



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

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### Abstract

*This study reviews the effectiveness of the Business Capital Assistance Program to improve the performance of the micro, small and medium scale businesses in the city of Palu in the context of economic recovery from disaster in Indonesia. The study will assess whether government support for enterprises in the form of financial assistance has a significant impact on enterprise income growth, enterprise production and sales performance, and enterprise continuity. The quantitative explanatory approach was used and the type of design was cross sectional. The data were gathered by using structured questionnaires and the respondents were the owners of MSMEs who received business capital assistance from the local government. The data was analyzed descriptively and multiple regression analysis was used to determine the relationship between capital assistance and MSME performance. The results indicate that business capital assistance is positively and significantly influencing the performance of the MSMEs. Financial assistance to the beneficiary enterprises led to increased income, growth of production and sales activity, and better stability of operations in the enterprise. The study also finds that the effectiveness of a programme is influenced by the characteristics of the sector: it is more effective for trade and food-related enterprises. This study's novelty is in its resilience-based assessment of a localized government assistance program in a post-disaster urban economy. Results offer theoretical and practice implications for developing more adaptive and sustainable MSME development policies in vulnerable areas.*

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## INTRODUCTION

Micro, small, and medium enterprises (MSMEs) constitute one of the most important pillars of economic development in emerging economies due to their substantial contribution to employment creation, poverty reduction, and local economic resilience. In many developing countries, MSMEs function not only as economic actors but also as instruments of social stabilization because they absorb labor from vulnerable groups and stimulate grassroots economic activity (Dewi, 2020; Nursini, 2020). In Indonesia, MSMEs account for the overwhelming majority of business

entities and contribute significantly to national gross domestic product and employment generation. Their strategic role became increasingly visible during periods of economic disruption, including financial crises, the COVID-19 pandemic, and regional disaster recovery processes (Chang et al., 2022; Brada et al., 2021; Wang et al., 2021). Consequently, strengthening MSME performance has become a central agenda in national and local development policy, particularly through government intervention programs designed to overcome structural constraints faced by small enterprises.

Despite their economic importance, MSMEs continue to experience persistent limitations that hinder their growth and sustainability. One of the most critical constraints repeatedly identified in the literature is limited access to business capital and formal financial services (Cruzado et al., 2014; Hj Talip & Wasiuzzaman, 2024; Charfeddine et al., 2024). Many MSMEs operate under conditions of low liquidity, inadequate collateral, and limited financial literacy, restricting their ability to expand production, adopt technology, and improve competitiveness. In developing economies, these constraints are often exacerbated by institutional weaknesses, market uncertainty, and unequal access to financial infrastructure. As a result, government-led financial assistance programs have emerged as important policy instruments aimed at stimulating MSME development and reducing economic vulnerability.

Business capital assistance programs generally seek to address market failures associated with credit access by providing financial support in the form of grants, subsidized loans, revolving funds, or direct capital injections. Theoretically, such interventions are expected to improve MSME productivity, increase operational capacity, and enhance income generation by reducing liquidity constraints and enabling business expansion (Singh et al., 2025; Hasyim & Bakri, 2025). Empirical studies in various developing countries indicate that access to capital can positively influence enterprise performance, particularly in terms of revenue growth, production output, and employment absorption (Karlan & Valdivia, 2011; McKenzie & Woodruff, 2014). However, the effectiveness of financial assistance programs remains highly contested because performance outcomes often vary depending on contextual, institutional, and sectoral conditions.

Several scholars argue that financial support alone is insufficient to generate sustainable business growth if not accompanied by managerial capability, market integration, and institutional support mechanisms (Islam et al., 2025; Ishaq et al., 2024). In many cases, MSMEs receiving capital assistance continue to face operational inefficiencies, weak business planning, and limited access to broader market networks. Consequently, some assistance programs produce only temporary improvements without substantially strengthening long-term business resilience. This debate highlights the need for empirical evaluation of government assistance programs, particularly in regions characterized by economic instability and structural vulnerability.

The issue becomes even more critical in post-disaster economic environments where MSMEs frequently experience severe disruption to productive assets, supply chains, and market activity. Natural disasters often weaken local economies by reducing household purchasing power, damaging infrastructure, and interrupting business continuity. In such contexts, business capital assistance programs are expected to function not merely as growth-oriented interventions but also as recovery and resilience mechanisms that help enterprises restore operational capacity and sustain livelihoods (Adami, 2025; Das & Sharma, 2026). Nevertheless, empirical evidence concerning the actual effectiveness of these programs in post-disaster urban economies remains relatively limited, especially in developing countries.

