

Employee Performance Determinants and Their Impact on SME Firm Performance: A Multiple Regression Analysis Approach

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Abstract

This study examines the impact of employee performance determinants on Small and Medium Enterprise (SME) firm performance by integrating multiple organizational factors into a unified analytical framework. Drawing on existing literature, key determinants such as leadership style, training and skill development, work motivation, work environment, technology adoption, employee engagement, organizational culture, compensation and incentives, and employee experience were identified as critical drivers of performance. The study adopts a quantitative, descriptive, and causal research design, collecting primary data from 196 SME respondents in Kolkata using a structured questionnaire. Statistical analysis was conducted using SPSS, employing descriptive statistics, correlation, and multiple regression techniques. The findings reveal that the proposed model explains 72.2% of the variance in SME firm performance ($R^2 = 0.722$), indicating strong explanatory power. Among the determinants, training and skill development emerged as the most significant predictor, followed by work environment and organizational culture. In contrast, variables such as leadership style, motivation, technology adoption, and employee engagement showed no direct significant impact in the regression model. The study concludes that human capital development and supportive organizational conditions are the most influential drivers of SME performance. The findings provide valuable insights for policymakers and managers to prioritize training, workplace improvement, and cultural development to achieve sustainable growth and competitiveness in SMEs.

Keywords: SME Performance, Employee Performance Determinants, Training and Skill Development, Leadership Style, Work Environment, Organizational Culture, Employee Engagement, Technology Adoption, Work Motivation, Compensation and Incentives, Employee Experience.

1. Introduction

Small and Medium Enterprises (SMEs) play a crucial role in economic development, employment generation, and innovation across both emerging and developed economies. However, the performance of SMEs is largely influenced by internal organizational factors, particularly those related to employee performance determinants. Among these, leadership style has been widely recognized as a critical factor shaping organizational effectiveness, employee behavior, and decision-making processes (Kumar, 2018; Uzohue et al., 2016). In SMEs, where managerial control is often centralized, leadership significantly influences operational outcomes and employee productivity (Franco & Matos, 2015; Hossin et al., 2023).

Training and skill development are equally important in enhancing SME performance by improving employee competencies and managerial effectiveness (Yahya et al., 2012; Idris et al., 2023). Empirical evidence suggests that structured training programs enhance innovation capabilities and organizational competitiveness (Demirkan et al., 2022), while managerial training strengthens capability development and performance outcomes (Atiase et al., 2023). Work motivation also plays a vital role, as both intrinsic and extrinsic motivational factors contribute to improved employee performance and organizational success (Khairuddin et al., 2019; Kumar & Kalyani, 2011).

Furthermore, the work environment significantly affects employee efficiency and commitment. A supportive and well-structured workplace enhances productivity and reduces employee turnover (Zhenjing et al., 2022), while job characteristics and workplace spirituality contribute to sustainable SME performance (Iqbal et al., 2021). In addition, technological advancement and innovation capability are increasingly recognized as key drivers of SME competitiveness. Technology adoption not only improves operational efficiency but also mediates the relationship between innovation and firm performance (Jalil et al., 2022). However, SMEs often face challenges such as high implementation costs, lack of technical skills, and limited infrastructure, which hinder effective technology utilization (Shaikh et al., 2021).

Employee engagement and experience further contribute to organizational performance by fostering commitment, trust, and productivity. Studies indicate that effective engagement practices enhance competitiveness and business outcomes (Sangapan et al., 2021; Idua, 2021), while employee experience significantly influences job satisfaction and organizational commitment (Mohanraj et al., 2024). Additionally, performance management systems play a critical role in aligning employee efforts with organizational objectives (Siraj & Hågen, 2023). Organizational culture is another essential determinant that shapes SME performance by influencing behavior, strategy implementation, and performance measurement systems (Jardioui et al., 2020). A strong and innovative culture enhances operational efficiency and supports Total Quality Management practices, thereby improving overall firm performance (Eniola et al., 2019; Mazur & Zaborek, 2016).

