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Government Policy and SME Sustainability: Unveiling the Mediating Role of Firm Performance in Emerging Economies

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A R T I C L E I N F O

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A B S T R A C T

This study examines the influence of government policy on SME sustainability in Lampung, Indonesia, with firm performance as a mediating variable. Using a quantitative cross-sectional design, data were collected from 143 SME owners and managers through structured questionnaires during a single observation period. The analysis employed Partial Least Squares–Structural Equation Modeling (PLS-SEM) to test the hypothesized relationships. The findings reveal that government policy significantly improves firm performance, which in turn strongly enhances SME sustainability, while the direct effect of policy on sustainability is relatively weaker. This study contributes by demonstrating that policy effectiveness depends on firms' ability to internalize external support into performance. The results imply the need for integrated, capacity-driven policy interventions.

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INTRODUCTION

Small and Medium Enterprises (SMEs) are widely acknowledged as a critical engine of economic development, particularly in emerging economies where they play a central role in job creation, income generation, and poverty alleviation. Across developing countries, SMEs contribute substantially to national output and employment, making them a cornerstone of inclusive and sustainable economic growth (OECD., 2017). In Indonesia, SMEs account for more than 60% of Gross Domestic Product (GDP) and absorb approximately 97% of the total workforce, underscoring their strategic importance in maintaining economic resilience and social stability (Indonesia., 2022). Despite their pivotal role, SMEs remain highly vulnerable to structural constraints such as limited access to finance, weak managerial capabilities, and exposure to market volatility, all of which threaten their long-term sustainability (Kusuma et al., 2020).

Government policy has long been regarded as a key institutional mechanism for shaping the business environment in which SMEs operate. Policy interventions in the form of financial incentives, training programs, regulatory reforms, and market facilitation are designed to enhance firm competitiveness and performance (Kitching et al., 2015). However, empirical findings on the effectiveness of government policy in fostering SME sustainability remain mixed. While some studies report positive outcomes, others indicate that policy interventions alone are insufficient to ensure sustainable business practices and long-term survival (Oktaviani, 2022). This inconsistency suggests that the relationship between government policy and SME sustainability may not be direct, but rather operates through internal firm-level mechanisms.

From a theoretical perspective, both the Resource-Based View (RBV) (Barney, 1991) and Dynamic Capabilities Theory (Teece et al., 1997). emphasize that external resources provided through government policy only generate value when firms are able to internalize them into productive capabilities. In this regard, firm performance—reflected in profitability, productivity, efficiency, and innovation—represents a critical mechanism through which policy inputs are transformed into sustainable outcomes (Imran et al., 2019). Within the Triple Bottom Line (TBL) framework (Elkington, 1997), sustainability extends beyond financial viability to include social responsibility and environmental stewardship. SMEs with stronger performance are more capable of balancing these dimensions, thereby enhancing resilience and long-term sustainability (Yadav et al., 2021). Conversely, firms that prioritize short-term survival over performance improvement often struggle to achieve sustainable outcomes (Susanti & D., 2020).

Recent empirical studies increasingly highlight the mediating role of firm performance in the relationship between government policy and SME sustainability. For instance, (Kinerja et al., 2023) found that government support programs in Indonesia did not exert a significant direct effect on SME sustainability, but indirectly influenced sustainability through improved firm performance. Similarly, (Saputro & R., 2020) reported that training and financing initiatives contributed to sustainability only when they resulted in measurable

performance improvements. These findings align with broader evidence suggesting that government policies cannot guarantee resilience unless SMEs effectively convert external support into productivity, profitability, and innovation capabilities (Prihatiningtias et al., 2021). Despite this growing body of research, studies that explicitly model firm performance as a mediating mechanism remain relatively limited, particularly in regional and non-metropolitan contexts.

In Indonesia, the effectiveness of government support for SMEs is highly context-dependent. Credit schemes such as Kredit Usaha Rakyat (KUR) and entrepreneurship training programs have been shown to improve productivity and competitiveness; however, their impact varies significantly depending on firms' absorptive capacity and sectoral readiness (Suryana & Y., 2020). Evidence from developing economies further indicates that policy frameworks often remain normative rather than substantive, resulting in fragmented implementation and uneven distribution of benefits at the local level (Furyanah et al., 2021) (Warsiyah et al., 2021). These challenges are particularly pronounced in non-metropolitan regions, where institutional support systems and access to resources are relatively weaker.

Lampung Province provides a relevant empirical context to examine these dynamics. SMEs in Lampung play a central role in regional economic development, particularly in agribusiness, food processing, and creative industries that support local livelihoods (T. Tambunan, 2019) (Warsiyah & Ali, 2023). However, many SMEs in the region continue to face constraints related to low technological adoption, limited access to finance, and uneven policy implementation. Although government programs such as training and market facilitation are widely available, SMEs often struggle to translate these interventions into tangible performance gains in terms of productivity and innovation (Fakhrurozi & Purwani, 2023). This context highlights the importance of re-examining how government policy influences SME sustainability through firm-level performance in non-metropolitan and emerging-economy settings.