Palu City in Central Sulawesi, Indonesia, represents an important empirical setting for examining this issue. The city experienced severe economic disruption following the 2018 earthquake, tsunami, and liquefaction disaster that caused extensive damage to infrastructure, commercial activity, and household livelihoods. MSMEs in Palu were among the most affected economic actors because many enterprises lost productive assets, inventory, customer networks, and access to operational capital. In response, both national and local governments introduced various economic recovery programs, including business capital assistance initiatives specifically targeting MSMEs. These programs were intended to accelerate local economic recovery, restore business activity, and strengthen the resilience of small enterprises within the post-disaster economy (Adam et al., 2025; Widyastuti et al., 2023).

Although the implementation of business capital assistance programs has expanded significantly, questions remain regarding their actual effectiveness in improving MSME performance at the local level. Existing studies on MSME financing in Indonesia largely focus on national credit schemes, such as People's Business Credit programs, and tend to emphasize macroeconomic impacts or general access-to-finance issues (Siraj et al., 2024; Mutalib, 2025). Relatively few studies provide localized empirical evidence concerning the effectiveness of direct government capital assistance programs implemented in post-disaster contexts. Moreover, prior research frequently relies on perception-based evaluations without sufficiently examining measurable performance indicators such as income growth, production capacity, operational continuity, and business resilience.

Another limitation within the existing literature concerns the inadequate consideration of sectoral heterogeneity in MSME performance outcomes. MSMEs operating in trade, food processing, manufacturing, and services possess distinct operational structures, turnover cycles, and market characteristics that influence how financial assistance is utilized and transformed into business performance gains (Dewi et al., 2025; Purwanto et al., 2022). Consequently, the effectiveness of capital assistance may vary significantly across sectors and business characteristics. Without contextualized empirical evaluation, policy interventions risk becoming generalized and inefficient, thereby limiting their developmental impact.

In addition, much of the previous literature conceptualizes capital assistance primarily as a financial growth instrument rather than as a resilience mechanism within vulnerable economies. This perspective overlooks the possibility that in post-disaster settings, the primary function of financial support may involve restoring operational stability, maintaining business continuity, and preventing enterprise collapse rather than immediately generating rapid expansion. Understanding this distinction is particularly important for local governments seeking to design more adaptive and sustainable MSME recovery policies.

From a theoretical perspective, the study contributes to the broader discourse on MSME financing and public policy intervention by examining the relationship between financial assistance and enterprise performance within a localized post-disaster economy. The study also responds to calls from development policy scholars for more context-sensitive evaluations of MSME support programs that consider regional vulnerability, institutional capacity, and sectoral dynamics (Woldesenbet Beta & Gezahegn, 2025). By focusing on Palu City, the research moves beyond generalized national analyses and provides empirical insight into how capital assistance operates in economically vulnerable urban areas undergoing recovery and restructuring processes.

The state of the art of this study lies in its outcome-oriented evaluation of a local government business capital assistance program using measurable MSME performance indicators within a post-disaster context. Unlike prior studies that

predominantly examine access to finance in broad terms, this research specifically evaluates whether government-provided business capital assistance contributes significantly to improvements in income, production or sales capacity, and operational continuity among MSMEs in Palu City. The study therefore fills an important research gap concerning localized policy effectiveness in post-disaster economic recovery settings.

Accordingly, this study aims to analyze the effectiveness of the Business Capital Assistance Program in improving MSME performance in Palu City. The novelty of this research lies in its integration of post-disaster economic recovery perspectives with empirical evaluation of MSME financial assistance at the city level. The study contributes theoretically by enriching the literature on MSME resilience and government intervention in vulnerable economies, while practically providing evidence-based recommendations for local policymakers regarding the design of more effective and sustainable MSME support programs.

## **METHODS**

### **Research Design**

This study employed a quantitative research approach using an explanatory cross-sectional design to evaluate the effectiveness of the Business Capital Assistance Program in improving the performance of micro, small, and medium enterprises (MSMEs) in Palu City, Indonesia. A quantitative approach was selected because the study sought to measure the relationship between government-provided capital assistance and MSME performance indicators using systematic statistical analysis. Quantitative methods are widely used in policy evaluation research because they allow objective measurement of causal relationships and facilitate empirical testing of hypotheses related to public intervention outcomes (Creswell, 2014; Wooldridge, 2016).

The explanatory design was considered appropriate because the research aimed not only to describe the condition of MSMEs after receiving assistance but also to analyze whether business capital assistance significantly influenced enterprise performance. The cross-sectional approach enabled the collection of data from MSME beneficiaries at a single point in time after the implementation of the assistance program. This design is commonly used in MSME development studies where longitudinal data are limited but program effectiveness needs to be evaluated efficiently across a relatively broad respondent population (Sekaran & Bougie, 2016).

