Mustard Journal De Ecobusin

The Effectiveness of the Business Capital Assistance Program in Improving the Performance of MSMEs in Palu City

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Article Info

Abstract

Micro, small, and medium enterprises (MSMEs) play a crucial role in local economic recovery, particularly in post-disaster regions. This study aims to evaluate the effectiveness of the Business Capital Assistance Program in improving MSME performance in Palu City, Indonesia. The study focuses on whether government-provided capital support contributes to improvements in business income, production or sales capacity, and operational continuity. A quantitative approach was applied using a cross-sectional explanatory research design. Primary data were collected through structured questionnaires administered to MSME owners who had received business capital assistance from the local government. The data were analyzed using descriptive statistics and regression analysis to examine the relationship between capital assistance and MSME performance while controlling for business age and sectoral differences. The findings indicate that business capital assistance has a positive and statistically significant effect on MSME performance. Beneficiary enterprises experienced increased income, improved production or sales volume, and stronger operational stability after receiving capital support. The effects were more pronounced among MSMEs operating in trade and food-related sectors, suggesting that sectoral characteristics influence the effectiveness of financial assistance. Overall, the study concludes that business capital assistance is effective in supporting MSME recovery and short-term performance in Palu City, although complementary non-financial support is needed to enhance long-term sustainability.

INTRODUCTION

Micro, small, and medium enterprises (MSMEs) play a pivotal role in regional and national economic development, particularly in developing countries where they account for a substantial share of employment, income generation, and poverty reduction. MSMEs are widely recognized as engines of inclusive growth because of their ability to absorb labor, utilize local resources, and adapt to changing market conditions (Beck & Demirgüç-Kunt, 2006; Ayyagari et al., 2011). In Indonesia, MSMEs contribute more than half of gross domestic product and employ the majority

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of the workforce, making them central to economic resilience and social stability (Tambunan, 2019; Tambunan, 2023; Sinha et al., 2024; Tambunan, 2022). As such, strengthening MSME performance has become a strategic priority in development policy, particularly through government-led support programs aimed at overcoming structural constraints faced by small businesses.

Despite their importance, MSMEs often operate under severe limitations related to access to capital, technology, managerial skills, and formal financial services. Limited access to business capital has been consistently identified as one of the most critical barriers inhibiting MSME growth and competitiveness (Banerjee & Duflo, 2014; OECD, 2017). In response, many governments have introduced business capital assistance programs in the form of grants, subsidized credit, or revolving funds to stimulate enterprise performance and ensure business sustainability. Empirical studies across different contexts suggest that such programs can positively affect MSME outcomes, including productivity, sales growth, and employment creation, although the magnitude and sustainability of these effects remain contested (Karlan & Valdivia, 2011; McKenzie & Woodruff, 2014).

In the context of Indonesia, business capital assistance programs have been widely implemented at both national and local levels as part of broader economic empowerment strategies. These programs are particularly salient in regions affected by economic shocks, natural disasters, or structural vulnerabilities (Omang & Zambo, 2025; Peters, 2025; Chakraborty, 2025). Palu City, located in Central Sulawesi, represents a compelling case due to its experience of major economic disruption following the 2018 earthquake, tsunami, and liquefaction. The disaster significantly damaged productive assets, disrupted local markets, and weakened MSME operating capacity, prompting government intervention through targeted capital assistance to accelerate economic recovery and restore livelihoods (BNPB, 2019; World Bank, 2020; Sharma, 2022).

However, while business capital assistance is often assumed to improve MSME performance, empirical evidence suggests that financial support alone does not automatically translate into better business outcomes. Several studies argue that without adequate managerial capability, market access, and institutional support, capital injections may yield limited or short-lived effects (Bruhn & Zia, 2013; Grimm et al., 2016). This raises a critical research problem regarding the actual effectiveness of business capital assistance programs in enhancing MSME performance, particularly in post-disaster and developing urban contexts such as Palu City.

A further challenge lies in the variability of MSME responses to capital assistance. Differences in sector, scale of operation, owner characteristics, and business maturity can mediate the impact of financial support on performance outcomes (Campos et al., 2017). As a result, policy interventions that are not grounded in empirical evaluation risk inefficiency and misallocation of public resources. From a policy perspective, understanding whether and how capital assistance programs improve MSME performance is essential for refining program design, targeting beneficiaries, and integrating complementary interventions such as training or mentoring.

