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Subjective Performance of Micro, Small, and Medium Enterprise: Financial Literacy, Financial Management, and Perceived Business Income Capacity

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Abstract: Micro, small, and medium-sized enterprises (MSMEs) operating in traditional production clusters often rely on owner-managers' financial capability, daily financial routines, and income capacity to sustain business performance. However, evidence remains limited on how these factors are jointly associated with MSME performance in highly localized, owner-managed manufacturing clusters. This study examines the associations of financial literacy, financial management, and perceived business-income capacity with subjective performance among concrete sanggah manufacturing MSMEs in Desa Adat Kapal, Indonesia. Using a quantitative cross-sectional design, data were collected from the full population of 30 MSME owners through a structured questionnaire and analyzed using validity and reliability tests, classical assumption tests, and multiple linear regression. Financial literacy (β = 0.355, p = 0.014), financial management (β = 0.319, p = 0.042), and perceived business-income capacity (β = 0.354, p = 0.010) were positively associated with subjective MSME performance. The model accounted for 69.7% of the observed variance (adjusted R^2 = 0.662). These results provide context-specific evidence that owner-manager capability, financial routines, and perceived resource capacity are jointly relevant to performance perceptions. MSME-development programs may therefore combine financial-literacy education, simple bookkeeping and control practices, and income-capacity support, while future studies should verify these associations using objective, longitudinal, and multi-source data.

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INTRODUCTION

Micro, small, and medium-sized enterprises (MSMEs) play an essential role in employment creation, local production, and economic resilience, but their performance is often constrained by limited managerial capability and financial resources. In owner-managed enterprises, financial decisions are usually made directly by the business owner, making financial literacy and day-to-day financial discipline central to business continuity. Financial literacy helps owners interpret financial information, assess alternatives, and make more informed financing and investment decisions, while financial management converts that knowledge into budgeting, recording, reporting, and control practices (Anshika & Singla, 2022; Otoo, 2024). Financial health and adequate resource capacity are equally important because MSMEs must maintain liquidity, finance production, and respond to changing market conditions to remain resilient and competitive(Babic et al., 2026).

These financial capabilities are particularly relevant in traditional manufacturing clusters, where businesses commonly operate with informal structures, limited specialist staff, and close links between household and business finances. The concrete sanggah manufacturing MSMEs in Desa Adat Kapal represent such a setting. They are locally embedded, owner-managed enterprises whose continuity

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depends on the ability to finance materials and labor, control production costs, maintain market coverage, and reinvest business income (Dörry, 2025; Glover et al., 2026; Sharma, 2026). Traditional enterprises of this kind can function as community 'bedrock' businesses because they support local livelihoods and remain closely connected to community needs (Wilson et al., 2022). Their performance, however, depends not only on market demand but also on how effectively owners combine financial knowledge, operational routines, and available economic resources.

Previous studies generally show that financial literacy can improve access to finance, firm growth, sustainability, and MSME performance (Adomako et al., 2016; Hussain et al., 2018). More recent reviews conceptualize financial literacy as a multidimensional owner-manager capability comprising knowledge, skills, attitudes, confidence, and financial behavior (Graña-Alvarez et al., 2024; Molina-García et al., 2023). Research has also expanded toward mediation and moderation mechanisms involving financial access, risk management, and competitive advantage (Hererra et al., 2023). Nevertheless, the evidence remains fragmented in terms of theoretical framing, measurement, and contextual coverage (Bani-Khaled et al., 2025). Much of the literature uses broad, multi-sector MSME samples or focuses on access to finance and digital financial inclusion. Consequently, less is known about how financial literacy, financial management, and income jointly explain performance in a highly localized traditional manufacturing cluster.

This study addresses that gap through an integrated financial-capability perspective. Human capital theory explains financial literacy as productive knowledge and skill that can improve the quality of owner-manager decisions (Lusardi & Mitchell, 2014). A financial-management perspective explains how that knowledge becomes performance-relevant through concrete routines such as budgeting, transaction recording, financial reporting, and control (Otoo, 2024). The resource-based view complements these perspectives by emphasizing that capabilities produce stronger outcomes when firms possess and effectively deploy valuable resources (Rodrigues et al., 2021). In this study, financial literacy therefore represents cognitive capability, financial management represents operational discipline, and income represents the economic resource capacity that supports business continuity and development.

