

**THE IMPACT OF HALAL AWARENESS AND HUMAN RESOURCE PRACTICES ON SME PERFORMANCE: THE MEDIATING ROLE OF INNOVATIVE WORK BEHAVIOR AND THE MODERATING EFFECT OF REGULATION****Hapsari Shinta Citra Puspita Dewi<sup>1,2\*</sup>, Rofiaty<sup>3</sup>, Risna Wijayanti<sup>3</sup>, Margono<sup>3</sup>**<sup>1.</sup> Doctoral Program in Management Science, Faculty of Economics and Business, Universitas Brawijaya, Malang, INDONESIA, Email id: shintacpd@student.ub.ac.id<sup>2.</sup> Study Program of Sports Management, Faculty of Sport and Health Science, Universitas Negeri Surabaya, Surabaya, INDONESIA<sup>3.</sup> Faculty of Economics and Business, Universitas Brawijaya, INDONESIA**Abstract**

This study aims to examine the influence of Halal Awareness and Human Resource Practices on SME Performance through the mediating role of Innovative Work Behavior and the moderating role of Regulation among halal-certified SMEs in East Java, Indonesia. This research employs a quantitative approach using a survey method involving 276 halal-certified SMEs operating in the food and beverage sector across Surabaya, Sidoarjo, and Gresik. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that Halal Awareness and Human Resource Practices positively and significantly affect both Innovative Work Behavior and SME Performance. Furthermore, Innovative Work Behavior significantly improves SME Performance and partially mediates the relationships between Halal Awareness, Human Resource Practices, and SME Performance. The study also confirms that Regulation positively moderates the relationships between Halal Awareness and SME Performance as well as between Human Resource Practices and SME Performance. These findings indicate that sustainable competitiveness within the halal industry is shaped by the integration of ethical awareness, strategic human resource management, innovation capability, and institutional support. The study contributes to the development of Resource-Based View and Strategic Human Resource Management literature by emphasizing the strategic role of halal-oriented organizational values and innovative behavior in improving SME sustainability and competitiveness within the halal economy ecosystem.

**Keywords:** Halal Awareness; Human Resource Practices; Innovative Work Behavior; Regulation; SME Performance; Halal SMEs; PLS-SEM.**Introduction**

Micro, Small, and Medium Enterprises (MSMEs) in the food and beverage (F&B) sector continue to play a strategic role in driving economic growth, particularly in developing countries. Following the COVID-19 pandemic, the sector has demonstrated significant resilience and recovery, supported by increasing consumer demand for sustainable, safe, and ethically produced food products. In this context, halal-certified products have become increasingly important, not only as a religious requirement but also as a symbol of quality assurance, hygiene, and consumer trust (Katuk et al., 2021).

The global halal industry has experienced substantial growth over the last decade. Demand for halal products is no longer limited to Muslim-majority countries but has also expanded into European and North American markets, where halal certification is increasingly perceived as an indicator of product quality and safety. Indonesia, as the country with the world's largest Muslim population, possesses considerable potential to become a global halal industry hub. Approximately 87% of Indonesia's 278 million population is Muslim, creating a vast domestic market for halal products and services (BPS, 2023). Furthermore, the Indonesian government has intensified efforts to strengthen the halal ecosystem through mandatory halal certification policies and the development of the national Islamic economy framework (KNEKS, 2023). Despite this enormous potential, the number of halal-certified MSMEs in Indonesia remains relatively low. Data from the Indonesian Council of Ulama's Assessment Institute for Foods, Drugs, and Cosmetics (LPPOM MUI) indicate that only around one million out of approximately 64 million MSMEs have obtained halal certification, with the F&B sector still dominating the certification gap. This condition suggests that many MSME owners still perceive halal certification as costly, bureaucratic, and administratively burdensome rather than as a strategic business investment. Consequently, halal awareness among MSME actors has not been fully transformed into improved organizational performance and competitive advantage.

From a strategic management perspective, halal awareness can be interpreted as an intangible organizational resource capable of enhancing business performance. Firms with strong halal awareness tend to maintain higher standards of product quality, hygiene, and operational consistency, thereby strengthening consumer trust and market reputation. Previous studies have shown that organizations emphasizing ethical values and product quality generally achieve better sustainability and long-term competitiveness (Boohene et al., 2020; Fan et al., 2021). However, the implementation of halal principles alone is insufficient to ensure superior MSME performance. Internal organizational capabilities, particularly human resource management practices, remain essential determinants of innovation, adaptability, and productivity (Domi et al., 2020; Meekaewkunchorn et al., 2021).