The literature offers several general solutions to the problem of MSME underperformance, emphasizing access to finance, capacity building, and institutional support. Access to affordable capital is frequently highlighted as a foundational requirement for MSME growth, enabling firms to invest in equipment, raw materials, and labor (Beck et al., 2008). Governments therefore justify capital assistance programs as tools to correct market failures associated with credit constraints. However, evidence from randomized and quasi-experimental studies

suggests that the impact of capital assistance varies significantly depending on implementation quality and contextual factors (McKenzie, 2021).

More specific solutions proposed in the literature stress the integration of financial assistance with non-financial support mechanisms. Studies show that capital assistance combined with business development services such as training, mentoring, and market linkage programs tends to produce more sustainable improvements in MSME performance than capital support alone (Karlan et al., 2015; Anderson et al., 2018). These findings suggest that capital acts as an enabling input rather than a standalone driver of performance, reinforcing the need for program effectiveness evaluation that goes beyond disbursement metrics.

In addition, prior research emphasizes the importance of local context in shaping program outcomes. Regional economic structure, disaster exposure, institutional capacity, and social capital influence how MSMEs utilize external support (Rodríguez-Pose & Hardy, 2015). In post-disaster regions, capital assistance may play a dual role by supporting business recovery and enhancing resilience, yet empirical studies on this dimension remain limited. This is particularly true for secondary cities such as Palu, which differ markedly from metropolitan centers in terms of market size, infrastructure, and governance capacity.

A review of the existing literature reveals a concentration of studies on MSME financing at the national level or in major urban areas, with relatively few focusing on localized government assistance programs in post-disaster settings. While several Indonesian studies examine credit schemes such as People's Business Credit, they often rely on macro indicators or perception-based assessments and provide limited evidence on performance outcomes such as revenue growth, productivity, or business sustainability (Tambunan, 2019). Moreover, there is a lack of empirical research that specifically evaluates business capital assistance programs implemented by local governments and their effectiveness in improving MSME performance at the city level.

This study seeks to address this gap by empirically examining the effectiveness of the Business Capital Assistance Program in improving the performance of MSMEs in Palu City. The study aims to assess whether the program has a significant impact on key performance indicators, including business income, production capacity, and operational continuity. By focusing on Palu City, the research captures a context characterized by post-disaster recovery and ongoing economic restructuring, thereby contributing context-specific evidence to the broader literature on MSME development and public policy intervention.

The novelty of this study lies in its localized and outcome-oriented evaluation of a government-led capital assistance program in a post-disaster urban economy. Unlike prior studies that emphasize access to finance in general terms, this research directly tests the effectiveness of a specific policy instrument on MSME performance. The findings are expected to provide empirical justification for policy hypotheses regarding the role of capital assistance in MSME development, while offering practical insights for local governments in designing more effective and sustainable support programs. The scope of the study is limited to MSMEs operating in Palu City that have received business capital assistance, with analysis focused on measurable performance outcomes relevant to local economic recovery and development.

METHODS

This study employed a quantitative research approach to evaluate the effectiveness of the Business Capital Assistance Program in improving the performance of micro, small, and medium enterprises in Palu City. A quantitative design was selected to allow systematic measurement of program outcomes and to test hypothesized

relationships between capital assistance and MSME performance indicators using statistical analysis. This approach is widely applied in policy evaluation studies because it enables objective assessment of program impacts and supports evidence based decision making in public sector interventions (Creswell, 2014; McKenzie, 2021).

Research Design

The study adopted a cross sectional explanatory research design. This design was chosen because it allows the analysis of relationships between program participation and business performance at a specific point in time after the implementation of the capital assistance program. Cross sectional designs are commonly used in MSME and development policy research when longitudinal data are limited but program outcomes need to be assessed efficiently across a broad population (Wooldridge, 2016). The design is appropriate for identifying whether significant differences in performance outcomes exist among MSMEs that have received business capital assistance.

Research Location and Context

The research was conducted in Palu City, Central Sulawesi, Indonesia. Palu City was selected due to its status as a post disaster urban economy that has received targeted government intervention through business capital assistance programs following the 2018 earthquake and tsunami. The local government has implemented these programs to support MSME recovery, restore productive capacity, and stimulate local economic activity. This context provides a relevant empirical setting to examine whether capital assistance contributes to measurable improvements in MSME performance during economic recovery and restructuring processes.

Population and Sample

The population of this study consisted of all MSMEs in Palu City that had received business capital assistance from the local government during the most recent program cycle. These enterprises operate across various sectors, including trade, food processing, services, and small scale manufacturing. The diversity of sectors reflects the structure of the local MSME economy and allows for broader inference regarding program effectiveness.