This study contributes to the literature in three important ways. First, it extends the RBV and TBL frameworks by empirically testing the mediating role of firm performance in the relationship between government policy and SME sustainability. Second, it provides contextual evidence from a non-metropolitan region in Indonesia, thereby enriching the limited empirical literature on SME sustainability in emerging economies beyond major urban centers. Third, it offers practical policy implications by demonstrating that financial assistance alone is insufficient; instead, integrated and context-specific interventions—such as capacity building, mentoring, and digital transformation—are essential to enhance firm performance and achieve sustainable outcomes. Accordingly, this study investigates: (1) whether government policy positively influences SME performance; (2) whether government policy directly affects SME sustainability; (3) whether SME performance positively influences sustainability; and (4) whether SME performance mediates the relationship between government policy and SME sustainability.

LITERATURE REVIEW

Government Policy and SME Development

Government policy plays a fundamental role in shaping the institutional environment within which Small and Medium Enterprises (SMEs) operate, particularly in emerging economies where market imperfections and structural constraints are prevalent. Policies related to financial assistance, regulatory support, training, and market facilitation are designed to reduce barriers to entry, enhance competitiveness, and stimulate firm growth (Chen, 2025). In developing countries, government intervention is often justified by SMEs' limited access to capital, technology, and managerial expertise, which constrains their ability to compete with larger firms (Lisa et al., 2025).

Empirical studies generally suggest that government support can improve SME outcomes, although the magnitude and direction of its impact vary across contexts. For instance, found that supportive government policies strengthened SME resilience during economic downturns by improving access to finance and entrepreneurial orientation (Prasannath Rajendra; Gronum, Sarel, 2024). Reported that government training programs and regulatory facilitation contributed to higher productivity among Indonesian SMEs. However, other studies argue that policy interventions often produce uneven results due to weak implementation, limited monitoring, and low absorptive capacity among SMEs (Zhou, 2022).

These mixed findings indicate that government policy alone does not automatically lead to improved business outcomes. Instead, the effectiveness of policy interventions depends on how firms respond to and utilize the resources provided. This perspective aligns with institutional and resource-based arguments suggesting that policy support functions as an enabling condition rather than a direct determinant of firm success (Gunawan et al., 2022). Consequently, examining the mechanisms through which government policy affects SMEs remains a critical issue in the literature.

Firm Performance as a Strategic Capability

Firm performance represents a central construct in understanding how SMEs convert external support into tangible outcomes. Performance is commonly conceptualized as a multidimensional construct encompassing profitability, sales growth, productivity, innovation, and operational efficiency (Subedi, 2021). From a strategic management perspective, firm performance reflects the effectiveness with which firms deploy and integrate available resources to achieve competitive advantage.

The Resource-Based View (RBV) posits that firm performance is driven by the possession and utilization of valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). Government policies can enhance the availability of such resources by providing access to capital, training, and market opportunities. However, these resources only contribute to performance when firms possess the internal capabilities required to absorb and exploit them effectively (Teece et al., 1997). This argument is further reinforced by Dynamic Capabilities Theory, which emphasizes firms' ability to adapt, integrate, and reconfigure resources in response to environmental changes.

Empirical evidence supports the centrality of performance as a mechanism linking external support to broader outcomes (Li et al., 2021). Demonstrate that firm performance serves as a critical intermediate outcome in explaining how organizational inputs translate into long-term competitiveness (Carnes et al., 2019). The financial literacy and supply chain management improved SME sustainability primarily through their positive impact on performance (Dwyanti, 2024) (Saputeri et al., 2022). These findings suggest that firm performance should not be treated merely as an outcome variable, but as a strategic capability that mediates the influence of external interventions.

SME Sustainability and the Triple Bottom Line

SME sustainability has emerged as a key concern in both academic research and policy discourse, particularly in the context of sustainable development goals. Sustainability is increasingly understood through the Triple Bottom Line (TBL) framework, which integrates economic, social, and environmental dimensions (Elkington, 1997). For SMEs, economic sustainability relates to long-term profitability and business continuity, social sustainability encompasses employee welfare and community engagement, while environmental sustainability refers to responsible resource use and eco-friendly practices.

Research indicates that SMEs often face greater challenges in adopting sustainability practices compared to large firms, due to limited financial resources and managerial capacity (Chenari, 2023). Nevertheless, studies also show that SMEs with strong performance are more likely to invest in sustainable practices, as they possess the financial and organizational slack required to pursue long-term objectives (Bartolacci et al., 2020). This implies that sustainability is not an isolated goal, but an outcome that depends on firms' underlying performance capabilities.