The conceptual framework of the study positioned business capital assistance as the independent variable and MSME performance as the dependent variable. MSME performance was operationalized through several measurable indicators, including business income, production or sales capacity, and operational continuity. In addition, business age and business sector were included as control variables to account for sectoral heterogeneity and differences in enterprise maturity that may influence performance outcomes.

### **Research Location and Context**

The research was conducted in Palu City, Central Sulawesi Province, Indonesia. Palu City was selected as the study site because it represents a post-disaster urban economy that experienced significant economic disruption following the earthquake, tsunami, and liquefaction disaster in 2018. The disaster caused severe damage to local infrastructure, commercial activity, productive assets, and MSME operations, resulting in widespread business instability and declining household livelihoods.

In response to these conditions, the local government implemented several economic recovery programs, including the Business Capital Assistance Program specifically

targeting MSMEs. The program was designed to restore business activity, improve liquidity among small enterprises, and strengthen local economic resilience during the recovery period. This context provides an important empirical setting for assessing whether government financial assistance contributes effectively to MSME recovery and performance improvement within a vulnerable local economy.

The focus on Palu City also addresses an important gap in MSME policy evaluation literature, which has largely concentrated on national financing programs or metropolitan economic centers while paying limited attention to secondary cities and post-disaster contexts. Consequently, the study provides localized evidence regarding the implementation and effectiveness of financial assistance programs at the municipal level.

### 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 implementation period of the program. These MSMEs operated across several economic sectors, including trade and retail, food and beverage production, services, and small-scale manufacturing. The diversity of sectors was important because sectoral characteristics may influence how financial support affects enterprise performance.

The study used purposive sampling to select respondents who met specific criteria relevant to the research objectives. Purposive sampling is frequently applied in program evaluation research because it enables researchers to focus on participants who possess direct experience with the intervention being examined (Sekaran & Bougie, 2016). The selection criteria required respondents to be officially registered MSMEs, recipients of business capital assistance, and enterprises that had been operating for at least one year before receiving the assistance program. These criteria were intended to ensure that respondents had sufficient business experience to assess changes in performance after receiving capital support.

A total of 150 MSME owners or managers participated in the study. The sample size was considered adequate for multivariate statistical analysis and regression testing because it fulfilled minimum statistical requirements for explanatory quantitative research (Hair et al., 2019). The respondents represented different sectors and business scales, thereby improving the representativeness of the empirical findings.

Table 1 presents the operational definition of the research variables used in the study.

Table 1. Operational Definition of Variables

<b>Variable</b>	<b>Indicators</b>	<b>Measurement Scale</b>
Business Capital Assistance	Amount of assistance, utilization of capital, allocation of funds	Likert Scale
MSME Performance	Income growth, production/sales increase, operational continuity	Likert Scale
Business Age	Duration of business operation	Ordinal
Business Sector	Type of business activity	Nominal

Source: Processed primary data, 2026

As shown in Table 1, the variables were operationalized using measurable indicators adapted from previous MSME financing and performance studies.

## **Data Collection Techniques**

The study utilized both primary and secondary data sources. Primary data were collected through structured questionnaires administered directly to MSME owners and managers. The questionnaire method was selected because it enables standardized data collection and facilitates quantitative comparison across respondents (Creswell, 2014). The questionnaire consisted of closed-ended items designed to measure respondents' perceptions regarding business conditions before and after receiving capital assistance.

Data collection was conducted through face-to-face interviews to ensure clarity of responses and reduce the possibility of incomplete data. This method was considered particularly appropriate given the varying levels of educational background and digital literacy among MSME actors in Palu City. Face-to-face administration also allowed researchers to verify respondent eligibility and improve the reliability of responses through direct interaction (Hair et al., 2019).

The questionnaire items were adapted from established instruments commonly used in MSME financing and performance studies. The indicators measured included changes in business income, production or sales volume, business continuity, and utilization of financial assistance. Responses were measured using a five-point Likert scale ranging from strongly disagree to strongly agree. Secondary data were obtained from official documents issued by the Palu City government, including MSME program reports, policy documents, and beneficiary records related to the Business Capital Assistance Program. These data were used to strengthen contextual understanding and validate information regarding program implementation.

## **Validity and Reliability**

To ensure the quality of the research instrument, validity and reliability testing procedures were conducted before the main survey implementation. Content validity was assessed through expert review involving academics in economics and public policy as well as practitioners familiar with MSME development programs. This process aimed to ensure that questionnaire items adequately represented the conceptual dimensions of business capital assistance and MSME performance.

A pilot test was subsequently conducted on a small group of MSME owners who possessed characteristics similar to the target respondents. Feedback from the pilot study was used to refine question wording, improve item clarity, and minimize ambiguity in the instrument.