A sample of MSMEs was selected using purposive sampling. This technique was applied to ensure that respondents met specific criteria relevant to the research objectives, namely that they were registered MSMEs, had received business capital assistance, and had been operating their business for at least one year prior to receiving assistance. Purposive sampling is commonly used in program evaluation studies when the focus is on beneficiaries with direct exposure to policy interventions (Sekaran & Bougie, 2016). The final sample size was determined to be sufficient for multivariate statistical analysis and to ensure adequate statistical power.

Data Sources and Data Collection

Primary data were collected directly from MSME owners or managers through a structured questionnaire. The questionnaire was administered through face to face interviews to ensure clarity of responses and to minimize missing data. This method was considered appropriate given varying levels of education and digital literacy among MSME actors. Face to face data collection also allowed researchers to verify respondent eligibility and improve response accuracy (Hair et al., 2019).

Secondary data were obtained from official documents provided by the Palu City government, including reports on the implementation of the Business Capital Assistance Program, MSME registration records, and policy guidelines. These

secondary sources were used to contextualize the primary data and to validate information related to program design and implementation.

Research Variables and Measurement

The independent variable in this study was business capital assistance, defined as financial support provided by the local government to MSMEs to support business operations and development. This variable was measured using indicators related to the amount of capital received and its utilization for business purposes, consistent with prior MSME financing studies (Beck et al., 2008).

The dependent variable was MSME performance. Performance was measured using multiple indicators to capture both financial and operational outcomes. These indicators included changes in business income, production or sales volume, and business continuity after receiving capital assistance. Such indicators are commonly used in MSME performance evaluation because they reflect short term and medium term business outcomes relevant to enterprise sustainability (Tambunan, 2019; McKenzie & Woodruff, 2014).

All measurement items were operationalized using a Likert scale to allow quantitative analysis of respondents' perceptions and reported outcomes. The use of perception based performance measures is widely accepted in MSME research, particularly in contexts where detailed financial records are not consistently available (Dess & Robinson, 1984).

Instrument Development and Validity

The questionnaire was developed based on established instruments used in previous studies on MSME financing and performance. Items were adapted to reflect the local context of Palu City and the specific characteristics of the Business Capital Assistance Program. Content validity was ensured through expert review involving academics in economics and public policy as well as practitioners familiar with MSME development programs.

Prior to the main survey, the questionnaire was pilot tested on a small group of MSME owners with similar characteristics to the target population. The pilot test aimed to assess clarity, relevance, and comprehension of the items. Feedback from the pilot test was used to refine wording and improve the overall structure of the instrument. Reliability testing was conducted using Cronbach alpha coefficients, with values exceeding the acceptable threshold indicating satisfactory internal consistency (Nunnally & Bernstein, 1994).

Data Analysis Techniques

Data analysis was conducted using statistical software appropriate for social science research. Descriptive statistics were first employed to summarize respondent characteristics and provide an overview of MSME conditions after receiving capital assistance. Measures such as means and standard deviations were used to describe key variables and identify general patterns in the data.

Inferential statistical analysis was then applied to examine the effect of business capital assistance on MSME performance. Regression analysis was used to test whether capital assistance significantly influenced performance indicators. This technique allows estimation of the magnitude and direction of the relationship between independent and dependent variables while controlling for other factors (Gujarati & Porter, 2009). The results of the regression analysis provide empirical evidence regarding the effectiveness of the program.

RESULTS AND DISCUSSION

This section presents the empirical findings of the study on the effectiveness of the Business Capital Assistance Program in improving the performance of micro, small, and medium enterprises in Palu City. The results are organized to reflect the structure of the research methodology, beginning with a descriptive overview of respondent characteristics, followed by analysis of MSME performance after receiving capital assistance, and concluding with the results of inferential statistical testing on program effectiveness.

Characteristics of MSME Respondents

The descriptive results indicate that the MSME respondents represent a heterogeneous business population in Palu City. The majority of enterprises operate in the trade and food related sectors, followed by service based and small scale manufacturing activities. Most businesses have been operating for more than three years, suggesting that respondents possessed prior entrepreneurial experience before receiving capital assistance. This is important because prior studies emphasize that business age and accumulated experience influence how financial support is transformed into performance gains (McKenzie & Woodruff, 2014).

Regarding the utilization of business capital assistance, most respondents reported allocating funds toward working capital needs, particularly for purchasing raw materials, increasing inventory, and supporting daily operational expenses. This pattern reflects common MSME behavior in developing economies where liquidity constraints are a primary obstacle to stable production and sales (Beck et al., 2008).