Financial literacy is expected to be positively associated with MSME performance because financially literate owners are better able to distinguish business and personal finances, evaluate financial products, understand risk–return trade-offs, and allocate funds to working capital, debt repayment, or reinvestment. Such capability is especially important in small enterprises that lack specialized accounting and finance personnel. Prior evidence links financial literacy with the productive use of financial access, growth, and sustainability (Adomako et al., 2016). In concrete sanggah manufacturing MSMEs, it may accompany better decisions concerning material costs, pricing, capital use, and business expansion. Accordingly, Hypothesis 1 (H1) proposes a positive association between financial literacy and MSME performance.

Financial management is expected to be positively associated with performance because it structures how business funds are planned, used, monitored, and controlled (Al-Dhubaibi et al., 2024; Al-Hashimy & Yao, 2026; Quarshie et al., 2026). Budgeting helps owners anticipate production and labor requirements; recording documents cash inflows and outflows; reporting summarizes financial conditions; and control helps identify inefficiencies. These practices reduce confusion between available cash and profit and provide information for evaluating liquidity and capital requirements. Research identifies financial-management practices as performance-relevant capabilities in small enterprises

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(Otoo, 2024). Accordingly, Hypothesis 2 (H2) proposes a positive association between financial management and MSME performance.

Perceived business-income capacity represents the owner's assessment of the adequacy and continuity of income available from business operations and related sources. In production-based MSMEs, adequate income capacity may accompany the ability to purchase materials, pay labor, maintain working capital, and continue production. From a resource-based perspective, financial resources are relevant when deployed alongside managerial capabilities ((Rodrigues et al., 2021), while evidence from resource-constrained enterprises links resource acquisition and utilization with performance (Abid et al., 2023). Accordingly, Hypothesis 3 (H3) proposes a positive association between perceived business-income capacity and MSME performance.

The three predictors may also be jointly associated with performance. Financial literacy represents decision capability, financial management represents the routines through which decisions are implemented, and perceived income capacity represents available economic resources (Fatmala et al., 2026; Mang'ana, 2026). Knowledge without implementation may remain unused, routines may be difficult to maintain without resources, and income capacity may not accompany sustained achievement without financial discipline. This complementary interpretation is consistent with calls to connect financial knowledge, behavior, capability, resources, and MSME performance more systematically (Graña-Alvarez et al., 2024; Molina-García et al., 2023). Accordingly, Hypothesis 4 (H4) proposes that the three predictors are jointly positively associated with MSME performance.

The novelty of this study lies in testing these three complementary determinants within the full population of a specific traditional manufacturing cluster rather than a heterogeneous regional MSME sample. The study examines all 30 owners of concrete sanggah manufacturing MSMEs in Desa Adat Kapal and positions MSME performance as a multidimensional outcome reflected in profit, market coverage, labor utilization, and capital development. This micro-contextual design does not seek broad sectoral generalization; instead, it provides context-sensitive evidence about how cognitive capability, operational financial discipline, and economic resource capacity operate together in locally embedded, owner-managed enterprises.

Accordingly, this study aims to analyze the partial and joint associations of financial literacy, financial management, and perceived business-income capacity with subjective MSME performance. By clarifying their relative and combined statistical contributions, the study extends a financial-capability perspective in a traditional manufacturing context. The proposed relationships are summarized in Figure 1.

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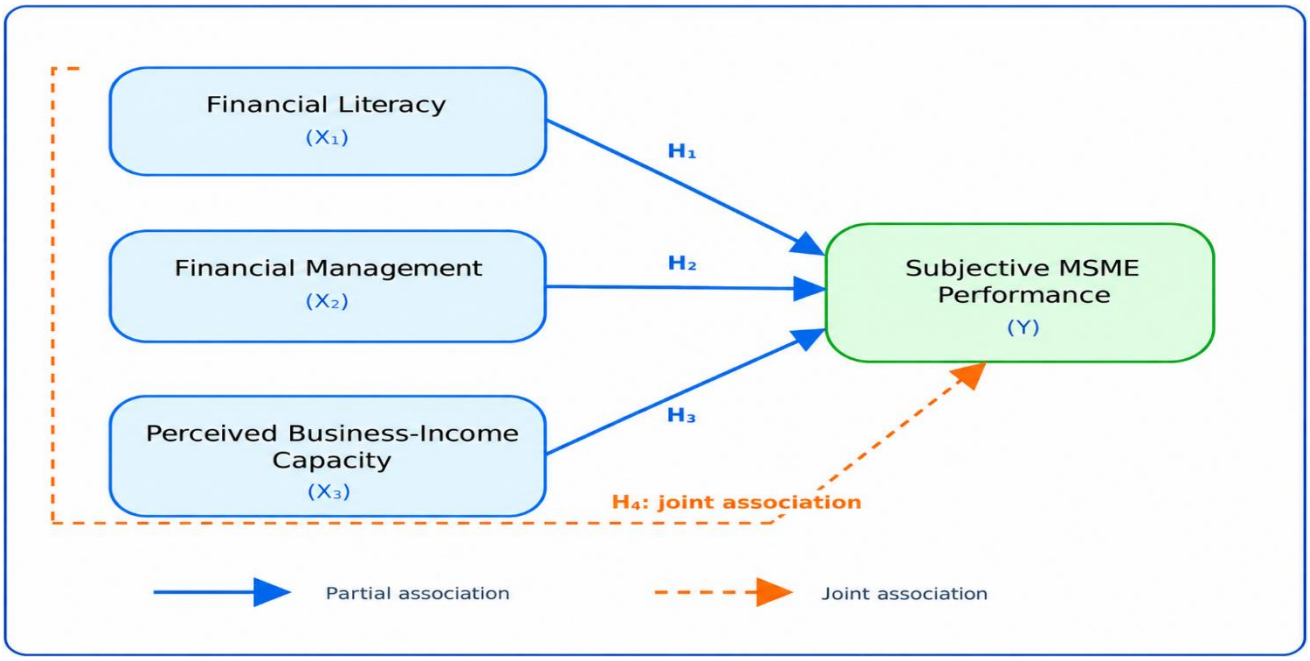