In emerging economies, sustainability outcomes are further shaped by institutional conditions and policy frameworks. While governments increasingly promote sustainability through regulations and incentives, the effectiveness of such policies remains contingent on firms' ability to align sustainability objectives with performance goals (Hafner et al., 2022). As a result, sustainability should be examined not only as a policy outcome, but also as a firm-level process influenced by performance dynamics.

The Mediating Role of Firm Performance

A growing body of literature highlights firm performance as a mediating mechanism between government policy and SME sustainability. Rather than exerting a direct influence, government interventions often improve sustainability indirectly by enhancing firm performance (Quynh & Thi Ngoc, 2022). Provide evidence from Indonesia showing that government support programs improved SME performance, which in turn led to higher sustainability outcomes, while the direct effect of policy on sustainability was weak (Hakim & Fuad, 2024). Similar findings are reported, who observed that training and financing initiatives contributed to sustainability only when they resulted in performance improvements (Sidiq et al., 2024).

These studies suggest that firm performance functions as a transmission channel through which policy inputs are transformed into sustainable outcomes.

This mediating role is particularly important in developing economies, where institutional support may be fragmented and firms must rely heavily on internal capabilities to compensate for external deficiencies (Tunyi et al., 2019). Despite its importance, empirical research explicitly modeling firm performance as a mediator remains limited, especially in non-metropolitan and regional contexts.

Research Gap and Hypotheses Development

Although prior studies have examined the relationship between government policy, firm performance, and SME sustainability, several gaps remain. First, much of the existing literature focuses on direct relationships, overlooking the mechanisms through which policy interventions influence sustainability outcomes. Second, empirical evidence from non-metropolitan regions in emerging economies is still scarce, limiting the generalizability of existing findings. Third, few studies integrate RBV and TBL perspectives to explain how performance capabilities mediate the policy–sustainability nexus.

To address these gaps, this study proposes a conceptual model in which firm performance mediates the relationship between government policy and SME sustainability. Based on the theoretical arguments and empirical evidence reviewed above, the following hypotheses are formulated:

H1: Government policy has a positive effect on SME performance.
H2: Government policy has a positive effect on SME sustainability.
H3: SME performance has a positive effect on SME sustainability.
H4: SME performance mediates the relationship between government policy and SME sustainability.

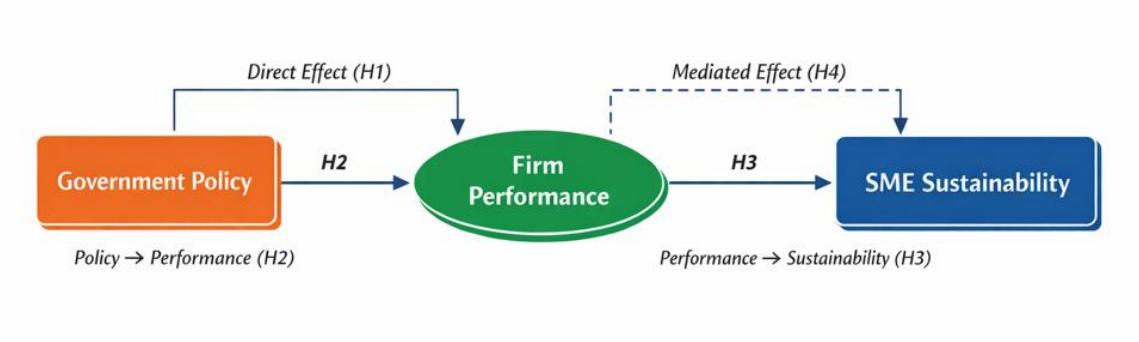

Figure 1. Conceptual Framework

METHODOLOGY

Provide All This study employed a cross-sectional quantitative design underpinned by the positivist philosophy, which emphasizes objectivity, systematic measurement, and replicability in scientific inquiry (Davis et al., 2018). A deductive approach was applied, whereby hypotheses derived from theory and prior research were systematically tested against empirical data, consistent with the quantitative orientation of this study (Baker et al., 2020). By adopting this design, the study aimed to generate generalizable findings on the mediating role of firm performance in the relationship between government policy and SME sustainability in Lampung Province, Indonesia.