In this regard, Strategic Human Resource Management (SHRM) based on the Ability–Motivation–Opportunity (AMO) framework becomes highly relevant for halal-certified MSMEs. Effective HR practices contribute to improving employee competence, motivation, and participation, which subsequently foster innovative work behavior (IWB). Prior studies have emphasized that organizations implementing strategic HR practices are more likely to encourage employee creativity, proactive problem-solving, and innovation-oriented behavior (Nor et al., 2021; Gemeda & Lee, 2020). In the context of halal-certified MSMEs, innovative work behavior is particularly important because it enables firms to integrate halal values into innovative products, services, and operational processes that enhance competitiveness in dynamic markets. Furthermore, the relationship between halal awareness, HR practices, and MSME performance cannot be separated from the role of government regulation. Regulatory frameworks related to halal certification, labor policies, and MSME development may either strengthen or weaken organizational efforts to improve performance. Supportive regulations such as simplified certification procedures, training programs, and innovation incentives can enhance the effectiveness of halal awareness and HR practices. Conversely, excessive administrative complexity may discourage MSMEs from fully adopting strategic management practices (Azizi et al., 2021; Ferreira et al., 2020). Therefore, regulation is expected to function as a moderating variable influencing the relationship between organizational resources and MSME performance.

The theoretical foundation of this study is grounded in the Resource-Based View (RBV), which argues that sustainable competitive advantage originates from valuable, rare, inimitable, and non-substitutable internal resources. In line with RBV, Strategic Human Resource Management emphasizes the strategic role of human capital in organizational success (Al-Ayed, 2019; Hamadamin & Atan, 2019). Within this framework, halal awareness and HR practices are conceptualized as strategic organizational resources capable of fostering innovative work behavior and improving MSME performance. Innovative work behavior acts as the mediating mechanism through which halal awareness and HR practices are transformed into organizational outcomes, while regulation serves as an external contextual factor that moderates these relationships.

Although previous studies have extensively examined MSME performance from perspectives such as marketing, finance, and digital transformation, limited attention has been given to the integration of halal awareness, HR practices, innovative work behavior, and regulation within a single conceptual framework. Existing research predominantly focuses on halal awareness from the consumer perspective rather than from the viewpoint of business actors themselves. Moreover, few studies have investigated innovative work behavior as a mediating variable linking halal awareness and HR practices to MSME performance, particularly within halal-certified MSMEs in Indonesia.

Accordingly, this study seeks to address these gaps by examining the impact of halal awareness and human resource practices on MSME performance through the mediating role of innovative work behavior and the moderating effect of regulation among halal-certified F&B MSMEs in East Java, Indonesia. This study contributes theoretically by integrating RBV, SHRM, and halal ecosystem perspectives into a comprehensive framework, while practically providing insights for policymakers and MSME stakeholders in developing sustainable and competitive halal businesses.

**Materials and Methods**

**Research Design:** This study employed a quantitative research approach grounded in the positivist paradigm to examine the causal relationships among Halal Awareness, Human Resource (HR) Practices, Innovative Work Behavior (IWB), Regulation, and SME Performance. A quantitative approach was considered appropriate because it allows objective measurement and empirical testing of relationships among variables through statistical analysis. The study adopted a cross-sectional survey design using structured questionnaires distributed to halal-certified food and beverage (F&B) SMEs in East Java, Indonesia. The conceptual framework examined the direct influence of Halal Awareness and HR Practices on SME Performance, with Innovative Work Behavior functioning as a mediating variable and Regulation serving as a moderating variable.

**Research Location and Population:** The research was conducted in East Java Province, Indonesia, particularly in Surabaya, Gresik, and Sidoarjo, which are recognized as major centers for halal-based F&B SMEs. These areas were selected because they possess strong economic potential and active SME ecosystems

supported by government development programs. The population of this study consisted of halal-certified SMEs operating in the food and beverage sector and registered under the East Java Food and Beverage Producers Association (APMMJ), an association supervised by the East Java Office of Cooperatives and SMEs. APMMJ was selected because its members actively participate in halal certification programs, managerial development, and digital transformation initiatives, making them highly relevant to the objectives of this research. Based on official records from the East Java Office of Cooperatives and SMEs, the total population consisted of 586 halal-certified F&B SMEs distributed across Surabaya, Gresik, and Sidoarjo.

**Sampling Technique and Sample Size:** This study used a non-probability sampling method with purposive sampling techniques. Respondents were selected based on several criteria, namely SMEs operating in the F&B sector, possessing halal certification or currently undergoing halal certification processes, implementing HR management practices related to employee ability, motivation, and opportunity, and participating in government or private business development programs. The sample size was determined using the Slovin formula with a population size of 586 SMEs and a margin of error of 3%, resulting in a minimum sample requirement of 384 respondents. To ensure proportional representation, the sample distribution was allocated according to the number of SMEs in each region, consisting of 180 respondents from Surabaya, 77 respondents from Gresik, and 127 respondents from Sidoarjo.