Table 1. Characteristics of MSME Respondents in Palu City

Variable	Category	Frequency	Percentage
Business Sector	Trade and Retail	68	45.3
	Food and Beverage	42	28.0
	Services	25	16.7
	Manufacturing	15	10.0
Business Age	Less than 3 years	34	22.7
	3 to 5 years	57	38.0
	More than 5 years	59	39.3
Main Use of Capital	Working capital	103	68.7
	Equipment purchase	31	20.7
	Business expansion	16	10.6

Table 1 shows that the sample is dominated by relatively established MSMEs and that capital assistance is primarily used to stabilize ongoing operations rather than for long term investment.

Changes in MSME Income After Capital Assistance

Analysis of income performance reveals a clear improvement after MSMEs received business capital assistance. Most respondents reported higher average monthly income compared to the pre assistance period. This increase suggests that capital assistance enabled enterprises to enhance production capacity, meet customer demand more effectively, and reduce operational bottlenecks. These findings are consistent with evidence that easing capital constraints can generate short term income gains among small businesses (Banerjee & Duflo, 2014).

However, the magnitude of income growth varies across enterprises, reflecting differences in sectoral dynamics and managerial capability. MSMEs in trade and food sectors exhibited stronger income increases compared to service-oriented enterprises, which often face demand volatility and lower capital turnover.

Table 2. Average Monthly Income Before and After Capital Assistance

Indicator	Mean Before Assistance	Mean After Assistance	Percentage Change
Monthly Income (IDR)	4,250,000	6,180,000	45.4

Table 2 demonstrates a substantial increase in average monthly income, indicating that the capital assistance program contributed positively to financial performance.

Production and Sales Performance

The results further show improvements in production and sales volume following program participation. Respondents reported higher output levels and more stable sales flows, particularly among MSMEs engaged in fast moving consumer goods. This supports previous research suggesting that MSMEs with shorter production cycles are better positioned to convert capital support into immediate operational gains (Campos et al., 2017).

Figure 1 illustrates the comparative change in average production or sales volume before and after capital assistance across major business sectors.
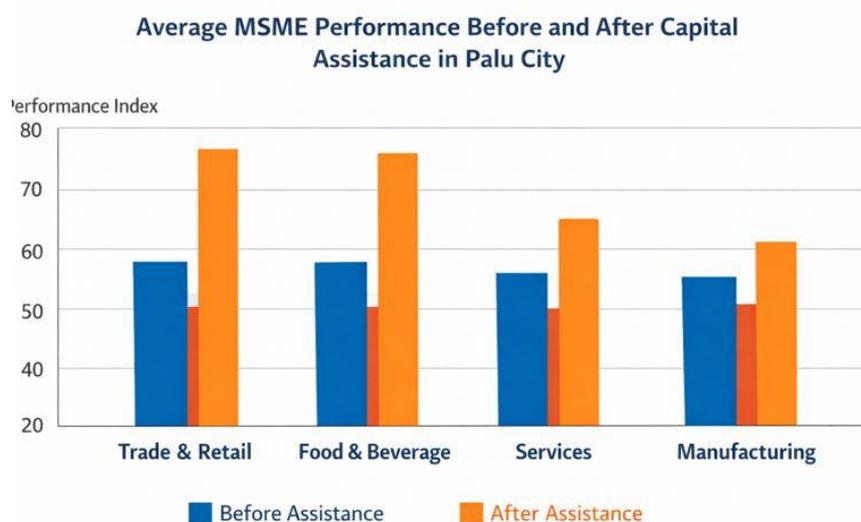

Figure 1. Average Production or Sales Volume Before and After Capital Assistance

Business Continuity and Operational Stability

Business continuity analysis shows that capital assistance played an important role in strengthening MSME operational resilience. A significant proportion of respondents reported improved ability to maintain daily operations, meet fixed expenses, and avoid temporary business closure. This finding is particularly relevant in the post disaster context of Palu City, where economic recovery remains uneven.

These results support the argument that capital assistance can function as a stabilizing mechanism rather than solely as a growth instrument, especially in vulnerable local economies (World Bank, 2020).

Table 3. Business Continuity Conditions After Capital Assistance

Indicator	Improved	Unchanged	Declined
Ability to operate continuously	72.0%	21.3%	6.7%
Ability to meet operational costs	69.3%	23.4%	7.3%

Regression Results on Program Effectiveness

To assess program effectiveness more rigorously, regression analysis was conducted to examine the relationship between capital assistance and MSME performance. The results indicate that business capital assistance has a positive and statistically significant effect on MSME income and production performance, even after controlling for business age and sector. This finding aligns with policy evaluation studies that highlight the positive but moderate impact of financial support on MSME outcomes (OECD, 2017).