Despite extensive research on individual factors, there is a need for a comprehensive framework that integrates multiple employee performance determinants to understand their combined impact on SME performance. The primary objectives of the study are to evaluate the collective impact of employee productivity determinants on SME firm performance, to identify the specific variables that contribute most significantly to organizational success, and to provide actionable recommendations for managers and policymakers to strengthen the SME ecosystem in Kolkata. Therefore, this study aims to examine how key determinants—such as leadership style, training and development, motivation, work environment, technology adoption, employee engagement, organizational culture, and employee experience—collectively influence SME performance, providing a holistic perspective for both researchers and practitioners.

2. Literature Review

Present study Has carried out a literature review survey of previously published research papers from national and international peer reviewed journals. In this investigation, SMEs are perforated as dependent verifiers and employers are indicators as dependent verifiers.

2.1. Leadership Style and SME Performance

. In recent years, many scholars have considered leadership style as an important factor that influences all aspects of an organization (Kumar, S. 2018). This is especially true in SMEs, where leadership depends largely on the work environment and employees' ability to perform (Franco & Matos, 2015). The study by Md. Manir Hossin **et al. (2023)** provides a comprehensive synthesis of leadership theories and their applicability in Small and Medium Enterprises (SMEs). The literature emphasizes that leadership is a critical determinant of organizational effectiveness, particularly in SMEs where managerial roles are often centralized. Investigation consistently identifies leadership style as a foundational driver of organizational success. Leadership style refers to the pattern of behavior a leader adopts in a specific situation to achieve organizational goals (Uzohue, 2016). It includes both visible and invisible actions used by leaders to guide, motivate, and influence employees to carry out plans.

2.2. Training & Skill Development and SME Performance

Human capital development is widely regarded as one of the most critical practices for enhancing SME productivity (Yahya, 2012). Yahya et al. (2012) training methods and SME performance study examined how different training methods affect the performance of small and medium enterprises (SMEs) using data from 3,521 cases. The study focused on how satisfied SMEs are with the training provided to employees and how this satisfaction influences business performance. To analyze the relationship, the researchers used statistical methods such as correlation and regression analysis. The findings provide new insights into how different training methods are linked to improvements in business performance.

Atiase V., Wang Y., and Mahmood S. (2023) explain that training plays an important role in improving the skills and effectiveness of managers in small and medium enterprises (SMEs). However, in Ghana, the quality of training provided to SME managers is often poor, which leads to weak managerial capabilities. The study examines how managerial training affects the performance of SME managers. It is based on the Human Capital Theory, which suggests that training improves skills and productivity. The researchers used PLS-SEM to analyze data collected from 506 SMEs using a stratified random sampling method. The results show that training accessibility and training content significantly improve managerial effectiveness. The training efficiency and training frequency do not have a significant impact. Additionally, the type of industry influences this relationship, while factors such as gender, age, and education of managers do not have a significant effect.

2.3. Work Motivation and SME Performance

Work motivation serves as a psychological catalyst for performance. Studies highlight that both intrinsic factors (job satisfaction and security) and extrinsic factors (competitive salaries) play vital roles. The study by Khairuddin, et al., (2019) examines how managerial training affects SME managers' effectiveness in Ghana. Using PLS-SEM and data from 506 SMEs, it finds that training accessibility and content significantly improve managerial performance, while training frequency and efficiency show no impact. Industry type influences outcomes, but demographic factors like age, gender, and education are insignificant (Kumar, D., & Kalyani, B. 2011). In many contexts, fair and transparent compensation acts as a primary motivator that aligns individual effort with organizational objectives, thereby increasing overall firm performance.

2.4. Work Environment and SME Performance

Zhenjing, et al., 2022) The quality of the workplace environment directly shapes employee efficiency and commitment. An "appealing climate" or "supportive atmosphere" encourages workers to integrate their skills and knowledge toward achieving firm success. Iqbal et al. (2021) examine how perceived job characteristics influence environmental sustainability in SMEs, with workplace spirituality as a mediator. Using SEM on data from 400 employees in India and Pakistan, the study finds that job characteristics positively affect spirituality, which in turn significantly enhances environmental sustainability outcomes. In the present study, perceived job characteristics have been evaluated to improve environmental sustainability in SMEs from Pakistan and India. Empirical evidence indicates that a positive work environment reduces turnover and enhances the achievement-striving ability of the workforce (Zhenjing, Et al., 2022).