**Measurement of Variables:** This study involved five latent variables: Halal Awareness (X1), Human Resource Practices (X2), Innovative Work Behavior (Z1), Regulation (Z2), and SME Performance (Y). All constructs were measured using indicators adapted from previous studies and modified to fit the context of halal-certified F&B SMEs in East Java. Each measurement item was assessed using a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Halal Awareness was measured through indicators related to understanding halal concepts, knowledge of halal regulations, implementation of halal production practices, and commitment to halal certification, adapted from Oemar et al. (2023). Human Resource Practices were assessed using the Ability–Motivation–Opportunity (AMO) framework, which included ability-enhancing, motivation-enhancing, and opportunity-enhancing practices adapted from Demo et al. (2012), Prieto and Pérez-Santana (2014). Innovative Work Behavior was measured using indicators related to idea generation, idea promotion, and idea realization adapted from Janssen (2000). Meanwhile, the Regulation variable assessed respondents’ perceptions regarding the clarity of halal regulations, availability of facilities and support, and enforcement of regulations, adapted from Graafland and Bovenberg (2020) and Widodo et al. (2024). SME Performance was measured through indicators of profitability, sales growth, competitiveness, customer satisfaction, and business reputation adapted from Alves and Lourenço (2022), Damayanti et al. (2023), Kaplan and Norton (2005).

**Instrument Validity and Reliability:** The research instrument was evaluated using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to assess both validity and reliability. Convergent validity was examined through factor loading values, Average Variance Extracted (AVE), and t-statistics. Indicators were considered valid when the loading factor exceeded 0.70 and AVE values were greater than 0.50. Discriminant validity was evaluated using the Fornell–Larcker criterion and cross-loading analysis to ensure that each construct was empirically distinct from other constructs. Reliability testing was conducted using Cronbach’s Alpha and Composite Reliability (CR). Constructs were considered reliable when Cronbach’s Alpha and CR values exceeded 0.70. The findings demonstrated that all constructs satisfied the required validity and reliability thresholds, indicating that the measurement model was appropriate for further structural analysis.

**Data Analysis Technique:** Data analysis was conducted using SmartPLS 4.0 software. The analysis consisted of descriptive and inferential statistical procedures. Descriptive statistics were used to present respondents’ demographic profiles, business characteristics, halal certification status, and geographical distribution. Inferential analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the proposed hypotheses. SEM-PLS was selected because it is suitable for analyzing complex structural relationships involving mediation and moderation effects without requiring multivariate normality assumptions. The analytical procedure included evaluation of the measurement model (outer model), structural model (inner model), mediation effects, moderation effects, and model goodness-of-fit. The structural model was assessed using path coefficients, t-statistics, p-values, R-square values, and predictive relevance (Q-square). Model fit was evaluated using the Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI), where SRMR values below 0.08 and NFI values approaching 1 indicate acceptable model fit. Hypothesis testing was conducted using bootstrapping procedures with 5,000 resamples. Direct effects were considered significant when the t-statistic exceeded 1.96 or the p-value was below 0.05. Indirect effects were tested to evaluate the mediating role of Innovative Work Behavior through bootstrapped confidence intervals and Variance Accounted For (VAF) analysis. In addition, moderation analysis was performed using the product indicator approach in PLS-SEM to determine whether Regulation strengthened or weakened the relationship between the independent and dependent variables.

**Results**

**Descriptive Analysis:** The descriptive analysis revealed that the respondents generally provided positive evaluations toward all research variables. Innovative Work Behavior (Z1) and Regulation (Z2) obtained the highest average scores and were categorized as “good,” while Halal Awareness (X1), Human Resource Practices (X2), and SME Performance (Y) were categorized as “fairly good.” These findings indicate that halal-certified SMEs in East Java have relatively strong innovative behavior and regulatory perceptions, although managerial and organizational performance still require improvement.

**Table 1.** Descriptive Analysis of Research Variables

Variable	Mean Score	Category
Halal Awareness (X1)	3.306	Fairly Good
Human Resource Practices (X2)	3.007	Fairly Good
Innovative Work Behavior (Z1)	3.446	Good
Regulation (Z2)	3.476	Good
SME Performance (Y)	3.229	Fairly Good

**Structural Model Analysis:** The structural model analysis demonstrated that all hypothesized relationships were statistically significant. Halal Awareness significantly influenced SME Performance with a path coefficient of 0.167 and a t-statistic of 3.709. Halal Awareness also positively influenced Innovative Work Behavior with a coefficient of 0.240 and a t-statistic of 4.907. Furthermore, Human Resource Practices significantly affected SME Performance ( $\beta = 0.128$ ;  $t = 2.633$ ) and Innovative Work Behavior ( $\beta = 0.288$ ;  $t = 6.027$ ). Innovative Work Behavior had the strongest direct influence on SME Performance, with a coefficient of 0.339 and a t-statistic of 7.728. The mediation analysis confirmed that Innovative Work Behavior partially mediated the relationship between Human Resource Practices and SME Performance, with an indirect effect coefficient of 0.098 and a t-statistic of 4.542. In addition, Regulation significantly moderated the relationship between Halal Awareness and SME Performance ( $\beta = 0.206$ ;  $t = 4.296$ ) as well as the relationship between Human Resource Practices and SME Performance ( $\beta = 0.110$ ;  $t = 2.631$ ).