Reliability testing was conducted using Cronbach's Alpha coefficient to measure internal consistency among questionnaire items. According to Nunnally and Bernstein (1994), a Cronbach's Alpha value exceeding 0.70 indicates acceptable reliability for social science research instruments. The results of the reliability test showed that all variable constructs achieved satisfactory reliability values, indicating that the instrument was sufficiently consistent for quantitative analysis.

## **Data Analysis Techniques**

The collected data were analyzed using statistical software commonly applied in social science and economic research. The analysis process began with descriptive statistical analysis to summarize respondent characteristics and describe general patterns related to MSME performance after receiving business capital assistance. Descriptive statistics included frequency distributions, means, percentages, and standard deviations.

Inferential statistical analysis was subsequently employed to examine the effect of business capital assistance on MSME performance. Multiple regression analysis was used to determine the magnitude and direction of the relationship between the

independent and dependent variables while controlling for business age and sectoral differences. Regression analysis is widely applied in policy evaluation studies because it enables researchers to identify statistically significant relationships between variables and estimate the explanatory power of the model (Gujarati & Porter, 2009).

The regression model used in this study can be expressed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where Y represents MSME performance, X<sub>1</sub> represents business capital assistance, X<sub>2</sub> represents business age, X<sub>3</sub> represents business sector, and ε represents the error term. The analysis aimed to determine whether business capital assistance significantly contributed to improvements in MSME performance indicators in Palu City.

## RESULTS AND DISCUSSION

This section presents the empirical findings regarding the effectiveness of the Business Capital Assistance Program in improving the performance of micro, small, and medium enterprises (MSMEs) in Palu City. The results are organized systematically based on the research objectives and analytical framework developed in the methodology section. The discussion begins with a descriptive overview of respondent characteristics to provide contextual understanding of the MSME beneficiaries involved in the study. Subsequently, the section examines changes in business income, production and sales performance, and operational continuity after the receipt of capital assistance. The final subsection presents the results of regression analysis used to evaluate the statistical effect of business capital assistance on MSME performance while controlling for business age and sectoral differences. Through this structure, the findings provide a comprehensive overview of how government financial support influences MSME recovery and operational performance in a post-disaster urban economy.

### Characteristics of MSME Respondents

The descriptive analysis indicates that the MSMEs participating in this study represent diverse economic activities within Palu City. Respondents consisted of enterprises operating in trade and retail, food and beverage production, services, and small-scale manufacturing sectors. The diversity of respondents is important because sectoral characteristics influence business operations, capital turnover, and the ability of enterprises to transform financial support into measurable performance outcomes.

Most respondents operated in trade and retail activities, followed by food and beverage businesses. This distribution reflects the structure of the local economy in Palu City, where commercial and consumption-oriented sectors dominate post-disaster economic recovery activities. Furthermore, a substantial proportion of MSMEs had been operating for more than three years, indicating that many respondents possessed prior entrepreneurial experience before receiving business capital assistance.

Table 2. 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%

	3–5 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%

Source: Processed primary data, 2026

Table 2 demonstrates that most MSMEs used the financial assistance primarily for working capital purposes, including purchasing raw materials, maintaining inventory, and supporting daily operational expenses. Only a limited number of enterprises allocated the assistance toward long-term investment activities such as business expansion or equipment acquisition. This pattern suggests that the capital assistance program functioned mainly as a mechanism for restoring operational stability rather than financing strategic expansion.

The findings also indicate that MSMEs in Palu City continue to face liquidity-related constraints during the recovery process. Many respondents emphasized that the assistance helped them stabilize business operations that had previously been disrupted by declining purchasing power and unstable market conditions following the disaster. Therefore, the descriptive results highlight the relevance of financial assistance as an immediate recovery instrument within vulnerable local economies.

### Changes in MSME Income After Capital Assistance

One of the primary indicators used to evaluate program effectiveness was the change in MSME income after receiving business capital assistance. The results reveal a substantial increase in average monthly income among beneficiary enterprises. Most respondents reported improved revenue conditions after obtaining financial support from the local government. Table 3 presents the comparative income conditions before and after the implementation of the assistance program.

Table 3. 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%

Source: Processed primary data, 2026

As shown in Table 3, average monthly income increased from IDR 4,250,000 before assistance to IDR 6,180,000 after assistance, representing an increase of approximately 45.4 percent. This finding indicates that business capital assistance contributed positively to improving the financial condition of MSMEs in Palu City.

The increase in income can be attributed to several operational improvements reported by respondents. Many MSMEs were able to purchase additional inventory, maintain production continuity, and respond more effectively to market demand after receiving capital support. Enterprises operating in trade and food-related sectors particularly benefited from the increased liquidity because these sectors rely heavily on continuous inventory circulation and rapid cash turnover.

