offered is clearly documented, legally owned, and readily verifiable by the bank.
3. For Government
  - a. Expand MSME Credit Access Programs: The government should strengthen programs that facilitate MSME access to credit, such as credit guarantees (e.g., KUR) and interest subsidies for businesses with substantial turnover but lacking collateral.
  - b. Improve financial literacy initiatives by educating MSMEs on financial planning, financial record keeping, and the preparation of realistic loan proposals to reduce credit rejection rates.
  - c. Strengthen Credit Information Systems: By improving the integration and accessibility of MSME credit data (e.g., SLIK OJK), banks can make faster and more accurate lending decisions.
4. For Academics and Educational Institutions
  - a. Curriculum Development: Business and economics faculties should integrate more case-based learning related to MSME financing, including practical modules on preparing financial statements and loan applications.
  - b. Collaborative Research: Universities are encouraged to collaborate with financial institutions to research MSME credit behavior and contribute to evidence-based policy making.
5. For Future Researchers
  - a. Expand Variable Scope: Future research can include other influential factors such as business age, sectoral risk, character assessment, or macroeconomic indicators.
  - b. Comparative Regional Studies: Conducting studies across different regions or banks can provide broader generalizability and deeper insights into MSME financing dynamics.
  - c. Mixed-Method Approaches: Combining quantitative analysis with qualitative interviews from credit analysts or MSME owners may uncover behavioral factors that influence credit decisions.

Overall, aligning credit demand with objective financial performance and strengthening internal bank procedures can enhance access to credit for MSMEs while minimizing the risk of non-performing loans.

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