Figure 1. Conceptual Framework of the Proposed Associations

RESEARCH METHODS

Research Design

This study employed a quantitative explanatory research design to examine the association between financial literacy, financial management, perceived business-income capacity, and micro, small, and medium enterprise performance. The quantitative approach was considered appropriate because the study aimed to test theoretically derived relationships among measurable constructs and to estimate the extent to which variations in subjective MSME performance can be explained by financial literacy, financial management practices, and income. The design was cross-sectional, as data were collected from respondents at a single point in time and analyzed statistically to identify the direction and significance of the relationships among variables.

The study adopted a multiple linear regression framework because the research model consists of three independent variables and one dependent variable. Financial literacy was treated as the first independent variable, financial management as the second independent variable, and perceived business-income capacity as the third independent variable. subjective MSME performance was specified as the dependent variable. This analytical design allows the study to estimate the partial contribution of each predictor while simultaneously accounting for the other predictors included in the model.

Research Context and Unit of Analysis

The empirical context of this study was the concrete sanggah manufacturing MSME sector in Desa Adat Kapal. This context was selected because these enterprises represent a distinctive local business cluster in which financial capability, financial management practices, and income generation are directly relevant to business continuity and performance. The study focused on MSME owners because they are the primary decision-makers in financial planning, operational control, income management, and business development.

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The unit of analysis was the individual MSME. Each observation represents one concrete sanggah manufacturing enterprise operating in Desa Adat Kapal. The owner of each enterprise served as the respondent because the owner was assumed to possess the most relevant knowledge regarding financial practices, perceived business-income capacity, and enterprise performance.

Population and Sampling Procedure

The population consisted of all concrete sanggah manufacturing MSMEs located in Desa Adat Kapal. Based on the population frame available for this study, there were 30 MSMEs operating in this sector. Because the population was relatively small and clearly identifiable, the study used a saturated sampling technique, in which all members of the population were included as research respondents. This sampling approach was appropriate because it minimized sampling error and allowed the study to capture the full population of relevant MSMEs within the selected research context.

The final sample therefore consisted of 30 MSME owners. Although the sample size reflects the complete population of the selected local business cluster, the findings should be interpreted within the boundaries of this specific context. The results provide evidence on the financial and managerial determinants of performance among concrete sanggah manufacturing MSMEs in Desa Adat Kapal, rather than a broad generalization to all MSME sectors.

Data Sources and Data Collection

Primary data were obtained from the owners of the concrete sanggah manufacturing MSMEs through a structured questionnaire. The questionnaire captured owner-reported financial literacy, financial-management practices, perceived business-income capacity, and perceived MSME performance. Field observations and interviews were used to clarify the operating context; they were not treated as independent quantitative measures of the four constructs. Consequently, the principal statistical variables originated from the same respondents and were collected at one point in time.

Secondary data were obtained from prior studies, books, reports, and other relevant documentary sources. These sources were used to support conceptual development, operationalization of variables, and interpretation of the empirical context. Documentation was also used to complement field data and to strengthen the researcher's understanding of the characteristics of the concrete sanggah manufacturing MSME sector.