Population and Sample

The The target population of this study consisted of Small and Medium Enterprises (SMEs) in Lampung Province, Indonesia. SMEs were selected

because of their strategic role in regional economic development, particularly in agribusiness, food processing, and creative industries, which are also the main focus of government support programs such as Kredit Usaha Rakyat (KUR), entrepreneurial training, and mentoring (Indonesia., 2022). To ensure relevance, strict inclusion criteria were applied: SMEs must have been operating for at least two years. SMEs must report an annual turnover of more than IDR 100 million. SME owners/managers must have knowledge of government policies targeting SMEs. The unit of analysis was the firm, with owners or managers serving as respondents. This is consistent with previous SME research, as they are the most reliable informants about firm-level performance and engagement with government policies (Warsiyah & al., 2023). A purposive sampling technique was employed to identify respondents who met the above criteria. Initially, 150 SMEs were surveyed; however, after data cleaning, only 143 valid responses were retained for analysis. The sample size satisfied the recommendations for Structural Equation Modeling–Partial Least Squares (SEM-PLS), which suggest that medium-to-complex models require 100–150 cases to produce stable and reliable estimates (Hair et al., 2021). The profile of respondents—covering gender, age, education, business sector, years of operation, and number of employees—was summarized using descriptive statistics to provide an overview of the sample.

Data Collection

Data Data were collected using a structured. The instrument was designed based on established scales from prior studies and employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), which is widely recognized for measuring perceptions in management and social sciences (Joshi et al., 2015). The questionnaire was distributed through online channels (Google Forms and email) and offline methods via SME associations, chambers of commerce, and local government offices, ensuring inclusion of respondents with limited digital access (Bryman & A., 2016). Ethical procedures were followed throughout the process: respondents were informed about the objectives of the study, assured of confidentiality, and participation was voluntary. Informed consent was obtained before participation, in line with ethical research standards (Sekaran et al., 2019). To improve data quality, a pilot test involving 20 SME managers was conducted. Feedback was used to refine item wording and eliminate ambiguity, thus strengthening the reliability and face validity of the instrument (Taherdoost & H., 2018).

Measurement of Variables

The constructs in this study were measured using established instruments adapted from prior research to ensure validity and reliability. All items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, following recommendations for capturing perceptions in management and social science research (Joshi et al., 2015). The independent variable, Government Policy (X1), was measured through four dimensions: regulatory support, financial assistance, training and mentoring, and market facilitation. These items were adapted from (Nurhayati et al., 2020), who emphasized the role of government programs in SME development. The

mediating variable, Firm Performance (Z), was assessed through indicators including profitability, sales growth, productivity, innovation, and efficiency. These measures have been widely applied in SME research to capture operational and financial performance (Hair, F., et al., 2022). The dependent variable, SME Sustainability (Y), was operationalized using the Triple Bottom Line (TBL) approach, incorporating economic, social, and environmental sustainability. Economic sustainability included profit stability and business growth, social sustainability encompassed employee welfare and community contribution, and environmental sustainability referred to eco-friendly practices. These indicators were adapted from (Yadav et al., 2021).

All items were tested for reliability and validity. Reliability was assessed using Cronbach's Alpha and Composite Reliability (CR > 0.70). Convergent validity was evaluated using Average Variance Extracted (AVE > 0.50), while discriminant validity was tested with the Heterotrait-Monotrait Ratio (HTMT), following (Hair, Matthews, et al., 2022).

Table 1. Measurement of Variables and Sources

Variable	Dimension / Indicator	Source
Government Policy (X1)	Regulatory support	Nurhayati et al. (2020); Kusuma & Indarti (2020)
	Financial assistance	Nurhayati et al. (2020)
	Training & mentoring	Kusuma & Indarti (2020)
	Market facilitation	Nurhayati et al. (2020)
Firm Performance (Z)	Profitability	Imran et al. (2019)
	Sales growth	Imran et al. (2019)
	Productivity	Hair et al. (2022)
	Innovation	Imran et al. (2019)
	Efficiency	Hair et al. (2022)
SME Sustainability (Y)	Economic sustainability	Yadav et al. (2021)
	Social sustainability	Purwanto & Tamyiz (2022)
	Environmental sustainability	Yadav et al. (2021); Purwanto & Tamyiz (2022)

Data Cleaning

Prior to statistical analysis, a systematic data cleaning process was conducted to ensure the accuracy, reliability, and validity of the dataset. The

initial stage involved screening the collected questionnaires for completeness. Responses with more than 10% missing values were excluded from the analysis, following recommendations (Hair, Hult, et al., 2022). For questionnaires with minor missing data, the mean substitution method was applied, which is commonly used in management and social science research to preserve sample size without introducing significant bias (Allison & D., 2018). The second step focused on the detection of outliers. Outliers were identified using Mahalanobis distance for multivariate analysis, which evaluates the position of each observation in relation to the centroid of the dataset. Cases that exceeded the critical chi-square threshold at $p < 0.001$ were considered extreme and subsequently removed. This step reduced the risk of distortion in parameter estimates (Kline & B., 2016).

