Empirical Analysis of Capital Credit Financing on Business Performance: A Study of Coastal Housewives' Micro-Enterprises in Belawan, Indonesia

Febri Antika[1*], Mekar Meilisa Amalia[2], Nurhayati[3]

[1,2,3]Department of Accounting, Faculty of Economics and Business, Universitas Dharmawangsa, Medan, Indonesia

Keywords: Micro-credit financing, Micro-enterprise performance, Coastal economy, Female entrepreneurship, Financial empowerment, PT PNM Mekaar.

***Correspondence Address:**
febriantika2026@dharmawangsa.ac.id

Abstract:

This study empirically investigates the impact of capital credit financing provided by PT PNM Mekaar on the business performance of coastal housewives engaged in micro-enterprises in Bagan Deli Village, Belawan District, Medan, Indonesia. A quantitative explanatory approach was employed using a sample of 55 active female borrowers selected through purposive sampling with the Slovin formula. Data were gathered via structured 5-point Likert scale questionnaires and field observations, and subsequently analyzed using simple linear regression via SPSS 30. The empirical results demonstrate that capital credit financing exerts a positive and statistically significant impact on business performance ($t_{count}=5.234 > t_{table}=2.006, p < 0.001$). The regression equation $Y = 5.143
+ 0.418X$ reveals that every unit increase in capital credit quality corresponds to a 0.418-unit improvement in business performance. The coefficient of determination ($R^2 = 0.341$) indicates that micro-credit financing accounts for 34.1% of the variance in micro-enterprise performance, particularly in expanding business capital, asset acquisition, and production capacity. These findings emphasize the vital role of non-collateralized group-based microfinance coupled with account officer mentoring in empowering vulnerable coastal women.

INTRODUCTION

Micro-enterprises constitute the backbone of national economic resilience in developing countries, playing an indispensable role in poverty alleviation, job creation, and household income generation. In vulnerable socioeconomic ecosystems—such as coastal fishing communities—household economies are inherently unstable due to the seasonal nature of marine catches, fluctuating weather conditions, and

ecological pressures (Purnama, 2023). Consequently, coastal housewives increasingly undertake micro-entrepreneurial activities (e.g., small grocery stores, home-based culinary businesses, and seafood processing) to supplement household income and reduce economic vulnerability (Torere,2019; Riyanto, 2018).

Despite their substantial potential, micro-enterprises managed by housewives in Bagan Deli Village, Belawan District, frequently face persistent structural impediments. The primary barrier is the acute shortage of working capital needed to sustain and expand daily operational activities. In accounting and financial management theory, adequate working capital is critical for purchasing inventory, acquiring basic production equipment, and maintaining smooth cash flow (Riyanto, 2020). However, formal banking institutions often exclude micro-entrepreneurs due to stringent administrative requirements, demand for tangible collateral, and lack of formalized financial statements (Hasanah, 2023).

To address this financing gap, state-supported microfinance initiatives such as PT Permodalan Nasional Madani (PNM) through its Mekaar (Membina Ekonomi Keluarga Sejahtera) program provide non-collateralized group lending tailored specifically for low-income women. Based on the Grameen Bank joint-liability model, PT Mekaar delivers working capital combined with mandatory weekly group meetings (PPM) and financial literacy mentoring by Account Officers (AOs). While existing literature generally suggests positive returns from micro-credit (Mayangsari et al., 2021; Farida, 2020), empirical evidence remains mixed regarding whether credit access directly translates into quantifiable business growth or if funds are diverted into non-productive household consumption (Hasanah, 2023).

Therefore, this study aims to rigorously analyze the direct effect of PT Mekaar's capital credit financing (***X***) on the business performance (***Y***) of coastal housewives' micro-enterprises in Bagan Deli Village, Belawan, from an accounting and financial management perspective.

RESEARCH METHOD

Location, Population, and Sampling

This empirical research was conducted in Bagan Deli Village, Belawan District, Medan, North Sumatra—a primary coastal fishing zone. The target population comprised all 120 active female borrowers of PT PNM Mekaar running micro-enterprises in 2024–2026. Applying the Slovin formula with a 10% margin of error (***e = 0.10***):

$$n = N / (1 + N \cdot e^2) = 120 / (1 + 120 \cdot 0.10^2) = 120 / 2.2 = 54.55 \approx 55 \text{ Respondents}$$

Through purposive sampling, 55 housewives who actively utilize credit for operating micro-enterprises (grocery stores, culinary, seafood processing) were selected as sample respondents.