Measurement of Variables

The study measured four constructs: financial literacy, financial management, perceived business-income capacity, and subjective MSME performance. Financial literacy refers to owners' knowledge, skills, confidence, attitudes, and behavior in making financial decisions. Financial management refers to budgeting, recording, reporting, and control practices used to plan and monitor business funds. Because income was measured through Likert-scale responses rather than audited monetary records, perceived business-income capacity is interpreted in this study as perceived income capacity: the owner's assessment of the adequacy and continuity of income generated by business operations and related business sources. subjective MSME performance is likewise interpreted as subjective business performance, reflected in owner-reported achievement relating to profit, market coverage, labor utilization, and capital development.

All items used a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), as shown in Table 1. Higher values indicate a higher level of the construct represented by the item. Responses were grouped by construct for validity, reliability, and regression analyses. The retained man-

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uscript materials do not provide sufficient item-level documentation to verify reverse-coded items or reconstruct additional data-cleaning decisions; this reporting limitation is acknowledged explicitly rather than supplemented with unverified procedures.

Table 1. Measurement Scale Used in the Questionnaire

Response Category	Code	Score
Strongly Agree	SA	5
Agree	A	4
Moderately Agree	MA	3
Disagree	D	2
Strongly Disagree	SD	1

Table 2 distinguishes the conceptual content of each construct and the number of questionnaire items reported in the study. Financial literacy and financial management each consisted of eight items, perceived business-income capacity consisted of four items, and subjective MSME performance consisted of eight items. This distinction is important because perceived business-income capacity represents perceived resource capacity, whereas subjective MSME performance represents perceived achievement.

Table 2. Operationalization of Research Variables

Construct	Operational Definition	Indicators
Financial Literacy	Owner capability to understand and use financial knowledge, skills, confidence, attitudes, and behavior in business decisions.	8 items: financial knowledge; financial skills; confidence in financial institutions and products; financial attitudes and behavior.
Financial Management	Owner-reported practices for planning, organizing, monitoring, and controlling the acquisition and use of business funds.	8 items: budgeting; financial recording; financial reporting; financial control.
Perceived Business-Income Capacity	Perceived capacity and continuity of income generated by business operations and other business-related sources; not audited turnover or profit.	4 items: income from core business operations; other business-related income sources.
MSME Performance	Subjective assessment of business achievement over a specified period, distinct from the availability of current income resources.	8 items: perceived profit achievement; market coverage; labor utilization; capital development.

Instrument Validity and Reliability

Instrument validity was assessed using corrected item-total correlation analysis. An item was considered valid when its corrected item-total correlation reached the minimum criterion of 0.30. This procedure evaluates whether each item is consistent with the total score of its intended construct; it does not, by itself, establish discriminant validity between conceptually related constructs.Internal consistency was assessed using Cronbach's alpha, with values above 0.70 interpreted as acceptable. Given the conceptual proximity of perceived income capacity and subjective performance, the results are interpreted cautiously. The distinction between the constructs rests on their operational focus: income captures perceived resource inflow and adequacy, whereas performance captures perceived business achievement.

Analytical Strategy

Multiple linear regression was used to estimate the partial and simultaneous associations of financial literacy, financial management, and perceived business-income capacity with subjective MSME

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performance. Because the research design was cross-sectional, the coefficients are interpreted as conditional associations rather than causal effects.

The regression model was specified explicitly as follows:

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

Where Y denotes subjective MSME performance; α is the intercept; X_1 denotes financial literacy; X_2 denotes financial management; X_3 denotes perceived business-income capacity; β_1, β_2, and β_3 are the partial regression coefficients; and ε is the error term. Each unstandardized coefficient represents the expected change in the MSME-performance score associated with a one-unit increase in the relevant predictor, holding the other predictors constant.

Common Method Considerations

The four principal constructs were measured through a single questionnaire completed by the same owner at one point in time. This design creates a potential risk of common method bias and may inflate associations among conceptually related variables. The available study materials do not contain item-level data required for a retrospective Harman single-factor test; therefore, no unverified diagnostic result is reported. Field observations and interviews strengthened contextual understanding but did not eliminate the single-source nature of the regression data. The coefficients should consequently be interpreted as context-specific associations, and future studies should use temporal separation, multiple respondents, objective records, or marker-variable techniques.

Classical Assumption Tests

Prior to interpreting the regression results, several classical assumption tests were conducted to ensure that the regression model met the requirements of ordinary least squares estimation. The normality test was conducted to examine whether the residuals were normally distributed. The Kolmogorov Smirnov test was used, with a significance value greater than 0.05 indicating that the residuals followed a normal distribution.

Multicollinearity was assessed using tolerance and variance inflation factor values. The model was considered free from multicollinearity when the tolerance value exceeded 0.10 and the variance inflation factor value was below 10. This test was important because high correlations among independent variables may distort coefficient estimates and reduce the reliability of regression interpretation.