To assess normality, skewness and kurtosis values were examined for each indicator. Although SEM-PLS is robust against violations of normality assumptions, extreme deviations were noted and addressed through logarithmic transformation where necessary (Hair, Matthews, et al., 2022). Additionally, multicollinearity was tested using Variance Inflation Factor (VIF), with all values below the threshold of 5, indicating no multicollinearity concerns (Shmueli et al., 2019). After the data cleaning process, 143 valid responses remained for further analysis. These procedures enhanced the reliability of the dataset and ensured that the results generated from SEM-PLS were both robust and generalizable to the target population of SMEs in Lampung Province.

RESEARCH RESULT

This study uses IBM SPSS to analyze the demographic characteristics of respondents, as summarized in Table 4.1, which provides an overview of the composition of the study sample. The majority of respondents were women (80%), while men only accounted for 20%. This distribution is consistent with prior studies highlighting that many SMEs in Indonesia, particularly in the culinary and trading sectors, are predominantly managed by women who play a vital role in sustaining household income and contributing to community economic resilience (T. T. H. Tambunan, 2019). In terms of age, respondents were dominated by the age group of 31–40 years (60%), followed by the age group of 41–50 years (25%), and only a small percentage were over 50 years old (5%). This suggests that most SME owners in Lampung are within an active working age, which is advantageous for adopting new government initiatives and digital practices to improve competitiveness (OECD., 2019).

In terms of marital status, most of the respondents are married (90%), which indicates that their business activities are not only aimed at business growth, but also to support family welfare (Sari et al., 2021) . In terms of technology, as many as 76.1% of respondents have used digital technology in their business, while 23.9% have not, This finding illustrates a digital divide that persists among SMEs, although the majority are increasingly moving toward digital transformation, especially after the COVID-19 pandemic accelerated digital adoption in small businesses (Rahayu et al., 2019), (UNCTAD., 2020). Furthermore, experiences of government assistance also vary: the majority of respondents have attended

training (68.7%), some have access to loans (24%), while 7.3% have never received assistance at all. This pattern indicates that while training programs are the most common intervention, access to financial resources and broader forms of assistance remain limited. Previous research has noted similar challenges in SME policy implementation in Indonesia, where government programs are often fragmented and unevenly distributed (Maharani & Lynch, 2021). These findings are relevant for the research because they show how demographic characteristics and government policy experience can affect the performance and sustainability of MSMEs in Lampung.

Table 2. Responden Profil

Variabel Identitas Responden	Category	Sum	Percentage (%)
Gender	Man	30 Person	20%
	Woman	120 Person	80%
Age (Years)	20 – 30	15 Person	10%
	31 – 40	90 Person	60%
	41 – 50	37 Person	25%
	> 50	8 Person	5%
Marital Status	Marry	135 Person	90%
	Unmarried	15 Person	10%
Using Digital Technology	Ya	114 Person	76,1%
	No	36 Person	23,9%
Have Experienced Government Assistance	Training	103 Person	68,7%
	Loan	36 Person	24%
	No	11 Person	7,3%

Evaluation of the Measurement Model (Outer Model)

Convergent validity

Convergent validity refers to the extent to which a set of indicators for a construct share a high proportion of variance in common (Fornell et al., 1981). In this study, convergent validity was assessed by examining factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). The results indicated that all factor loadings for the items measuring Government Policy, Firm Performance, and Sustainability exceeded the recommended threshold of 0.70, demonstrating that each indicator contributed substantially to its respective construct (Shmueli et al., 2019). Furthermore, the AVE values for all constructs ranged from 0.612 to 0.682, surpassing the minimum requirement of 0.50 (Bagozzi et al., 1988), thereby confirming that the constructs explained more than half of the variance of their indicators. Additionally, the CR values ranged from

0.889 to 0.915, well above the suggested cut-off point of 0.70, which further supports the presence of convergent validity. These results provide strong evidence that the measurement model adequately captures the intended theoretical concepts and can be used confidently in further structural analysis.

Table 3. Measurement Model

Variable	Items	Loadings	AVE	CR	Cronbach's Alpha
Government Policy (X1)	X-1	0.830	0.804	0.953	0.939
	X-2	0.895			
	X-3	0.914			
	X-4	0.920			
	X-5	0.920			
Firm Performance (Z)	Z1	0.778	0.676	0.912	0.880
	Z2	0.869			
	Z3	0.783			
	Z4	0.843			
	Z5	0.835			
SME Sustainability (Y)	Y1	0.809	0.745	0.936	0.914
	Y2	0.861			
	Y3	0.874			
	Y4	0.875			
	Y5	0.894			