2.5. Technology Adoption and SME Performance

Azlan Ali and Rashidah Kamarulzaman (2022) found that innovation capability significantly improves SME performance in Malaysia. Using SEM on 611 firms, the study shows technology adoption partially mediates this relationship. The research highlights the need for effective innovation models to achieve sustainable growth and competitive advantage in emerging markets. Shaikh et al. (2021) conducted a two-decade systematic review highlighting key barriers to SME technology adoption, including high costs, inadequate infrastructure, lack of technical skills, weak organizational and government support, and adoption resistance. The study emphasizes that these constraints significantly hinder SMEs' ability to leverage modern technologies effectively.

Digital transformation is increasingly viewed as a strategy for building resilience and competitive advantage in SMEs (Shaikh, et al., 2021). However, the effectiveness of technology is often moderated by the firm's organizational culture and its ability to manage the complexity of implementation.

2.6 Employee Engagement and SME Performance

Sangapan et al. (2021) show that employee engagement in SMEs depends on leadership, career development, and organizational trust. Supportive HR practices and clear communication enhance engagement, leading to higher productivity, commitment, and competitiveness. Trust and a positive work environment are essential for sustaining employee involvement and improving overall firm performance. (Ibua 2021), examined employee engagement and SME performance using a descriptive design and regression analysis. The study found low adoption of engagement practices despite awareness. Lack of training and poor HR practices reduced performance, while effective engagement and training improved productivity, competitiveness, and organizational outcomes. Na-Nan, et al., (2020), Employee engagement in SMEs in Thailand: the construction and validation of a scale to measure employees examines employee engagement in Thai SMEs by developing and validating a measurement scale. The study confirms reliability and validity, providing a structured tool to assess engagement levels and support HR strategies for improving employee performance and organizational effectiveness.

2.7. Organizational Culture and SME Performance

A positive organizational culture aligned with company strategy is a direct predictor of SME performance. Culture-based leadership and shared values help mobilize resources efficiently.

Research also indicates that culture can act as a mediator, enhancing the impact of other factors like technology adoption on long-term performance outcomes.

2.8. Compensation & Incentives and SME Performance

Jardioui et al. (2020) found that organizational culture significantly influences performance measurement systems in SMEs. Cultural dimensions such as flexibility–control and internal–external focus shape strategy formalization, monitoring, and performance evaluation, thereby determining the effectiveness and structure of performance management practices. Mazur and Zaborek (2016) found that an innovative organizational culture enhances SMEs’ use of open innovation sources and improves operational and financial performance. However, it does not directly increase product innovation, instead supporting efficiency, cooperation, and process innovations. Eniola et al. (2019) found that organizational culture significantly enhances Total Quality Management (TQM) implementation in SMEs. The study shows both TQM and culture positively influence firm performance, with organizational culture acting as a mediating factor that strengthens the TQM–performance relationship.

2.9. Employee Experience and SME Performance

Mohanraj et al. (2024) show that employee experience significantly influences job satisfaction, well-being, and organizational commitment. Cultural and physical factors are critical, while technology has limited impact. Employee engagement mediates performance, linking improved employee experience to better organizational outcomes, customer experience, and overall business performance. Siraj and Hågen (2023) found that an effective performance management system improves employee performance in Ethiopian SMEs. Their study highlights clear job roles, regular feedback, appraisals, training, and rewards as key practices that strengthen productivity, motivation, and overall work outcomes substantially for employees and organizations. Demirkan, Srinivasan, and Nand (2022) examined German SMEs and found that employee training significantly enhances innovation performance. The study highlights that continuous skill development improves knowledge capabilities, fosters creativity, and supports competitive advantage, emphasizing training as a strategic investment for sustaining SME innovation and growth.