Heteroskedasticity was examined using the Glejser test. This test was conducted by regressing the absolute residual values on the independent variables. A significance value greater than 0.05 indicated that the model did not suffer from heteroskedasticity. Meeting these assumptions strengthened the credibility of the regression estimates and supported the validity of the statistical inference.

Hypothesis Testing

Hypothesis testing was conducted using partial and simultaneous significance tests. The partial association of each independent variable was evaluated using the t-test. This test assessed whether financial literacy, financial management, and perceived business-income capacity individually had a statistically significant association on subjective MSME performance. A variable was considered to have a significant partial association when its significance value was less than 0.05.

The joint association of all independent variables was evaluated using the F-test. This test examined whether financial literacy, financial management, and perceived business-income capacity jointly explained variations in subjective MSME performance. The regression model was considered

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statistically significant when the F-test significance value was less than 0.05. The explanatory power of the regression model was evaluated using the coefficient of determination. The coefficient of determination indicates the proportion of variance in MSME performance explained collectively by financial literacy, financial management, and business income. A higher coefficient of determination indicates that the independent variables included in the model explain a larger proportion of the variation in MSME performance.

Statistical Software

All quantitative analyses were conducted using statistical software to perform corrected item-total correlation analysis, Cronbach's alpha reliability analysis, classical assumption tests, multiple linear regression, t-tests, the F-test, and coefficient-of-determination analysis. The software name and version were not specified in the retained manuscript materials and are therefore not inferred.

RESULTS AND DISCUSSION

Measurement Validity and Reliability

Corrected item-total correlations were evaluated against the minimum criterion of 0.30. All reported ranges exceeded this threshold: 0.532–0.810 for MSME performance, 0.540–0.762 for financial literacy, 0.474-0.677 for financial management, and 0.651–0.821 for perceived business-income capacity. These results support item consistency within each construct but should not be interpreted as evidence of discriminant validity between constructs.

Cronbach's alpha values ranged from 0.733 to 0.873, exceeding the 0.70 criterion for all constructs. Perceived business-income capacity had the highest internal-consistency estimate (α = 0.873), followed by MSME performance (α = 0.833), financial literacy (α = 0.822), and financial management (α = 0.733). The instrument therefore demonstrated acceptable internal consistency for the regression analysis.

Table 3. Measurement Validity and Reliability Results

Construct	Number of Items	Item-Total Correlation Range	Cronbach's Alpha	Validity Status	Reliability Status
MSME Performance	8	0.532–0.810	0.833	Valid	Reliable
Financial Literacy	8	0.540–0.762	0.822	Valid	Reliable
Financial Management	8	0.474–0.677	0.733	Valid	Reliable
Perceived Business-Income Capacity	4	0.651–0.821	0.873	Valid	Reliable

Note. The validity evidence reported here is based on corrected item-total correlations; it does not constitute a discriminant-validity test.

Classical Assumption Tests

The Kolmogorov–Smirnov test of the unstandardized residuals produced a statistic of 0.070 and p = 0.200. Because the p-value exceeded 0.05, the normality assumption was not rejected. This result is interpreted as no statistical evidence of a departure from residual normality, rather than proof of perfect normality. Tolerance values for financial literacy, financial management, and perceived business-income capacity were 0.644, 0.522, and 0.712, respectively; the corresponding VIF values were 1.552, 1.916, and 1.405. These values did not indicate problematic multicollinearity. In the Glejser

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tests, p-values were 0.176, 0.704, and 0.791, respectively. Because all exceeded 0.05, no heteroskedasticity was detected using this diagnostic.

Table 4. Classical Assumption Test Results

Diagnostic Test	Indicator	Result	Decision
Normality	Kolmogorov–Smirnov statistic	0.070	Residuals are normally distributed
Normality	p-value	0.200	Normality not rejected
Multicollinearity: Financial Literacy	Tolerance / VIF	0.644 / 1.552	No multicollinearity
Multicollinearity: Financial Management	Tolerance / VIF	0.522 / 1.916	No multicollinearity
Multicollinearity: Perceived Income Capacity	Tolerance / VIF	0.712 / 1.405	No multicollinearity
Glejser: Financial Literacy	Glejser p-value	0.176	No heteroskedasticity
Glejser: Financial Management	Glejser p-value	0.704	No heteroskedasticity
Glejser: Perceived Income Capacity	Glejser p-value	0.791	No heteroskedasticity

Note. All statistics are reported to three decimal places. VIF = variance inflation factor. No case-level influence diagnostics were available.