However, the results also reveal variations in income improvement across sectors. MSMEs in service-based sectors experienced more moderate increases compared to trade-oriented businesses. This difference may be associated with the relatively slower recovery of demand in service industries and the lower flexibility of service enterprises in scaling operational output immediately after receiving financial support. The findings demonstrate that the Business Capital Assistance Program successfully alleviated short-term liquidity constraints among MSMEs and enabled

beneficiary enterprises to improve their revenue-generating capacity during the recovery period.

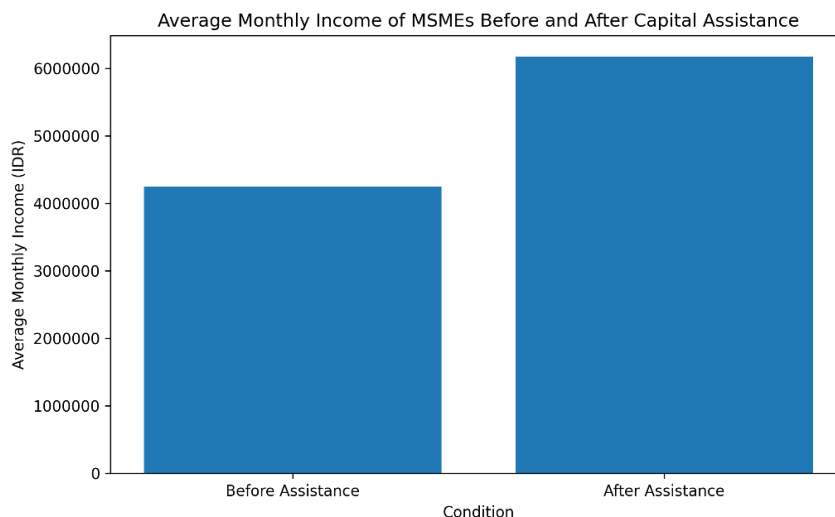


Figure 1. Average Monthly Income of MSMEs Before and After Capital Assistance

Source: Processed primary data, 2026

Figure 1 illustrates the comparison of average monthly income among MSMEs before and after receiving business capital assistance in Palu City. The figure shows a substantial increase in average income from IDR 4,250,000 before assistance to IDR 6,180,000 after assistance. This finding indicates that the Business Capital Assistance Program contributed positively to improving the financial performance of MSMEs by strengthening operational capacity and supporting business continuity during the post-disaster economic recovery process.

### Production and Sales Performance

In addition to income growth, the study examined whether business capital assistance contributed to improvements in production and sales performance. The findings indicate that most respondents experienced increased production capacity and more stable sales activity after receiving the assistance program.

MSMEs engaged in food production and retail trading reported the strongest increases in production and sales volume. These enterprises were able to utilize the additional capital to purchase larger quantities of raw materials, increase inventory availability, and improve supply consistency. As a result, businesses became more capable of meeting customer demand and maintaining stable product availability within local markets.

Figure 2 illustrates the average changes in production and sales performance before and after the implementation of the assistance program across major business sectors.