Existing literature strongly supports that multiple organizational factors significantly enhance SME performance. Leadership style is consistently identified as a key driver influencing employee behavior, motivation, and organizational effectiveness (Kumar, 2018; Uzohue, 2016; Hossin et al., 2023). Effective leadership in SMEs, where authority is centralized, promotes coordination and goal achievement (Franco & Matos, 2015). Training and skill development are also critical, as they improve managerial capabilities, productivity, and innovation outcomes (Yahya et al., 2012; Atiase et al., 2023; Demirkan et al., 2022). Work motivation, supported by fair compensation and intrinsic satisfaction, enhances employee performance and aligns individual and organizational goals (Khairuddin et al., 2019). A supportive work environment further strengthens employee commitment and reduces turnover (Zhenjing et al., 2022; Iqbal et al., 2021). Technology adoption and innovation capabilities provide competitive advantage and sustainable growth (Ali & Kamarulzaman, 2022). Additionally, employee engagement, organizational culture, and performance management systems significantly improve productivity, operational efficiency, and long-term SME success (Sangapan et al., 2021; Eniola et al., 2019).

Despite positive outcomes, several challenges limit SME performance. Poor quality training and limited access reduce managerial effectiveness in some contexts (Atiase et al., 2023). Technology adoption is constrained by high costs, lack of skills, and weak infrastructure (Shaikh et al., 2021). Low implementation of employee engagement practices and inadequate HR systems also hinder productivity (Ibua, 2021). Additionally, some training dimensions, such as frequency and efficiency, show insignificant impact on performance. The hypothesis for regression testing can be structured as follows:

H1: Employee performance determinants have a significant positive effect on SME performance.

This hypothesis allows testing the combined and individual influence of key predictors on SME performance using multiple regression analysis.

3. Methodology

The research design for this investigation follows a quantitative, descriptive, and causal-predictive framework aimed at identifying the core determinants of SME firm performance. The study was geographically focused on the SME sector in Kolkata, utilizing a convenience sampling technique to gather primary data from the field. While the initial data collection effort reached 220 respondents, the final analytical sample was refined to 196 participants after the exclusion of 24 responses due to respondent negligence or incomplete performance, ensuring the integrity of the dataset. The data collection period is April 2024 to June 2024.

The data collection instrument consisted of a structured questionnaire, with items carefully adopted from established and peer-reviewed research journals to maintain high standards of reliability and validity. This instrument was designed to measure ten distinct variables: SME Firm Performance as the dependent variable, and nine independent predictors comprising Leadership Style, Training & Skill Development, Work Motivation, Work Environment, Technology Adoption, Employee Engagement, Organizational Culture, Compensation & Incentives, and Experience.

The relationship can be expressed by the following linear regression equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \epsilon$$

Where:

- Y: SME Firm Performance
- β_0 : The Constant (The intercept where all predictors are zero)
- X 1... 9: The predictors listed (Experience, Leadership Style, etc.)

Statistical processing was conducted using SPSS (Statistical Package for the Social Sciences). The analytical path involved descriptive statistics to evaluate mean and standard deviation for each construct, followed by Pearson Correlation to map the associations between variables. Finally, multiple regression analysis was employed to assess the overall model fitness, significance, and the individual predictive weight of each organizational factor on firm performance.

4. Analysis

4.1. Descriptive Analysis

The descriptive statistics table presents the central tendency and dispersion of key variables influencing SME firm performance based on 196 responses. Mean values indicate the overall perception level of respondents toward each construct, while standard deviation reflects the

variability in responses. Present study Has carried out a literature review survey of previously published research papers from national and international peer reviewed journals. In this investigation, SMEs are perforated as dependent verifiers and employers are indicators as dependent verifiers.

Table 1: Descriptive Statistics

Variables	Mean	Std. Deviation	N
SME Firm Performance	4.17	1.051	196
Leadership Style	3.89	.984	196
Training & Skill Development	4.11	1.061	196
Work Motivation	3.85	1.117	196
Work Environment	3.61	.935	196
Technology Adoption	3.64	1.065	196
Employee Engagement	3.92	1.083	196
Organizational Culture	3.78	.998	196
Compensation & Incentives	3.51	1.050	196
Experience	3.93	1.155	196

The variables include leadership style, training and skill development, motivation, work environment, technology adoption, employee engagement, organizational culture, compensation, and experience. This analysis provides a preliminary understanding of how these organizational factors are perceived and their potential contribution to SME performance.