Influence Diagnostics and Robustness Scope

With only 30 observations, case-level influence diagnostics are important because a small number of observations can materially affect ordinary least squares estimates. Cook's distance, leverage values, casewise residuals, and robust-standard-error estimates were not included in the retained statistical output, and they cannot be recomputed without the respondent-level dataset. Accordingly, the study does not claim that influential observations were ruled out. The coefficient estimates and significance tests should be interpreted as provisional, context-specific evidence and verified in future research using complete case-level diagnostics and, where appropriate, robust standard errors.

Multiple Linear Regression Results

The estimated regression equation was $Y = 0.210 + 0.357X_1 + 0.393X_2 + 0.690X_3$, where Y is subjective MSME performance, X_1 is financial literacy, X_2 is financial management, and X_3 is perceived business-income capacity. Financial literacy was positively associated with performance (B = 0.357, SE = 0.135, β = 0.355, t = 2.639, p = 0.014). Holding the other predictors constant, a one-unit increase in the financial-literacy score corresponded to an expected 0.357-unit increase in the performance score. Financial management was also positively associated with performance (B = 0.393, SE = 0.184, β = 0.319, t = 2.136, p = 0.042); a one-unit increase in its score corresponded to an expected 0.393-unit increase in performance. Perceived business-income capacity showed a positive association (B = 0.690, SE = 0.249, β = 0.354, t = 2.766, p = 0.010); a one-unit increase in this score corresponded to an expected 0.690-unit increase in performance. These interpretations describe adjusted associations within the observed score scales and do not establish causality.

Unstandardized coefficients should not be compared directly when predictor scales differ. The standardized coefficients provide a more appropriate relative comparison: financial literacy (β = 0.355) and perceived business-income capacity (β = 0.354) had nearly equivalent associations with performance, followed closely by financial management (β = 0.319). The small differences among these β values do not, by themselves, establish that one predictor is substantively dominant.

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Table 5. Multiple Linear Regression Estimates

Predictor	Unstandardized Coefficient (B)	Std. Error	Standardized Coefficient (β)	t-value	p-value	Decision
Constant	0.210	3.729	—	0.056	0.955	—
Financial Literacy	0.357	0.135	0.355	2.639	0.014	Significant
Financial Management	0.393	0.184	0.319	2.136	0.042	Significant
Perceived Business-Income Capacity	0.690	0.249	0.354	2.766	0.010	Significant

Note. B = unstandardized coefficient; SE = standard error; β = standardized coefficient. All p-values are two-tailed and reported to three decimal places.

Model Fit and Explanatory Power

The multiple correlation coefficient was R = 0.835. The model accounted for 69.7% of the observed variance in subjective MSME performance (R^2 = 0.697), while the adjusted value was 66.2% (adjusted R^2 = 0.662). Thus, 30.3% of the variance remained outside the three-predictor model. Given the small, localized census, these estimates describe explanatory fit within the studied cluster and should not be interpreted as population-wide predictive performance. The omnibus regression test was statistically significant, $F(3, 26) = 19.900$, $p < 0.001$. This result indicates that the three predictors jointly improved model fit relative to an intercept-only model in the observed sample. It supports a simultaneous statistical association with MSME performance, not a causal conclusion.

Table 6. Model Summary and ANOVA Results

Model Indicator	Value
R	0.835
R^2	0.697
Adjusted R^2	0.662
Std. Error of the Estimate	1.90396
Regression Sum of Squares	216.415
Residual Sum of Squares	94.252
Total Sum of Squares	310.667
Regression df	3
Residual df	26
F-statistic	19.900
p-value	< 0.001

Note. N = 30. R^2 values are descriptive of model fit in the studied cluster.

Hypothesis Testing Summary

H1–H3 were statistically supported because each predictor had a positive coefficient with $p < 0.05$. H4 was supported by the statistically significant omnibus F-test. Here, 'supported' means that the proposed associations were consistent with the observed cross-sectional data; it does not mean that causal relationships were demonstrated.

Table 7. Summary of Hypothesis Testing

Hyp.	Relationship Tested	Statistical Evidence	Outcome
H1	Financial literacy → MSME performance	B = 0.357; β = 0.355; p = 0.014	Supported
H2	Financial management → MSME performance	B = 0.393; β = 0.319; p = 0.042	Supported
H3	Perceived business-income capacity → MSME performance	B = 0.690; β = 0.354; p = 0.010	Supported

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H4	Financial literacy, financial management, and perceived business-income capacity → MSME performance	$F = 19.900$; $p < 0.001$; $R^2 = 0.697$	Supported

Note. Supported indicates statistical consistency with the proposed association; it does not establish causality.