**Table 2.** Hypothesis Testing Results

Hypothesis	Relationship	Path Coefficient	t-Statistic	p-Value	Result
H1	Halal Awareness → SME Performance	0.167	3.709	0.000	Supported
H2	Halal Awareness → Innovative Work Behavior	0.240	4.907	0.000	Supported
H3	HR Practices → SME Performance	0.128	2.633	0.008	Supported
H4	HR Practices → Innovative Work Behavior	0.288	6.027	0.000	Supported
H5	Innovative Work Behavior → SME Performance	0.339	7.728	0.000	Supported
H6	IWB mediates HR Practices → SME Performance	0.098	4.542	0.000	Supported
H7	Regulation moderates Halal Awareness → SME Performance	0.206	4.296	0.000	Supported
H8	Regulation moderates HR Practices → SME Performance	0.110	2.631	0.002	Supported

**Coefficient of Determination (R<sup>2</sup>)** The coefficient of determination analysis indicated that the explanatory power of the model improved after including the moderating variable. The R<sup>2</sup> value for SME Performance increased from 0.293 in the non-moderation model to 0.394 in the moderation model, indicating that Regulation strengthened the contribution of Halal Awareness and Human Resource Practices in explaining SME Performance. Meanwhile, the R<sup>2</sup> value for Innovative Work Behavior was 0.161, indicating that Halal Awareness and HR Practices moderately explained innovative employee behavior.

**Table 3.** Coefficient of Determination (R<sup>2</sup>)

Endogenous Variable	R <sup>2</sup>	Interpretation
SME Performance (without moderation)	0.293	Weak
SME Performance (with moderation)	0.394	Weak–Moderate
Innovative Work Behavior	0.161	Weak

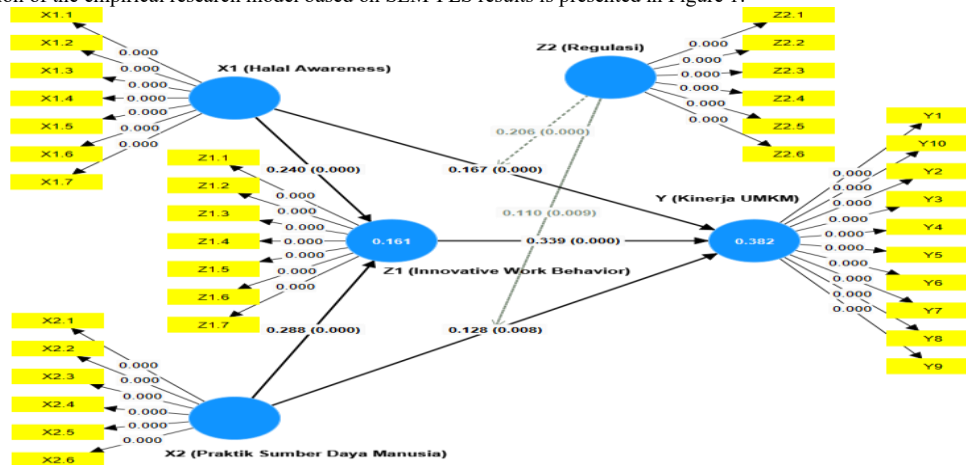
**Model Fit Evaluation:** The model fit evaluation demonstrated satisfactory results. The SRMR value was 0.036, which was below the threshold of 0.08, while the NFI value exceeded 0.90 for both the saturated and moderation models. These findings indicate that the proposed SEM-PLS model achieved a good level of fit and was appropriate for further hypothesis testing.

**Table 4.** Model Fit Evaluation

Indicator	Value	Threshold	Interpretation
SRMR	0.036	< 0.08	Good Fit
NFI	0.907	> 0.90	Good Fit

**Empirical Research Model**

The following illustration of the empirical research model based on SEM-PLS results is presented in Figure 1.