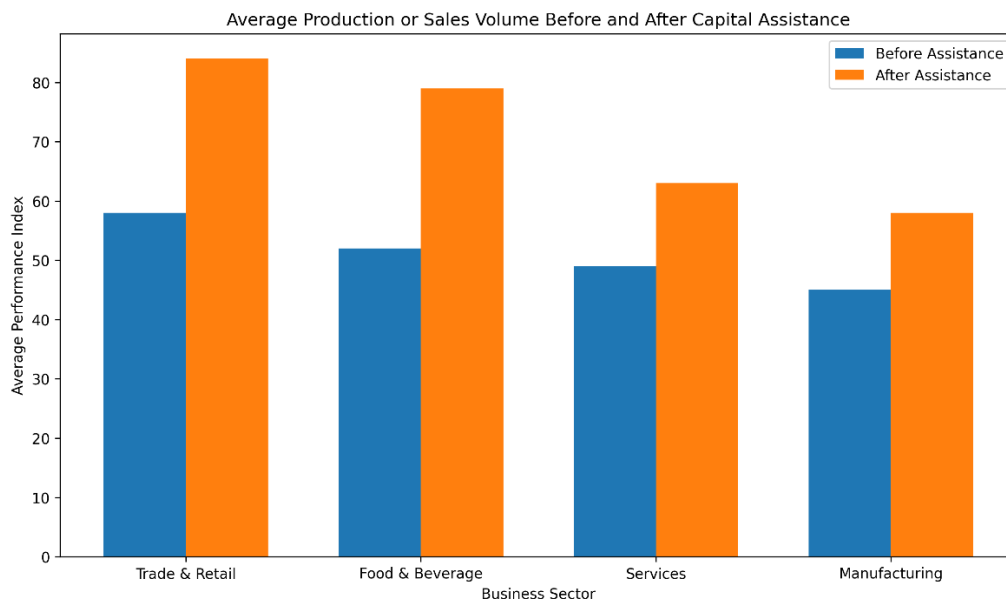


Figure 2. Average Production or Sales Volume Before and After Capital Assistance

Source: Visualization based on processed primary data, 2026

The figure illustrates that the increase in production and sales volume was most visible among enterprises characterized by rapid product turnover and stable local demand. MSMEs operating in trade and food sectors benefited more quickly from the additional capital because these businesses possess shorter production cycles and greater flexibility in adjusting inventory levels.

Meanwhile, manufacturing-oriented enterprises experienced more moderate performance increases because production expansion in manufacturing generally requires larger investment, longer production processes, and additional technological support. Similarly, service-sector MSMEs showed relatively limited operational growth due to demand instability and lower dependence on inventory-based business activities. The findings suggest that sectoral characteristics significantly influence the effectiveness of business capital assistance. Financial support appears to generate stronger short-term outcomes in sectors with fast operational cycles and high market responsiveness. Consequently, program effectiveness cannot be evaluated uniformly across all MSME categories because business structures mediate how financial resources are utilized.

### Business Continuity and Operational Stability

Another important dimension examined in this study concerns business continuity and operational stability after receiving capital assistance. In post-disaster economic environments, the ability of MSMEs to maintain continuous operation is a critical indicator of resilience and recovery effectiveness.

The findings demonstrate that most respondents experienced improvements in operational stability after receiving financial assistance. Many enterprises reported enhanced capacity to maintain daily business operations, pay operational expenses, and avoid temporary business closure. Table 4 presents the conditions of business continuity among MSME respondents after receiving business capital assistance.

Table 4. 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%

Source: Processed primary data, 2026

Table 4 indicates that approximately 72 percent of respondents experienced improved operational continuity, while nearly 69 percent reported stronger ability to meet operational expenses after receiving the assistance program. Only a relatively small proportion of respondents experienced declining conditions.

These results suggest that business capital assistance served not only as a growth-oriented intervention but also as a stabilizing mechanism for MSMEs operating in vulnerable economic conditions. In the context of Palu City, where many enterprises faced prolonged recovery challenges after the disaster, maintaining operational continuity represented a critical achievement for business survival.

Several respondents reported that the financial assistance enabled them to sustain cash flow, maintain employee activity, and continue purchasing operational inputs despite fluctuating local market conditions. Consequently, the program contributed to reducing the risk of business interruption and temporary enterprise closure during the recovery process. The findings also imply that the effectiveness of government financial assistance should not be assessed solely through profit-oriented indicators. In post-disaster economies, the preservation of business continuity and operational resilience constitutes an equally important dimension of MSME performance.

### Regression Analysis of Program Effectiveness

To evaluate the effectiveness of the Business Capital Assistance Program more rigorously, multiple regression analysis was conducted to examine the relationship between capital assistance and MSME performance while controlling for business age and sectoral characteristics.

Table 5 presents the results of the regression analysis.

Table 5. 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 R <sup>2</sup>	0.41		

Source: Processed primary data using regression analysis, 2026

The regression results demonstrate that business capital assistance has a positive and statistically significant effect on MSME performance. The coefficient value of 0.347 with a significance level below 0.05 indicates that increases in business capital assistance are associated with improvements in enterprise performance indicators.

The analysis also reveals that business age significantly influences MSME performance. Older enterprises generally demonstrated stronger performance outcomes because they possessed greater operational experience, more established customer networks, and higher adaptive capacity during economic recovery processes. Similarly, business sector significantly affected performance outcomes. Enterprises operating in trade and food-related sectors showed stronger positive responses to financial assistance compared to manufacturing and service-oriented businesses. This finding reinforces the earlier descriptive results indicating that sectoral structure mediates the effectiveness of financial support.

The adjusted R<sup>2</sup> value of 0.41 indicates that approximately 41 percent of the variation in MSME performance can be explained by the variables included in the regression model. While this demonstrates moderate explanatory power, it also suggests that

other factors beyond capital assistance contribute to MSME performance. These factors may include managerial capability, market access, entrepreneurial skills, digital adaptation, and broader institutional conditions. The regression analysis confirms that the Business Capital Assistance Program contributed significantly to improving MSME performance in Palu City. The findings provide empirical evidence that government financial support can strengthen income generation, operational stability, and business continuity within post-disaster local economies when appropriately targeted toward MSME beneficiaries.