Measurement of Variables

Primary data were collected using structured questionnaires measured on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The operationalization of variables is detailed below:

Independent Variable (X) - Capital Credit Financing: Measured through 10 item indicators covering loan amount adequacy, working capital utility, joint-liability group system, Account Officer mentoring quality, and loan access simplicity.

Dependent Variable (Y) - Business Performance: Measured through 6 item indicators covering

revenue/sales revenue growth, net business asset accumulation, production/service capacity expansion, and customer reach Statistical Analytical Model

Data processing was executed via SPSS version 30. The testing procedures included instrument validation (Pearson Product-Moment Correlation and Cronbach's Alpha), Classical Assumption Tests (Kolmogorov-Smirnov Normality, Multicollinearity VIF, and Scatterplot Heteroscedasticity), followed by Simple Linear Regression Analysis and Partial Hypotheses Testing (***t***-test).

$$Y = \alpha + \beta X + \varepsilon$$

DISCUSSION

Respondent Demographic Profile

The demographic characteristics of the 55 surveyed female entrepreneurs reflect a mature and active business profile across coastal micro-sectors, as summarized in Table 1.

Table 1. Respondent Profiles by Business Type, Age, and Business Tenure (N = 55)

Business Sector	**Qty**	**Age Group**	**Qty**	**Tenure**	**Qty**
Grocery Store (Warung)	22 (40.0%)	< 25 Years	12 (21.8%)	< 1 Year	14 (25.5%)
Culinary / Cooked Food	18 (32.7%)	25 – 35 Years	30 (54.5%)	1 – 3 Years	37 (67.3%)
Seafood Processing	3 (5.5%)	36 – 45 Years	13 (23.6%)	> 3 Years	4 (7.2%)
Others	12 (21.8%)	-	-	-	-
Total	**55 (100%)**	**Total**	**55 (100%)**	**Total**	**55 (100%)**

Instrument Quality and Classical Assumption Testing

As presented in Table 2, all 10 item indicators for Variable X (r_{count} ranging from 0.476 to 0.626) and 6 item indicators for Variable Y (r_{count} ranging from 0.510 to 0.759) exceeded the critical threshold of r_{table} = 0.30 ($p < 0.001$), confirming construct validity. Reliability testing yielded Cronbach's Alpha coefficients of 0.722 for Variable X and 0.702 for Variable Y, both exceeding the required 0.70 threshold.

Table 2. Summary of Instrument Validity and Reliability Tests

Variable	**Items**	**Validity Range (rcount)**	**r_{table} Cut-off**	**Cronbach's α**	**Status**
Capital Credit Financing (X)	10	0.476 – 0.626	0.300	0.722	Valid & Reliable

Business Performance (Y)	6	0.510 – 0.759	0.300	0.702	Valid & Reliable

Classical assumption tests confirmed that the model residual is normally distributed (Kolmogorov-Smirnov statistic = 0.094, $p = 0.200 > 0.05$). Multicollinearity was ruled out (Tolerance= 1.000, VIF = 1.000), and scatterplot analysis verified homoscedasticity with residuals randomly dispersed around zero.

Simple Linear Regression Analysis and Hypothesis Testing

The execution of simple linear regression analysis yielded the empirical model parameters shown in Table 3.

Table 3. Simple Linear Regression Coefficients and Hypothesis Test (t-test)

Model Parameter	Unstandardized B	Std. Error	Standardized Beta	^{t}count	Sig. (p)
(Constant)	5.143	2.987	-	1.722	0.091
Capital Credit (X)	0.418	0.080	0.584	5.234	< 0.001

The resulting regression equation is expressed as:

$$Y = 5.143 + 0.418\,X$$

The statistical interpretation of the regression results is as follows:

Constant ($\alpha = 5.143$): Indicates that in the absence of capital credit financing ($X = 0$), baseline business performance remains at 5.143 units, driven by baseline entrepreneurial experience and existing family capital.

Regression Coefficient ($\beta = 0.418$): Demonstrates a positive relationship where every additional 1-unit enhancement in working capital financing quality yields a 0.418-unit increase in micro-enterprise business performance.

Partial Significance (*t*-test): The calculated t_{count} of 5.234 substantially exceeds the critical t_{table} value of 2.006 ($df = 53$, $\alpha = 0.05$) with $p < 0.001$. Consequently, H_0 is rejected and H_1 is accepted, confirming that capital credit financing exerts a statistically significant positive effect on business performance.