**Figure 1.** Empirical Model Testing

**Discussion**

**The Effect of Halal Awareness on SME Performance:** The findings confirm that Halal Awareness has a positive and significant effect on SME Performance, indicating that stronger awareness of halal principles among business actors contributes to higher organizational performance. This finding supports the Resource-Based View perspective, which explains that intangible organizational resources can function as strategic assets capable of generating sustainable competitive advantage when they are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In the context of halal-certified SMEs, halal awareness functions not merely as religious compliance, but also as a strategic organizational capability that strengthens consumer trust, market credibility, and business legitimacy within the halal industry ecosystem (Alsharif et al., 2021). The positive relationship between halal awareness and performance demonstrates that ethical values embedded within organizational activities are capable of improving both financial and non-financial outcomes. SMEs with strong halal awareness tend to implement stricter quality control systems, maintain product integrity, and ensure transparency throughout the production process, thereby enhancing customer satisfaction and customer loyalty (Ahmad & Daud, 2020). This condition supports previous findings suggesting that halal-oriented business practices significantly contribute to operational sustainability, organizational resilience, and market competitiveness, particularly within Muslim-majority economies where halal credibility represents an important strategic asset (Razak et al., 2022).

From the perspective of organizational capability, halal awareness encourages SMEs to develop adaptive operational mechanisms to maintain halal assurance standards. The implementation of halal principles in raw material selection, hygienic production processes, and supply chain management reflects the transformation of ethical awareness into operational excellence and organizational capability enhancement (Rahman et al., 2021). This finding reinforces the argument that organizational values can become productive strategic resources when integrated into daily business activities (Barney, 1991).

The empirical evidence also reveals that halal awareness acts as a mechanism for strengthening consumer trust, particularly within highly competitive markets such as Surabaya, Sidoarjo, and Gresik. In these regions, halal labels are perceived not only as symbols of religious compliance but also as indicators of product quality and safety (Widodo et al., 2024). Consequently, SMEs with stronger halal awareness possess greater opportunities to improve market acceptance and maintain customer loyalty. Another important finding indicates that most respondents had not yet obtained complete business legality despite possessing high awareness regarding the importance of halal values. This condition suggests that moral commitment toward halal principles may function as an internal control mechanism that compensates for limited formal institutional structures and administrative constraints among SMEs (Oemar et al., 2023). The dominance of young entrepreneurs aged 25–34 years also indicates higher organizational agility in integrating halal awareness into business strategies and operational adaptation.

This study proposes the concept of Inherent Halal Quality, where halal awareness evolves into an internal quality assurance mechanism within micro-scale organizations. Within limited organizational structures, halal awareness becomes a low-cost strategic instrument for enhancing reputation and customer trust without requiring complex bureaucratic systems. Therefore, halal awareness should be viewed not only as religious orientation but also as a strategic capability that strengthens SME competitiveness in the halal economy ecosystem (Razak et al., 2022).

**The Effect of Halal Awareness on Innovative Work Behavior:** The results demonstrate that Halal Awareness positively influences Innovative Work Behavior, indicating that greater understanding of halal principles stimulates creative and proactive work behavior among SME actors. This finding supports the Resource-Based View perspective, which positions value-based organizational awareness as an intangible resource capable of driving innovation capacity (Barney, 1991). Halal awareness encourages SMEs to continuously explore alternative methods, improve production processes, and adapt products to halal assurance standards. This process reflects the emergence of innovation driven not only by economic motivation but also by ethical and religious commitment embedded within organizational values (Fitriani & Hidayat, 2024). SMEs with stronger halal orientation tend to exhibit greater willingness to experiment with new products, packaging designs, and hygienic operational systems to satisfy changing consumer demands and strengthen market competitiveness within the halal industry ecosystem. The relationship between halal awareness and innovative behavior can also be explained through the mechanism of problem-solving adaptation. The complexity of halal compliance requirements encourages entrepreneurs to generate ideas, promote operational improvements, and implement creative solutions in business activities (Anak Agung Ketut et al., 2025). This finding confirms that ethical awareness can stimulate innovation by creating organizational pressure for continuous improvement. In highly competitive metropolitan areas such as Surabaya and Sidoarjo, halal awareness becomes an important driver for innovation because consumers increasingly demand products that combine quality, hygiene, and halal assurance simultaneously (Widodo et al., 2024). Consequently, SMEs are required to innovate continuously to maintain customer trust and market relevance.

The dominance of young entrepreneurs within the sample further strengthens the relationship between halal awareness and innovative behavior. Younger business owners generally demonstrate higher adaptability toward digital transformation, product experimentation, and operational flexibility due to their greater openness to change and innovation-oriented decision making (Neneh, 2023). This demographic condition increases the likelihood that halal awareness is translated into innovative work practices and proactive organizational adaptation within the halal business ecosystem.

This study introduces the concept of Value-Driven Innovation, which explains that halal awareness can become a source of innovation capability within micro-scale SMEs. Instead of limiting creativity, halal standards stimulate entrepreneurs to identify new solutions that simultaneously satisfy market expectations and religious values. Therefore, halal awareness functions not only as a compliance mechanism but also as a catalyst for organizational innovation.