Summary of Empirical Findings

Overall, the reported instrument statistics met the stated item-consistency and reliability criteria, and the available diagnostics did not indicate residual non-normality, problematic multicollinearity, or heteroskedasticity. All three predictors were positively associated with subjective MSME performance, and the model accounted for 69.7% of the observed variance. Because influence diagnostics and robust estimates were unavailable, the results should be interpreted as context-specific evidence for the 30 enterprises studied.

Discussion

Interpretation of the Main Findings

The regression results show positive statistical associations between financial literacy, financial management, perceived business-income capacity, and subjective MSME performance in the concrete sanggah manufacturing cluster. Together, the three predictors accounted for 69.7% of the observed performance variance (adjusted $R^2 = 0.662$). This level of within-sample explanatory fit is consistent with evidence that owner-manager financial capability, financial routines, and access to economic resources are relevant to small-firm outcomes (Abdallah et al., 2025; Adomako et al., 2016; Anshika & Singla, 2022). However, the cross-sectional design and small localized census mean that the findings describe relationships within this cluster rather than causal mechanisms or universal MSME patterns.

Financial literacy had a positive association with subjective performance ($\beta = 0.355$). From a human-capital perspective, financial knowledge, skills, confidence, and attitudes may help owner-managers interpret financial information and evaluate financing, expenditure, and investment alternatives (Lusardi & Mitchell, 2014; Molina-García et al., 2023). This capability is especially relevant in owner-managed MSMEs that lack specialized financial staff and often have less formal boundaries between household and business finances (Anshika & Singla, 2022; Hussain et al., 2018). The result is therefore consistent with the proposition that stronger financial understanding accompanies more deliberate business decisions, although the present data cannot establish that literacy improvements precede or cause performance gains (Merter & Balcıoğlu, 2025; Sharma, 2026).

Financial management was also positively associated with subjective performance ($\beta = 0.319$). Budgeting, transaction recording, reporting, and financial control can provide owners with information for monitoring cash flows, identifying cost inefficiencies, planning working-capital needs, and separating business from personal funds. Prior research similarly links financial-management practices with planning quality, resource allocation, monitoring, and organizational performance (Al-Dhubaibi et al., 2024; Otoo, 2024). In the study context, the association suggests that even simple and consistently applied routines may be relevant to performance perceptions. It should not be interpreted as proof that introducing these routines alone will produce a specific performance increase (Dell'Acqua et al., 2026; Templeton et al., 2026).

Perceived business-income capacity was positively associated with subjective performance ($\beta = 0.354$). Adequate and continuous income may accompany an MSME's ability to replenish materials, pay labor, maintain production, absorb shocks, and pursue market opportunities. This interpretation is

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compatible with research showing that resource constraints shape small-firm continuity and growth (Abdallah et al., 2025; Adomako et al., 2016). Nevertheless, income was measured as owner-perceived capacity, not audited turnover or profit. Its conceptual proximity to perceived profit and capital development in the performance construct may have strengthened the observed association. The coefficient should therefore be interpreted as evidence of related perceptions of resource adequacy and business achievement, not as an objective income effect (Auger et al., 2024; Basileo et al., 2024).

The standardized coefficients were close in magnitude financial literacy $\beta = 0.355$, perceived business-income capacity $\beta = 0.354$, and financial management $\beta = 0.319$. Accordingly, the evidence does not justify treating one predictor as clearly dominant. A more defensible interpretation is that the three constructs represent complementary dimensions of the studied enterprises: financial literacy as cognitive capability, financial management as operational discipline, and income capacity as perceived resource availability. This integrated view responds to calls for MSME research to connect financial knowledge, behavior, organizational capability, and resources rather than examining them in isolation (Graña-Alvarez et al., 2024; Molina-García et al., 2023).

Theoretical Contributions

The principal theoretical contribution is an integrated, context-sensitive interpretation of MSME performance. Human-capital theory explains why financial literacy can function as an owner-manager capability (Lusardi & Mitchell, 2014), financial-management research explains how budgeting, recording, reporting, and control organize daily financial activity (Otoo, 2024), and the resource-based view emphasizes the importance of resources that support the deployment of capabilities (Bhatti et al., 2025). Examining these dimensions together extends direct-effect financial-literacy models and provides a framework for understanding performance perceptions in a traditional, owner-managed manufacturing cluster. The contribution is micro-contextual: it adds evidence from the full population of one cluster without claiming sector-wide generality.