The results of the evaluation of the measurement model are shown in Table X. The Government Policy construct (X1) consists of five indicators with a loading value between 0.830–0.920. The entire outer loading value exceeded the minimum threshold of 0.70, which suggests that each indicator has a strong contribution to the constructed being measured (Hair et al., 2019). The Average Variance Extracted (AVE) value for Government Policy is 0.804, well above the cut-off of 0.50 (Fornell & Larcker, 1981), which confirms that this construct is able to explain more than 80% of the variance of the indicator. A Composite Reliability (CR) value of 0.953 and Cronbach's Alpha of 0.939 also showed excellent reliability, exceeding the minimum standard of 0.70 (Nunnally et al., 1994). Construct Firm Performance (Z) is measured by five indicators, with loading ranging from 0.778–0.869. The AVE value of 0.676, the CR of 0.912, and Cronbach's Alpha of 0.880 confirm the existence of high internal consistency. These findings are consistent with previous studies that stated that indicators of profitability, sales growth, innovation, and efficiency are valid dimensions to measure SME performance (Eze V. C.; Bello, A. O., 2020).

Meanwhile, the SME Sustainability (Y) construct has five indicators with a loading value between 0.809–0.894. An AVE of 0.745 indicates that this construct is able to explain more than 74% of the variance of the indicator. The CR values (0.936) and Cronbach's Alpha (0.914) also show excellent reliability. This indicates that the economic, social, and environmental dimensions used truly reflect the concept of SME sustainability, in line with the Triple Bottom Line (TBL) approach widely used in previous research (Liang et al., 2018) . Overall, the test results showed that all research

constructs met the criteria of convergent validity and internal reliability. The entire loading value is above 0.70, AVE is greater than 0.50, and Cronbach's Alpha and Composite Reliability are well above 0.70. Thus, the constructs of Government Policy, Firm Performance, and SME Sustainability can be declared valid and reliable for use in further structural model analysis.

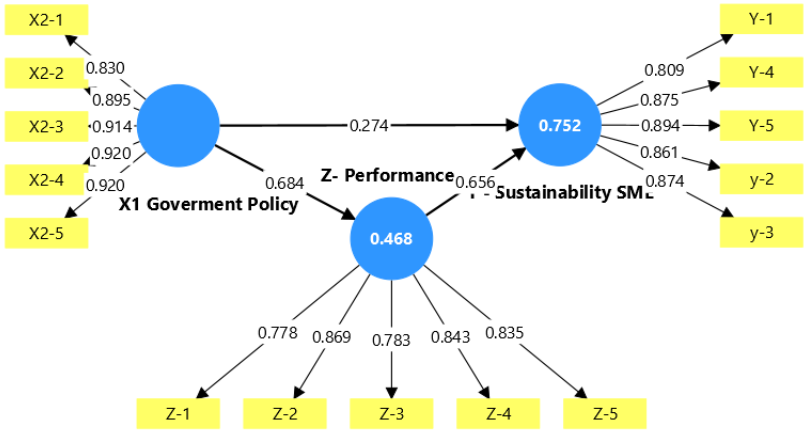

Figure 2 Path diagram with loading factor values

Measurement Reliability

The reliability of the measurement model was assessed using Cronbach's Alpha and Composite Reliability (CR), both of which are widely recommended indicators for evaluating internal consistency in structural equation modeling. Cronbach's Alpha values greater than 0.70 indicate acceptable reliability, while CR values above 0.70 demonstrate satisfactory internal consistency across the indicators of each construct (Nunnally et al., 1994). As presented in Table X, all constructs—Government Policy (X1), Firm Performance (Z), and SME Sustainability (Y)—demonstrated Cronbach's Alpha values ranging between 0.841 and 0.873, exceeding the minimum threshold of 0.70. Similarly, CR values ranged from 0.889 to 0.915, well above the recommended cut-off point. These results confirm that the measurement items consistently represent their respective constructs

Table 4. Measurement Reliability

Construct	Cronbach's Alpha	Composite Reliability (CR)	Conclusion
Government Policy (X1)	0.939	0.953	Reliable
Firm Performance (Z)	0.880	0.912	Reliable
Sustainability (Y)	0.914	0.936	Reliable

The results provide strong evidence that the measurement model possesses adequate internal consistency reliability. Consequently, the constructs can be used confidently in subsequent structural model testing.

Discriminant Validity

Discriminant validity refers to the extent to which a construct is truly distinct from other constructs in the model, both in terms of how it relates to its own indicators and how it differs from other latent variables. In this study, discriminant validity was evaluated using the Heterotrait-Monotrait Ratio of

Correlations (HTMT), which is considered a more reliable criterion compared to the traditional Fornell–Larcker method.

The HTMT results presented in Table X show that all values fall below the conservative threshold of 0.85 and the more liberal threshold of 0.90. Specifically, the HTMT value between Government Policy (X1) and Sustainability (Y) was 0.775, between Government Policy (X1) and Performance (Z) was 0.743, and between Performance (Z) and Sustainability (Y) was 0.925. Although the relationship between Performance and Sustainability was relatively high, it remained below the maximum threshold of 0.95, thus confirming that these constructs are empirically distinct.