**The Effect of Human Resource Practices on SME Performance:** The findings confirm that Human Resource Practices significantly influence SME Performance, indicating that effective people management contributes positively to organizational sustainability, operational effectiveness, and productivity. This result supports the integration of Resource-Based View and Strategic Human Resource Management perspectives, which emphasize human resources as strategic assets capable

of generating sustainable competitive advantage when managed effectively (Syed & Kramar, 2017). Furthermore, effective HR practices strengthen organizational capability and improve SME performance through employee involvement, competency development, and participatory management systems (Bello-Pintado & Garcés-Galdeano, 2019).

The positive impact of HR practices on performance can be explained through the Ability–Motivation–Opportunity (AMO) framework. SMEs that provide employee participation opportunities, motivation systems, and competency development mechanisms tend to achieve higher operational effectiveness, stronger organizational commitment, and better performance outcomes (Appelbaum et al., 2000). This finding confirms that employee empowerment and participatory management contribute directly to business performance improvement by strengthening employee capability and organizational engagement (Jiang et al., 2012).

Within micro-scale SMEs, informal and participatory HR management systems appear to be more effective than rigid administrative structures. The majority of respondents operated businesses with fewer than three employees, allowing closer interpersonal relationships and faster decision-making processes. Such organizational flexibility facilitates knowledge sharing and collaborative problem solving, which ultimately improve operational performance (Li et al., 2022).

The findings also indicate that opportunity-based HR practices represent the strongest dimension influencing organizational performance. Employee involvement in operational decisions creates stronger psychological ownership and increases organizational responsiveness toward market dynamics (Prieto & Pérez-Santana, 2014). This result reinforces the argument that participatory management systems are highly relevant for micro-enterprise environments.

This study proposes the concept of Micro-Structural Empowerment, which explains how limited organizational structures may become strategic advantages for SMEs. Rather than creating operational rigidity, small organizational size enables agile coordination, rapid communication, and stronger employee engagement. Consequently, HR practices become strategic instruments for maintaining competitiveness within highly dynamic halal markets.

#### **The Effect of Human Resource Practices on Innovative Work Behavior**

The results indicate that Human Resource Practices positively affect Innovative Work Behavior, confirming that organizational support systems significantly encourage employee creativity, proactive behavior, and innovation capability. This finding is consistent with Strategic Human Resource Management theory, which argues that HR systems play a critical role in developing innovation-oriented organizational cultures through employee empowerment, training, and participatory decision-making mechanisms (Prieto & Pérez-Santana, 2014). The implementation of participatory HR practices creates opportunities for employees to explore ideas, propose improvements, and implement operational innovations. Through the AMO framework, HR practices enhance employee capability, motivation, and opportunity simultaneously, thereby stimulating innovative work behavior (Appelbaum et al., 2000). Training and empowerment mechanisms also strengthen employees' confidence in experimenting with new work methods and production systems. This finding aligns with previous studies demonstrating that HR practices focused on employee involvement significantly enhance innovative performance within SMEs (Prieto & Pérez-Santana, 2014). The metropolitan economic environment of Surabaya, Sidoarjo, and Gresik further intensifies the need for innovation-oriented HR systems. SMEs operating in highly competitive urban markets require flexible and adaptive management practices to maintain operational relevance, organizational responsiveness, and customer satisfaction (Tseng & Chiu, 2020). This study introduces the concept of Agile Human Management in Micro-Context, which explains that flexible and trust-based HR systems within micro-scale organizations can become important catalysts for innovation. Limited organizational hierarchy enables rapid implementation of ideas, faster decision-making processes, and stronger collaborative interaction among employees, thereby strengthening innovative work behavior and organizational adaptability (Felicio et al., 2014).

#### **Research Implications**

This study contributes theoretically by integrating Resource-Based View, Strategic Human Resource Management, and Institutional Theory into a comprehensive framework explaining SME performance within the halal industry context. The findings confirm that halal awareness and HR practices function as strategic intangible resources capable of generating competitive advantage through innovative work behavior (Barney, 1991). The study also extends innovation literature by demonstrating that Innovative Work Behavior acts as a transformational mechanism linking ethical orientation and human resource systems to organizational performance outcomes. Innovative behavior enables employees to convert organizational values and managerial support into practical improvements, operational adaptation, and competitive business solutions (De Jong & Den Hartog, 2010). This finding suggests that innovation should not merely be understood as technological capability but also as behavioral adaptation emerging from organizational values and human resource management systems. Furthermore, the moderating role of regulation expands Institutional Theory by positioning government policy not as a restrictive mechanism but as a strategic enabler that strengthens the effectiveness of internal organizational capabilities (Graafland & Bovenberg, 2020). This study therefore proposes that sustainable competitive advantage within halal SMEs emerges from the interaction between internal ethical resources, innovative capability, and institutional support.