### **Business Capital Assistance as a Mechanism for MSME Recovery and Operational Resilience in Post-Disaster Economies**

The findings of this study demonstrate that the Business Capital Assistance Program contributed positively to improving MSME performance in Palu City, particularly in terms of income growth, production stability, and operational continuity. However, the significance of these findings extends beyond the immediate increase in business performance indicators. The study provides important insight into how government financial assistance functions within a post-disaster urban economy characterized by vulnerability, disrupted market structures, and limited institutional capacity. The discussion therefore focuses on interpreting the empirical findings in relation to previous studies, theoretical perspectives, and practical policy implications while emphasizing the novelty and contribution of the research.

One of the most important findings of this study is the positive relationship between business capital assistance and MSME income improvement. This finding is consistent with previous research emphasizing that access to financial capital remains one of the primary determinants of MSME performance in developing economies (Kumarasamy et al., 2024; Mayndarto, 2025). Financial constraints often limit the ability of MSMEs to maintain inventory, expand production, and stabilize cash flow, particularly in economically vulnerable regions. The increase in average monthly income observed among MSME beneficiaries in Palu City supports the argument that capital assistance can reduce liquidity barriers and enable enterprises to restore operational activities more effectively.

The findings are also aligned with the work of Matsali et al. (2025), who found that financial support programs in developing countries tend to produce measurable short-term gains in enterprise income and productivity. Similarly, Yetti et al. (2025) argued that access to business support mechanisms can enhance microenterprise operational capacity when combined with entrepreneurial adaptation. In the context of Palu City, the capital assistance program appears to have strengthened the ability of MSMEs to respond to local market demand after experiencing economic disruption caused by the 2018 disaster.

Nevertheless, this study also reveals that the effectiveness of capital assistance differs across business sectors. MSMEs operating in trade and food-related sectors experienced stronger performance improvements compared to service-oriented and manufacturing enterprises. This finding supports the argument proposed by Yu (2025), who emphasized that enterprises with rapid turnover cycles and flexible inventory systems are more capable of transforming financial support into immediate business gains. Trade and food enterprises generally rely on short production cycles and daily cash circulation, making them highly responsive to liquidity injections.

In contrast, manufacturing and service enterprises demonstrated more moderate improvements because these sectors often require longer production processes, technological investment, and broader market access. This finding differs slightly from studies conducted in more industrialized urban settings where manufacturing MSMEs frequently demonstrate stronger scalability after receiving financial support (Chibueze, 2024). The difference may be explained by the local economic structure

of Palu City, where post-disaster recovery conditions continue to constrain production infrastructure and market integration. Therefore, the effectiveness of financial assistance cannot be separated from contextual economic conditions and sectoral characteristics.

Another important contribution of this study concerns the role of business capital assistance in strengthening operational continuity and enterprise resilience. Existing literature on MSME financing often emphasizes growth-oriented outcomes such as profit increase, productivity, and business expansion (Bhatia, 2026; Glorianismus et al., 2025). However, the findings of this study suggest that in post-disaster economies, the primary function of capital assistance may involve maintaining business survival and stabilizing operational activities rather than promoting rapid expansion. This finding is particularly relevant because many MSMEs in Palu City experienced disruptions to assets, customer networks, and supply chains after the disaster. In such contexts, operational continuity becomes a crucial indicator of business recovery. The findings therefore support the argument advanced by the Bachtiar et al. (2023), who emphasized that financial support in post-crisis environments often serves as a resilience mechanism that enables enterprises to survive periods of economic instability.

The emphasis on operational resilience represents one of the main novelties of this study. Unlike many previous studies that conceptualize capital assistance primarily as a growth instrument, this research demonstrates that government financial support also performs an important stabilizing function in vulnerable urban economies. The findings contribute to the theoretical discussion on MSME resilience by showing that enterprise performance in post-disaster settings should not be measured exclusively through profitability indicators but also through the capacity to sustain operations and avoid business closure.

Furthermore, the regression analysis revealed that business age significantly influences MSME performance outcomes. Older enterprises tended to demonstrate stronger adaptive capacity and better utilization of financial assistance. This finding is consistent with previous studies suggesting that accumulated entrepreneurial experience, customer networks, and operational maturity contribute positively to enterprise resilience and strategic decision-making (Kling et al., 2025). Established businesses generally possess more stable organizational routines and greater familiarity with market fluctuations, enabling them to utilize external support more efficiently.