Table 1, results show that SME firm performance has the highest mean (4.17), indicating strong perceived performance among firms. Training and skill development (4.11) and employee experience (3.93) also report high mean values, suggesting that human capital development plays a significant role in enhancing performance. Leadership style (3.89) and employee engagement (3.92) demonstrate moderately high influence, reflecting their importance in organizational effectiveness. Work motivation (3.85) and organizational culture (3.78) indicate a balanced contribution but with scope for improvement. Technology adoption (3.64) and work environment (3.61) show relatively moderate levels, suggesting partial integration and support. Compensation and incentives have the lowest mean (3.51), highlighting a potential area of concern for SMEs. Standard deviation values around 1 indicate moderate variability, implying diverse respondent opinions. Overall, the findings emphasize the critical role of training, leadership, and engagement in driving SME performance.

4.2. Regression Analysis

The model summary table 2 presents the results of a multiple regression analysis examining the impact of employee productivity determinants on SME firm performance. The predictors include leadership style, training and skill development, work motivation, work environment, technology adoption, employee engagement, organizational culture, compensation and incentives, and experience. The model evaluates how well these independent variables collectively explain variations in SME firm performance, using statistical indicators such as R, R², adjusted R², and ANOVA-based change statistics to assess model fitness and significance.

The regression Model Table 2 results indicate a strong relationship between the independent variables and SME firm performance, as reflected by a high correlation coefficient (R = 0.850).

The R^2 value of 0.722 suggests that 72.2% of the variation in SME firm performance is explained by the included predictors, demonstrating substantial explanatory power. The adjusted R^2 (0.709) confirms model stability after adjusting for the number of predictors, indicating minimal overfitting. The standard error of estimate (0.567) shows a relatively low prediction error, implying good model accuracy.

Table 2: Regression Model Analysis

Model Summary ^b								
R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
0.850 ^a	0.722	0.709	0.567	.722	53.699	9	186	.000
a. Predictors: (Constant), Experience, Compensation & Incentives, Leadership Style, Training & Skill Development, Work Motivation, Organizational Culture, Employee Engagement, Technology Adoption, Work Environment								
b. Dependent Variable: SME Firm Performance								

The F-change statistic (53.699) with a significance level of $p < 0.001$ indicates that the overall model is statistically significant, meaning the predictors jointly have a meaningful impact on SME performance. Therefore, factors such as training, leadership, motivation, and technology adoption significantly contribute to improving SME firm performance, supporting the robustness and reliability of the proposed research model.

4.3. Anova Analysis

The table presents descriptive statistics and ANOVA results examining the influence of employee productivity determinants on SME firm performance. The variables include leadership style, training and skill development, work motivation, work environment, technology adoption, employee engagement, organizational culture, compensation and incentives, and experience. Descriptive statistics summarize the central tendency and dispersion, while ANOVA evaluates the overall model significance. SME firm performance is treated as the dependent variable, with nine predictors tested simultaneously to determine their collective impact on organizational outcomes.

Table 3: Anova model Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	155.571	9	17.286	53.699	.000 ^b
Residual	59.873	186	.322		
Total	215.444	195			
a. Dependent Variable: SME Firm Performance					
b. Predictors: (Constant), Experience, Compensation & Incentives, Leadership Style, Training & Skill Development, Work Motivation, Organizational Culture, Employee Engagement, Technology Adoption, Work Environment					

The descriptive statistics indicate that SME firm performance has a high mean score (4.17), suggesting strong perceived performance among firms. Among predictors, training and skill development (4.11) and employee engagement (3.92) show relatively higher mean values,

indicating their importance in organizational functioning. Compensation and incentives (3.51) and work environment (3.61) show comparatively lower means, suggesting potential areas for improvement.

The ANOVA results confirm that the overall regression model is statistically significant ($F = 53.699$, $p < 0.001$). This indicates that the combined effect of all nine independent variables significantly explains variations in SME firm performance. The high F-value suggests strong explanatory power of the model. Additionally, the ratio of regression sum of squares (155.571) to total sum (215.444) implies that a substantial proportion of performance variation is accounted for by the predictors. Therefore, employee-related determinants collectively have a significant and positive impact on SME firm performance.

4.4. Coefficient Model Analysis

The table 4, presents the results of multiple regression analysis examining the impact of employee productivity determinants on SME firm performance. It includes unstandardized coefficients (B), standardized coefficients (Beta), t-values, significance levels, and confidence intervals. These statistics help assess the strength, direction, and significance of each independent variable. The model evaluates factors such as leadership style, training, motivation, work environment, and others to determine their contribution to explaining variations in SME firm performance.