For SME owners, this study emphasizes the importance of transforming halal awareness into strategic business orientation rather than treating halal certification solely as administrative compliance. SMEs should integrate halal assurance systems into product innovation, operational efficiency, and customer relationship strategies to strengthen long-term competitiveness (Widodo et al., 2024). The findings also suggest that participatory HR practices are essential for strengthening innovative organizational cultures. SME managers should create flexible work environments that encourage employee involvement, experimentation, and collaborative problem solving to improve organizational adaptability and performance (Prieto & Pérez-Santana, 2014). For policymakers, the study highlights the importance of supportive regulatory ecosystems that facilitate halal certification access, training programs, and innovation support for SMEs. Government intervention should prioritize capacity building and institutional facilitation rather than merely emphasizing compliance enforcement (Hasibuan et al., 2026).

#### **Research Limitations**

This study possesses several limitations that should be acknowledged. First, the research focuses exclusively on SMEs located in East Java, which may limit the generalizability of findings across regions with different socio-cultural and economic characteristics. Variations in religiosity, institutional support, and market structure may produce different patterns of relationships among the studied variables. Second, the study employs a cross-sectional research design, preventing the observation of long-term behavioral and organizational changes. The transformation of halal awareness and HR practices into innovation and performance outcomes may require longitudinal analysis to capture causal dynamics more comprehensively. Third, the use of self-reported questionnaires may introduce social desirability bias, particularly regarding sensitive issues such as halal compliance and organizational performance. Future studies are encouraged to combine perceptual data with objective performance indicators and qualitative interviews to improve data validity. Fourth, the research model focuses primarily on halal awareness, HR practices, innovative work behavior, and regulation, while excluding other potentially important determinants such as digital literacy, market orientation, financial capability, and technological adoption. Future research should incorporate broader organizational and environmental variables to enhance explanatory power. Finally, this study treats SMEs as a homogeneous category without differentiating among industrial sub-sectors. The impact of halal awareness and regulatory systems may vary significantly across industries such as food, cosmetics, fashion, and services. Future studies are therefore recommended to conduct comparative analyses across different halal industry sectors.

#### **Conclusion**

This study examines the influence of Halal Awareness and Human Resource Practices on SME Performance through the mediating role of Innovative Work Behavior and the moderating role of Regulation among halal-certified SMEs in East Java. The findings demonstrate that Halal Awareness and Human Resource Practices positively and significantly affect both Innovative Work Behavior and SME Performance. Furthermore, Innovative Work Behavior significantly enhances SME Performance and partially mediates the relationships between Halal Awareness, Human Resource Practices, and organizational performance. The study also confirms that Regulation strengthens the effects of Halal Awareness and Human Resource Practices on SME Performance, indicating that sustainable competitiveness in the halal industry is shaped by the integration of ethical awareness, strategic human resource management, innovation capability, and institutional support. These findings contribute to the development of Resource-Based View and Strategic Human Resource Management literature by emphasizing that halal-oriented organizational values and innovation behavior represent important strategic resources for SME sustainability and competitive advantage.

Future research is recommended to expand the geographical scope beyond East Java and compare various halal industry sectors to improve the generalizability of findings. Longitudinal studies are also necessary to examine the long-term influence of halal awareness, human resource practices, and innovation behavior on SME sustainability. In addition, future studies should integrate variables such as digital transformation, entrepreneurial orientation, technological capability, and market orientation to strengthen the explanatory power of the research model. The use of qualitative or mixed-method approaches is also encouraged to provide deeper insights into how halal values are transformed into organizational innovation and competitive advantage within the evolving halal economy ecosystem.