However, the findings also indicate that business capital assistance alone does not fully explain MSME performance. The regression model showed moderate explanatory power, implying that additional variables beyond financial support affect business outcomes. This result aligns with Saifurrahman and Kassim (2023), who argued that access to finance represents only one dimension of MSME development and must be accompanied by managerial capability, market integration, and institutional support. Without complementary interventions, the long-term impact of financial assistance may remain limited or temporary.

This study therefore reinforces the growing consensus within development policy literature that MSME support programs should adopt a multidimensional approach rather than relying solely on financial assistance. Previous studies have shown that integrating business training, mentoring, and market linkage programs with financial support produces more sustainable enterprise performance improvements (Dahlani & Sulaksono, 2024; Tolossa et al., 2024). The findings from Palu City support this perspective because several MSMEs that received financial assistance still experienced challenges related to business management, digital adaptation, and market expansion.

From a theoretical perspective, this study contributes to the literature on MSME financing and public policy intervention in three important ways. First, the study extends existing theories on MSME financial constraints by demonstrating that the impact of capital assistance is strongly shaped by post-disaster economic conditions and sectoral characteristics. Second, the research contributes to resilience-based perspectives on MSME development by conceptualizing financial assistance as a mechanism for operational stabilization rather than solely business growth. Third, the study provides localized empirical evidence from a secondary urban economy in Indonesia, thereby addressing the overconcentration of MSME research in metropolitan areas and national-level policy analysis.

The practical contribution of this study is equally important. For policymakers, the findings indicate that business capital assistance programs can effectively support MSME recovery and short-term operational performance in vulnerable economies. However, the results also suggest that financial assistance programs should be more adaptive and sector-sensitive. Trade and food enterprises may require rapid liquidity support, while manufacturing and service MSMEs may benefit more from integrated programs involving technology support, training, and market facilitation.

Moreover, local governments should recognize that post-disaster MSME recovery requires long-term institutional commitment rather than one-time financial intervention. The effectiveness of future assistance programs could be enhanced through better targeting mechanisms, monitoring systems, and integration with digital business development initiatives. In addition, policy evaluation should incorporate resilience-oriented indicators such as operational continuity and business survival alongside traditional financial performance measures.

The implications of this study extend beyond the context of Palu City. Many developing regions face increasing exposure to economic shocks, disasters, and market instability resulting from climate change, global crises, and structural inequality. Consequently, understanding how government financial assistance influences MSME resilience has broader relevance for sustainable local economic development. The findings suggest that MSME support policies should be designed not only to stimulate economic growth but also to strengthen adaptive capacity and community resilience within vulnerable local economies.

Despite its contributions, this study has several limitations. First, the research employed a cross-sectional design, which limits the ability to examine long-term causal relationships between capital assistance and MSME performance. The observed improvements may reflect short-term recovery dynamics rather than sustained structural transformation. Second, the study relied primarily on self-reported performance measures obtained through questionnaires. Although perception-based measures are commonly used in MSME research, they may introduce response bias and limit objective verification of financial outcomes.

Third, the study focused exclusively on MSMEs that received government assistance in Palu City, thereby limiting the generalizability of findings to other regional contexts with different economic structures and institutional conditions. Future research should therefore employ longitudinal approaches to evaluate the sustainability of MSME performance improvements over time. Comparative studies across multiple post-disaster regions would also help identify contextual factors influencing program effectiveness. Additionally, future research could integrate qualitative methods such as in-depth interviews and case studies to explore how MSME owners strategically utilize financial assistance within different sectors and recovery conditions. Further investigation into digital transformation, entrepreneurial capability, and institutional governance could also enrich understanding of the factors shaping MSME resilience in vulnerable economies.

## CONCLUSION

This study demonstrates that the Business Capital Assistance Program contributed significantly to improving the performance of micro, small, and medium enterprises in Palu City. The findings indicate that financial assistance positively affected business income, production and sales capacity, and operational continuity, particularly among enterprises operating in trade and food-related sectors. The study also reveals that capital assistance functioned not only as a growth-support mechanism but also as an instrument for strengthening business resilience within a post-disaster urban economy. These findings confirm that access to financial support remains essential for reducing liquidity constraints and stabilizing MSME operations during economic recovery processes.

From a theoretical perspective, this research contributes to the literature on MSME development by emphasizing the role of financial assistance in enhancing operational resilience rather than merely promoting business expansion. The study also provides localized empirical evidence regarding government intervention effectiveness in secondary urban economies affected by disaster-related disruption. Practically, the findings suggest that MSME assistance programs should integrate financial support with complementary interventions such as managerial training, digital adaptation, and market facilitation to achieve more sustainable outcomes. However, this study is limited by its cross-sectional design and reliance on self-reported performance measures. Future studies are encouraged to employ longitudinal and mixed-method approaches to examine long-term program impacts and broader institutional factors influencing MSME resilience and sustainability.

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