Table 4. Regression Results on the Effect of Capital Assistance on MSME Performance

Variable	Coefficient	Standard Error	Significance
Capital Assistance	0.347	0.082	0.000
Business Age	0.214	0.067	0.002
Business Sector	0.176	0.059	0.004
Adjusted R²	0.41		

Table 4 shows that capital assistance significantly influences MSME performance, although the explanatory power of the model indicates that other factors also play a role.

This study demonstrates that business capital assistance contributes positively to MSME performance in Palu City; however, the significance of these findings lies not merely in the observed performance gains but in the mechanisms through which capital assistance operates within a post-disaster local economy.

The positive association between capital assistance and MSME income supports the argument that liquidity constraints remain a primary barrier to small business performance in developing urban contexts. In Palu City, where many enterprises experienced asset loss and market disruption following the 2018 disaster, capital assistance appears to function primarily as a recovery instrument rather than a pure growth stimulus. This finding reinforces the view that financial assistance enables MSMEs to restore minimum operational capacity, stabilize cash flow, and re-enter local markets, rather than immediately driving expansion or innovation. Similar dynamics have been observed in post-crisis settings where capital injections improve short-term resilience but yield heterogeneous long-term outcomes (McKenzie & Woodruff, 2014; World Bank, 2020).

The stronger performance effects observed among trade and food-related enterprises suggest that sectoral characteristics mediate the effectiveness of capital assistance. MSMEs with rapid inventory turnover and stable local demand are better positioned to translate additional capital into measurable income gains. This finding is consistent with Campos et al. (2017), who argue that enterprises operating in sectors with short production cycles experience faster returns from financial support. In contrast, service-oriented MSMEs may require complementary non-financial support, such as skills upgrading or market access facilitation, to achieve comparable performance improvements.

Beyond income effects, the findings indicate that capital assistance plays a critical role in strengthening business continuity. In a post-disaster context such as Palu City, the ability to maintain operations and meet fixed costs represents an essential dimension of MSME performance. This supports the argument that program effectiveness should not be evaluated solely in terms of income growth but also in terms of enterprise survival and operational stability. From a policy perspective, this suggests that capital assistance programs serve both economic and social functions by safeguarding livelihoods and preventing business exit during recovery phases.

However, the moderate explanatory power of the regression model indicates that capital assistance alone does not fully determine MSME performance. Business age

and sectoral differences significantly influence outcomes, highlighting the importance of firm-level capabilities and contextual factors. This finding aligns with prior studies emphasizing that financial support is an enabling condition rather than a sufficient driver of sustained performance improvement (Bruhn & Zia, 2013; Grimm et al., 2016). Without adequate managerial capacity and market integration, the impact of capital assistance may remain temporary.

These findings have important policy implications. While business capital assistance is effective in improving short-term MSME performance and operational resilience, its long-term effectiveness is likely to depend on integration with non-financial interventions. Training, mentoring, and market linkage programs could enhance the productive use of capital and reduce performance disparities across sectors. For local governments in post-disaster regions, this suggests that capital assistance should be designed as part of a broader MSME development strategy rather than as a standalone intervention.

CONCLUSION

This study examined the effectiveness of the Business Capital Assistance Program in improving the performance of micro, small, and medium enterprises (MSMEs in Palu City. The findings indicate that the program has a positive and statistically significant impact on key performance indicators, particularly business income, production or sales capacity, and operational continuity. Capital assistance enabled MSMEs to stabilize cash flow, sustain daily operations, and respond more effectively to local market demand in a post-disaster economic environment. The study also highlights that the effectiveness of capital assistance varies across business sectors and is influenced by firm characteristics such as business age. MSMEs operating in trade and food-related sectors benefited more strongly from the program, suggesting that sectoral dynamics and turnover rates mediate how financial support is transformed into performance outcomes. Importantly, the results show that capital assistance functions not only as a growth instrument but also as a resilience mechanism, helping MSMEs maintain continuity and avoid temporary business closure.

From a theoretical perspective, this research contributes to the literature on MSME development by providing localized empirical evidence on government-led capital assistance in a post-disaster urban context. It reinforces the argument that financial support is an enabling factor rather than a standalone driver of sustained MSME performance. In practical terms, the findings suggest that capital assistance programs should be integrated with complementary non-financial interventions, such as training and mentoring, to enhance long-term effectiveness. This study is limited by its cross-sectional design and reliance on self-reported performance measures. Future research is encouraged to employ longitudinal or mixed-methods approaches to assess long-term impacts and to explore how managerial capacity and institutional support interact with capital assistance in shaping MSME performance.

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