Tabel 5 Fornell-Larcker Criterion

	X1 Goverment Policy	Y - Sustainability SME	Z- Performance
X1 Goverment Policy			
Y - Sustainability SME	0.775		
Z- Performance	0.743	0.925	

These results confirm that the constructs used in the model—Government Policy, Firm Performance, and Sustainability—meet the discriminant validity requirements. Hence, each construct captures unique aspects of the conceptual model without excessive overlap.

Evaluation of the Structural Model (Inner Model)

Following the confirmation of the measurement model, the next step was to evaluate the structural model (inner model). This stage assesses the explanatory power and predictive relevance of the model, as well as the significance of hypothesized relationships among constructs. The evaluation was conducted using four criteria: coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and hypothesis testing.

Coefficient of Determination (R^2)

The R^2 values indicate the proportion of variance in the endogenous constructs explained by the exogenous variables. In this study, the R^2 value for Firm Performance (Z) was 0.468, with an adjusted R^2 of 0.464, meaning that Government Policy explained approximately 46.8% of the variance in Firm Performance. This falls within the moderate explanatory power range (Chin & W., 2010). For SME Sustainability (Y), the R^2 value was 0.752 with an adjusted R^2 of 0.749, indicating that Government Policy and Firm Performance together explained 75.2% of the variance in Sustainability. This value is considered substantial, suggesting that the structural model has strong explanatory power in predicting SME sustainability.

Table 6 Coefficient of Determination (R^2)

Endogenous Construct	R^2	Adjusted R^2	Interpretation
Firm Performance (Z)	0.468	0.464	Moderate explanatory power

Sustainability (Y)	0.752	0.749	Substantial explanatory power

These results indicate that while Government Policy moderately influences Firm Performance, the combination of Government Policy and Firm Performance plays a critical role in explaining SME Sustainability. Thus, the model demonstrates both relevance and robustness in predicting the dependent variables.

The effect size (f^2) was analyzed to evaluate the relative impact of each exogenous construct on the endogenous constructs. f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. As shown in Table X, Government Policy (X1) had a medium effect on SME Sustainability ($f^2 = 0.161$) and a very large effect on Firm Performance ($f^2 = 0.878$). These results indicate that government support and interventions contribute substantially to improving SME performance and moderately to SME sustainability when considered directly. Meanwhile, Firm Performance (Z) demonstrated the strongest influence on SME Sustainability, with an f^2 value of 0.924, which exceeds the threshold for a large effect. This finding underscores the critical role of performance as a mediator in ensuring the sustainability of SMEs. It also confirms that government policy indirectly impacts sustainability through its substantial influence on firm performance.

Table 7 Effect Size (f^2)

Exogenous Variable	Endogenous Construct	f^2	Interpretation
Government Policy (X1)	Sustainability (Y)	0.161	Medium effect
Government Policy (X1)	Firm Performance (Z)	0.878	Large effect
Firm Performance (Z)	Sustainability (Y)	0.924	Large effect

These results suggest that while government policy provides a foundation for SME development, its most significant contribution lies in enhancing firm performance, which in turn becomes the primary determinant of long-term sustainability.

Hypothesis Testing (Path Coefficients)

The significance of the hypothesized relationships in the structural model was tested using the bootstrapping procedure with 5,000 subsamples, as recommended in PLS-SEM analysis. Table X presents the path coefficients (β), sample means, standard deviations, t-statistics, and p-values for each hypothesized relationship. The results revealed that Government Policy (X1) had a significant direct effect on SME Sustainability (Y) with a path coefficient of $\beta = 0.274$, $t = 3.504$, and $p < 0.001$. This indicates that government support in the form of regulations, financing, and training contributes positively to the sustainability of SMEs in Lampung Province. Similarly, Government Policy (X1) significantly influenced Firm Performance (Z), with a strong path coefficient of $\beta = 0.684$, $t = 8.782$, and $p < 0.001$. This finding suggests that government interventions directly enhance the operational and financial performance of SMEs.

Finally, Firm Performance (Z) showed the strongest impact on SME Sustainability (Y), with a path coefficient of β = 0.656, t = 10.211, and p < 0.001. This confirms that improved performance in terms of profitability, productivity, and innovation is a critical determinant of long-term SME sustainability.