The findings also clarify an important measurement implication for this literature. Financial capability, financial routines, income capacity, and business performance can be conceptually close in owner-reported surveys. Their integration is theoretically useful, but future models should maintain clearer empirical separation by combining validated multi-item scales with objective indicators (Singh et al., 2024). This is particularly important when profit, capital, or cash-generating capacity appears in more than one construct (Qadir, 2026). The present study therefore contributes both an integrated explanatory perspective and a caution about construct boundaries in localized MSME research.

Practical Implications

For MSME owners, the results support a combined capability-and-routine approach. Financial-literacy development can be paired with practical actions such as separating personal and business funds, preparing simple budgets, recording sales and expenses, reviewing cash flows, and monitoring working-capital requirements. These practices are feasible for traditional enterprises because they can be introduced progressively without complex accounting systems. Because the findings are associative, these actions should be treated as evidence-informed recommendations rather than guaranteed causal interventions.

For local governments and MSME-development institutions, a suitable program would combine financial-literacy training, hands-on bookkeeping assistance, financial-control guidance, and support for income capacity. Income-oriented support may include pricing analysis, production planning, mar-

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ket access, product development, and appropriate financing options. Program evaluation should use baseline and follow-up measures and, where possible, objective records so that changes can be assessed more rigorously than in a single cross-sectional survey (Anshika & Singla, 2022; Otoo, 2024)

Boundary Conditions

The study used saturated sampling to cover all 30 concrete sanggah manufacturing MSMEs identified in Desa Adat Kapal. This provides complete coverage of the defined cluster but remains a small analytical sample. Regression coefficients and significance tests may therefore be sensitive to individual observations, and the absence of Cook's distance, leverage, and robust-standard-error diagnostics prevents a complete assessment of that sensitivity. The results should be generalized only to the studied cluster. Service enterprises, digital businesses, urban MSMEs, and larger multi-sector samples may differ in market structure, financial access, managerial formalization, and growth orientation.

Further limitations arise from the cross-sectional, single-respondent questionnaire design. The study cannot establish temporal order or causality, and common method or optimism bias may inflate relationships among owner-reported constructs. Income captures perceived capacity rather than audited monetary income, while performance captures subjective achievement; their conceptual overlap remains a threat to construct validity. In addition, the retained materials do not permit reconstruction of verbatim questionnaire items, reverse coding, missing-data procedures, discriminant-validity analysis, or case-level influence diagnostics. These limitations require cautious interpretation of the reported coefficients and model fit.

Future Research Agenda

Future research should proceed in four priorities. First, measurement studies should use fully documented and validated scales and distinguish perceived income capacity from objective turnover, profit, capital, and employment indicators. Second, longitudinal or repeated-measure designs should test temporal relationships and reduce same-time common method bias. Third, larger comparative samples should evaluate whether the model is stable across traditional manufacturing, services, digital enterprises, and different regions, using Cook's distance, leverage diagnostics, and robust estimation. Fourth, expanded models should prioritize access to finance, market competition, production capacity, technology adoption, and supplier or market-network quality. These variables are especially relevant because they influence whether traditional manufacturers can obtain inputs, reach customers, manage production constraints, and convert financial capability into sustained business outcomes.

CONCLUSION

This study examined the associations of financial literacy, financial management, and perceived business-income capacity with subjective performance among the full population of 30 concrete sanggah manufacturing MSMEs in Desa Adat Kapal. All three predictors had positive, statistically significant coefficients, and the model accounted for 69.7% of the observed performance variance (adjusted R^2 = 0.662). Financial literacy and perceived income capacity had nearly equivalent standardized coefficients, followed closely by financial management. These findings describe complementary relationships among owner capability, financial routines, resource capacity, and performance perceptions within the studied cluster; they do not establish causal effects. The study contributes a localized financial-capability perspective that brings together cognitive capability, operational discipline, and perceived resource availability. Practically, the results support MSME-development programs that inte-

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grate financial-literacy education with simple budgeting, recording, reporting, financial control, pricing, production planning, and market-access assistance. Such recommendations should be implemented with monitoring and objective outcome measures so that their effectiveness can be evaluated rather than assumed. The conclusions are bounded by the small single-cluster sample, cross-sectional design, single-source self-reports, potential common method bias, conceptual proximity of income and performance, and the absence of item-level and case-level diagnostics. Future studies should retain complete instrument and coding documentation, use objective and multi-source performance measures, apply influence and robust-estimation diagnostics, and conduct longitudinal and cross-sector comparisons. Within these boundaries, the study provides context-specific evidence that financial knowledge, financial routines, and perceived income capacity are jointly relevant to how owner-managers assess MSME performance.

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