Table 4: Coefficient Model Analysis

Coefficients							
Model	Unstandardized Coefficients		T Value	Sig.	95.0% Confidence Interval for B		
	B	Std. Error			Lower Bound	Upper Bound	
(Constant)	.338	.187	1.808	.072	-.031	.706	
Leadership Style	.005	.073	.074	.941	-.138	.149	
Training & Skill Development	.430	.067	6.386	.000	.297	.563	
Work Motivation	.117	.077	1.513	.132	-.035	.269	
Work Environment	.236	.101	2.343	.020	.037	.435	
Technology Adoption	-.046	.086	-.533	.595	-.214	.123	
Employee Engagement	.050	.081	.614	.540	-.110	.210	
Organizational Culture	.159	.077	2.081	.039	.008	.311	
Compensation & Incentives	.079	.083	.949	.344	-.085	.244	
Experience	-.043	.074	-.574	.567	-.190	.104	

a. Dependent Variable: SME Firm Performance

The regression results indicate that Training & Skill Development ($\beta = 0.434$, $p < 0.001$) has the strongest and most significant positive impact on SME firm performance, making it the key determinant. Work Environment ($\beta = 0.210$, $p = 0.020$) and Organizational Culture ($\beta = 0.151$, $p = 0.039$) also show significant positive effects, suggesting that supportive workplace conditions and a strong culture enhance performance outcomes.

However, variables such as Leadership Style, Work Motivation, Technology Adoption, Employee Engagement, Compensation & Incentives, and Experience are statistically insignificant ($p > 0.05$), indicating they do not have a meaningful direct effect in this model. Interestingly, Technology Adoption and Experience show negative but insignificant coefficients.

The findings emphasize that skill development, along with a conducive work environment and organizational culture, are critical drivers of SME performance, while other factors may require indirect or moderating analysis. In this study, Accept the H₁ hypothesis.

5. Discussion and Recommendations

The analysis reveals that Training & Skill Development is the most significant driver of SME performance ($\beta = 0.434$, $p < 0.001$), followed by Work Environment ($\beta = 0.210$, $p = 0.020$) and Organizational Culture ($\beta = 0.151$, $p = 0.039$). Collectively, the nine organizational factors explain **72.2%** of the variance in SME firm performance ($R^2 = 0.722$), with the overall model showing high statistical significance ($F = 53.699$, $p < 0.001$). Interestingly, while variables like Leadership Style and Work Motivation show strong Pearson correlations with performance, they do not remain statistically significant in the final regression model, suggesting their influence may be mediated by other factors. Furthermore, Compensation and Incentives recorded the lowest mean score (3.51), identifying it as a primary area of concern within the surveyed SMEs.

The results suggest that for SMEs, the "human capital" aspect—specifically the competency gained through training—is the lifeblood of competitive advantage. The high mean for SME Firm Performance (4.17) indicates a positive self-perception of success, which is heavily anchored in the quality of the work environment and culture. The lack of significance for Technology Adoption ($\beta = -0.046$) and Experience ($\beta = -0.043$) in the regression model is a notable departure from traditional assumptions; it implies that having technology or senior staff is insufficient unless paired with active skill development and a supportive culture. The discrepancy between the strong correlation of leadership and its insignificant regression coefficient suggests that leadership might be the *creator* of the environment and culture, rather than a direct driver of performance in isolation.

5.1. Discussion

Transformational, participatory, and supportive leadership styles are particularly effective in SMEs, as they enhance employee motivation, loyalty, and the firm's ability to meet its strategic goals. While some studies suggest that transactional leadership can improve short-term efficiency, a leader's ability to foster an innovative culture is more strongly linked to long-term profitability and competitive advantage.

Investigation outcome suggests that job-oriented training targeted at specific skill gaps yields significantly higher returns on investment than generalized training programs. In resource-constrained environments, effective training improves employee capabilities, leading to better operational efficiency and firm-level output (Idris, B., Saridakis, G., & Johnstone, S. 2023).

Employee engagement reflects the emotional and intellectual connection staff have with their work. Highly engaged employees contribute to increased customer loyalty, innovation, and business growth. Literature identifies leadership style and internal communication as the most dominant factors influencing engagement levels within the SME sector.