Table 8. Hypothesis Testing Results

Hipotesis	Path Relation	Path Koefisien (β)	T statistics	P values	Keputusan
H1	X → Z	0.684	8.782	0.000	Supported
H2	X → Y	0.274	3.504	0.000	Supported
H3	Z → Y	0.656	10.211	0.000	Supported
H4	X → Z → Y (Indirec/Mediasi)	0.449	7.132	0.000	Supported mediation

Based on the results of the hypothesis test, all research paths proved significant. H1 shows that government policy (X) has a strong positive effect on MSME performance (Z) (β = 0.684; t = 8.782; p < 0.001). H2 shows that government policy also has a direct effect on MSME sustainability (Y), although with a lower influence (β = 0.274; t = 3.504; p < 0.001). H3 confirms that MSME performance is the strongest predictor of sustainability (β = 0.656; t = 10.211; p < 0.001). Meanwhile, H4 proves a significant mediation effect, where government policy influences sustainability through MSME performance (β = 0.449; t = 7.132; p < 0.001). Thus, MSME performance is an important mechanism that bridges the impact of government policy on business sustainability.

Mediation Analysis

To further examine the mediating role of Firm Performance (Z) in the relationship between Government Policy (X1) and SME Sustainability (Y), a mediation analysis was conducted using the bootstrapping approach with 5,000 resamples. Mediation is confirmed when the indirect path is statistically significant, even if the direct effect is either significant (partial mediation) or insignificant (full mediation). The results presented in Table X indicate that the indirect path from Government Policy to SME Sustainability through Firm Performance was significant (β = 0.449, t = 7.132, p < 0.001). This confirms that Firm Performance mediates the effect of Government Policy on Sustainability. The direct path (β = 0.274, p < 0.001) also remained significant, suggesting a partial mediation effect.

Table 9. Mediation Analysis Results

Relationship	Indirect Effect (β)	t-value	p-value	Mediation Type
X1 → Z → Y	0.449	7.132	0.000	Partial mediation

The mediation analysis demonstrates that Government Policy enhances SME Sustainability both directly and indirectly through Firm Performance. While government interventions—such as financing, training, and market facilitation—contribute directly to sustainability, their largest impact occurs by

improving firm performance first, which then translates into higher sustainability outcomes. This finding aligns with previous studies emphasizing that government policy alone is insufficient to guarantee sustainability unless it is effectively translated into improved operational and financial performance at the firm level (Nurhayati et al., 2020) (Kusuma et al., 2020).

DISCUSSION

The findings indicate that government policy plays an important role in enhancing SME sustainability, primarily through its impact on firm performance. This suggests that policy interventions do not automatically lead to sustainable outcomes unless they are effectively translated into improved productivity, profitability, and innovation at the firm level. In this context, firm performance acts as a key mechanism that bridges external support and long-term sustainability. From a theoretical standpoint, these results support the Resource-Based View, which emphasizes that external resources provided by government policies only create value when they are internalized into firm capabilities. Similarly, the Dynamic Capabilities Theory explains that SMEs must be able to adapt and utilize these resources to strengthen their competitiveness. This reinforces the idea that sustainability is driven more by internal capacity than by external intervention alone.

The findings also align with the Triple Bottom Line framework, where strong-performing firms are more capable of balancing economic, social, and environmental objectives. SMEs with better performance tend to have greater resources to invest in sustainable practices, while those with weaker performance focus more on short-term survival. Practically, the results imply that government support should go beyond financial assistance and focus on capacity building, mentoring, and digital transformation. In regions such as Lampung, where SMEs face structural limitations, policy effectiveness depends on how well support programs enhance firm capabilities. Therefore, an integrated approach that combines policy support with performance improvement is essential to achieve sustainable SME development.

CONCLUSIONS AND RECOMMENDATIONS

This study examined the role of government policy in SME sustainability in Lampung, Indonesia, with firm performance as a mediating variable. The results show that government policy significantly enhances SME performance but has a weaker direct effect on sustainability, with performance emerging as the strongest predictor and key mediator. Theoretically, the study extends the Resource-Based View (RBV) by demonstrating how external policy support must be internalized into firm-level capabilities to achieve sustainability, while practically it highlights the need for SMEs to transform government assistance into productivity, innovation, and profitability. For policymakers, the findings suggest that beyond financial support, integrated and context-specific interventions such as mentoring, sector-based training, simplified regulations, and digital transformation are crucial. Finally, the study is limited to Lampung Province, suggesting future research should adopt longitudinal or cross-regional

designs and include additional variables such as innovation, digital readiness, and leadership to better explain SME sustainability outcomes.

ADVANCED RESEARCH

This study is limited to a cross-sectional design within SMEs in Lampung Province, which restricts the ability to capture dynamic changes over time and limits generalizability to other regions. Additionally, the model focuses on firm performance as the main mediating variable, without incorporating other potential factors such as innovation capability, digital readiness, or leadership. Future research is recommended to adopt longitudinal or comparative cross-regional approaches to better understand the sustainability process over time. Further studies may also expand the model by integrating additional variables and exploring different sectors to provide a more comprehensive understanding of SME sustainability in emerging economies.

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