Coefficient of Determination (R^2)

The summary of model fit metrics is displayed in Table 4.

Table 4. Model Summary and Coefficient of Determination (R^2)

R (Correlation)	R Square (R^2)	Adjusted R Square	Std. Error of the Estimate

0.584	0.341	0.328	1.77371

The coefficient of determination (R^2 = 0.341) indicates that 34.1% of the variation in micro-enterprise performance among coastal housewives is directly explained by PT Mekaar's capital credit financing. The remaining 65.9% is governed by extraneous factors not captured in this model, such as market demand fluctuations, financial management literacy, years of entrepreneurial experience, and informal support networks.

3.5 Discussion and Empirical Implications

The empirical findings validate that micro-credit disbursemens accompanied by weekly group mentoring significantly enhance micro-enterprise outcomes in coastal regions. Access to working capital empowers housewives to purchase higher quantities of merchandise stock (Warung) and raw materials (Culinary/Seafood), directly elevating production capacity and asset accumulation (Y3 and Y4 items scored > 90% positive agreement).

These findings align with Mayangsari et al. (2021) and Farida (2020), reaffirming that credit acts as a vital financial catalyst for vulnerable female entrepreneurs. However, the moderate R^2 value (34.1%) highlights that provision of capital alone is insufficient to optimize revenue growth. Field responses indicated lingering weaknesses
in formal bookkeeping and profit-tracking, causing some cash flow overlap between domestic household needs and business capital. Thus, integrating basic accounting education into weekly Account Officer meetings is crucial to maximize financial productivity.

CONCLUSION

This study demonstrates that capital credit financing provided by PT PNM Mekaar has a statistically significant positive influence on the business performance of coastal housewives' micro-enterprises in Bagan Deli Village, Belawan District (t_{count} = 5.234 > t_{table} = 2.006, p < 0.001). The financing accounts for 34.1% of performance variance. Credit disbursemens directly drive tangible asset expansion and working capital growth, providing vital
socioeconomic stability for vulnerable coastal families.

REFERENCES

Akhirani, N., Dalimunthe, R., Fierda, F., Hasibuan, A., & Pulungan, J. F. (2025). Understanding the Sigala-Gala Village community towards Mekaar loans in economic welfare. *Journal of Economics and Management*, 3(9), 213–219.

Farida. (2020). The effect of working capital on the performance of micro and small enterprises. *Journal of Microeconomic Analysis*, 12(2), 112–122.

Hasanah. (2023). The impact of micro-financing on business performance with financial literacy as a supporting factor. *Journal of Financial Accounting & Management*, 15(1), 85–98.

Financial Services Authority (OJK). (2020). *National Financial Literacy and Inclusion Survey Report*. OJK Jakarta.

Mayangsari, D., Zuhroh, N., & Hadi, S. (2021). The influence of PT PNM Mekaar financing on the performance of female micro-entrepreneurs.

Journal of Economics and Business Studies, 9(1), 50–62.

Munawir, S. (2014). *Analysis of Financial Statements*. Liberty, Yogyakarta.

Munizu, M. (2010). The influence of external and internal factors on the performance of micro, small, and medium enterprises (MSMEs) in South Sulawesi. *Journal of Management and Entrepreneurship*, 12(1), 33–41.

Purnama, A. (2023). *Roots of Poverty in Coastal Regions: Socio-Economic Dynamics of Marine Households*. Pustaka Pesisir, Medan.

Riawan, & Kusnawan, A. (2018). The role of business credit in improving MSME performance.

Journal of Applied Accounting, 6(2), 101–112. Riyanto, B. (2020). *Fundamentals of Corporate Financing* (8th ed.). BPFE, Yogyakarta.

Sari, R. (2022). Micro-financing access and economic empowerment in informal sectors. *International Journal of Microfinance*, 14(2), 82–95.

Suardana, I. W., & Musmini, L. S. (2020). Access to capital and financial management in MSME development. *Journal of Accounting Education*, 8(3), 115–126.

Sugiyono. (2020). *Quantitative, Qualitative, and R&D Research Methods*. Alfabeta, Bandung.

Torere, S. (2019). The dual role of coastal women in household economic survival. *Journal of Gender & Coastal Society*, 5(1), 45–58.