Well-defined compensation policies—including both material (wages/bonuses) and non-material (training/recognition) rewards—are essential for attracting and retaining talent in SMEs. Scientific and appropriate reward systems help build core competencies and ensure that employees are motivated to put in maximum effort toward business success.

Employee experience encompasses the total contribution of an individual's skills, knowledge, and tenure to the firm. Experienced employees drive innovation and provide the flexibility needed for SMEs to respond quickly to changing market conditions. While some research suggests that experience alone is not a guarantee of performance, its value is maximized when combined with continuous training and a supportive organizational context.

5.2. Recommendations

Recommendations for Policy Makers: Government bodies and industry regulators should prioritize the creation of subsidized vocational training programs and grants specifically targeted at SMEs to bolster their internal human capital development. Given that training is the strongest predictor of performance, national economic policies should incentivize "lifelong learning" within the private sector. Additionally, policymakers should establish standards for "healthy work environments" to encourage SMEs to improve workplace conditions, which this study proves is a significant driver of organizational success.

Managerial Recommendations: SME managers should pivot their focus from purely administrative oversight to becoming facilitators of learning and culture. Resources should be reallocated toward formal and informal training modules, as these yield the highest return on firm performance. Furthermore, management must address the low satisfaction regarding compensation and incentives to prevent potential talent drain, even if these factors didn't show a direct impact on performance in this specific model. Improving the physical and social work environment should be treated as a strategic investment rather than an overhead cost.

Theoretical Recommendations: This study contributes to the Resource-Based View (RBV) of the firm by highlighting that intangible assets—specifically skill development and culture—are the primary drivers of SME performance. The findings suggest a need to refine existing theories to account for why "traditional" drivers like technology and leadership style may lose direct predictive power when tested alongside human capital variables in an SME context. It proposes that the "Environment-Culture-Skill" triad forms the core operational framework for modern small-business success.

Scholarly Recommendations: Future researchers should investigate the mediating and moderating effects that were hinted at in this data. Specifically, scholars should examine whether Leadership Style and Motivation influence performance through the development of Organizational Culture and Work Environment, rather than directly. Longitudinal studies are also recommended to determine if the negative (though insignificant) trend of Technology Adoption and Experience changes as firms scale or as the digital landscape evolves. Finally, expanding the sample size beyond 196 responses could help clarify the impact of the currently insignificant variables.

6. Conclusion

This study provides a comprehensive examination of the impact of employee performance determinants on SME firm performance by integrating multiple organizational variables into a single analytical framework. The findings confirm that the proposed model has strong explanatory power, with 72.2% of the variation in SME performance explained by the selected predictors. This highlights the critical role of internal organizational factors in driving business success in SMEs.

Among all determinants, training and skill development emerged as the most significant contributor to SME performance. This finding reinforces the importance of human capital development as a strategic investment that enhances employee capabilities, innovation, and productivity. Additionally, work environment and organizational culture were found to have a significant positive impact, indicating that supportive workplace conditions and strong cultural alignment are essential for achieving higher performance levels.

Interestingly, factors such as leadership style, work motivation, technology adoption, employee engagement, compensation, and experience did not show a significant direct effect in the regression model. This suggests that their influence may be indirect or mediated through other variables such as organizational culture and work environment. It also indicates that simply adopting technology or relying on leadership without supporting systems may not yield desired performance outcomes in SMEs.

Finally, the study emphasizes that SMEs should prioritize skill development, foster a positive work environment, and build a strong organizational culture to enhance performance. The results contribute to the Resource-Based View by highlighting the importance of intangible assets in achieving competitive advantage. Future research should explore mediating and moderating relationships to better understand the indirect effects of non-significant variables.

Abbreviations

SME: Small Medium Enterprises

RBS: Resource-Based View

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Declaration

All authors confirm that this document was never submitted to any conference, seminar, national or international journal before. We're not declaring any conflicts of interest.

Ethic Approval

There no ethical issue applicability in this study.

Declaration of Artificial Intelligence (AI)

We have not used artificial intelligence for data collection, analysis and conceptual writing. AI Measures taken to improve clarity and readability of the English language for readers.

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