**References**

- Ahmad, N. L., & Daud, S. (2020). Halal food awareness and customer purchase intention. *International Journal of Academic Research in Business and Social Sciences*, 10(9), 807–818. <https://doi.org/10.6007/IJARBS/v10-i9/7778>.
- Al-Ayed, S. I. (2019). The impact of strategic human resource management on organizational resilience: An empirical study on hospitals. *Business: Theory and Practice*, 20, 179–186. <https://doi.org/10.3846/BTP.2019.17>.
- Alsharif, A. H., Salleh, N. Z. M., Baharun, R., & Effandi, Y. M. (2021). Consumer behaviour toward halal products: Evidence from the halal food sector. *Sustainability*, 13(10), 5532. <https://doi.org/10.3390/su13105532>.
- Alves, I., & Lourenço, S. M. (2022). The use of non-financial performance measures for managerial compensation: evidence from SMEs. In *Journal of Management Control* (Vol. 33, Issue 2). Springer Berlin Heidelberg. <https://doi.org/10.1007/s00187-022-00337-8>.
- Anak Agung Ketut, S., I Made Hedy, W., I Ketut, Y. A., & I Putu Bagus, S. (2025). The Transformative Impact of Innovative Work Behavior on Entrepreneurial Orientation and Organizational Performance. *International Journal of Science, Technology & Management*, 6(2), 312–326. <https://doi.org/10.46729/ijstm.v6i2.1278>.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Ithaca, NY: Cornell University Press.
- Azizi, M. R., Atlasi, R., Ziapour, A., Abbas, J., & Naemi, R. (2021). Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. *Heliyon*, 7(6), e07233. <https://doi.org/10.1016/j.heliyon.2021.e07233>.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>.
- Bello-Pintado, A., & Garcés-Galdeano, L. (2019). Human resource management practices and performance in SMEs: Empirical evidence for success factors. *Administrative Sciences*, 9(3), 55. <https://doi.org/10.3390/admsci9030055>.
- Boohene, R., Gyimah, R. A., & Osei, M. B. (2020). Social capital and SME performance: the moderating role of emotional intelligence. *Journal of Entrepreneurship in Emerging Economies*, 12(1), 79–99. <https://doi.org/10.1108/JEEE-10-2018-0103>.
- Central Statistics Agency (BPS). (2023). *Indonesian Statistics 2023*. Jakarta: BPS RI.
- Damayanti, R. M., Utami, E. Y., Pramesti, D., Yuminata, D., Pratama, R. A., & Pratama, V. Y. (2023). The implementation of a balanced scorecard perspective to SMEs performance. *Sebelas Maret Business Review*, 8(2), 149. <https://doi.org/10.20961/smbr.v8i2.81155>.
- De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19(1), 23–36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>.
- Demo, G., Neiva, E. R., Nunes, I., & Rozzett, K. (2012). Human resources management policies and practices scale (HRMPPS): exploratory and confirmatory factor analysis. *BAR – Brazilian Administration Review*, 9(4), 395–420. <https://doi.org/10.1590/s1807-76922012005000006>.
- Domí, S., Capelleras, J. L., & Musabelliu, B. (2020). Customer orientation and SME performance in Albania: A case study of the mediating role of innovativeness and innovation behavior. *Journal of Vacation Marketing*, 26(1), 130–146. <https://doi.org/10.1177/1356766719867374>.
- Fan, M., Qalati, S. A., Khan, M. A. S., Shah, S. M. M., Ramzan, M., & Khan, R. S. (2021). Effects of entrepreneurial orientation on social media adoption and SME performance: The moderating role of innovation capabilities. *PLoS ONE*, 16(4 April 2021), 1–24. <https://doi.org/10.1371/journal.pone.0247320>.
- Felício, J. A., Couto, E., & Caiado, J. (2014). Human capital, social capital and organizational performance. *Management Decision*, 52(2), 350–364. <https://doi.org/10.1108/MD-04-2013-0260>.
- Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92–93(July), 0–1. <https://doi.org/10.1016/j.technovation.2018.11.004>.
- Fitriani, N., & Hidayat, A. (2024). Halal innovation and business sustainability among SMEs in the Indonesian halal industry. *Journal of Islamic Marketing*. Advance online publication. <https://doi.org/10.1108/JIMA-09-2023-0301>.
- Gemeda, H. K., & Lee, J. (2020). Leadership styles, work engagement and outcomes among information and communications technology professionals: A cross-national study. *Heliyon*, 6(4), e03699. <https://doi.org/10.1016/j.heliyon.2020.e03699>.
- Graafland, J., & Bovenberg, L. (2020). Government regulation, business leaders' motivations and environmental performance of SMEs. *Journal of Environmental Planning and Management*, 63(8), 1335–1355. <https://doi.org/10.1080/09640568.2019.1663159>.
- Hamadamin, H. H., & Atan, T. (2019). The impact of strategic human resource management practices on competitive advantage sustainability: The mediation of human capital development and employee commitment. *Sustainability* (Switzerland), 11(20). <https://doi.org/10.3390/su11205782>.
- Hasibuan, R., Arnesih, Anggraini, D., Yona, M., Hisyam, M., & Lubis, U. S. (2026). Human resource management and its impact on employee performance in MSMEs—SLR. *Frontiers in Sustainability*, 7(February), 1–10. <https://doi.org/10.3389/frsus.2026.1764507>.
- Janssen, O. (2000). Job demands, perceptions of effort–reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287–302. <https://doi.org/10.1348/096317900167038>.
- Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55(6), 1264–1294. <https://doi.org/10.5465/amj.2011.0088>.
- Kaplan, R. S., & Norton, D. P. (2005). The balanced scorecard: Measures That drive performance. *Harvard Business Review*, 83(7–8), 1–19.
- Katuk, N., Ku-Mahamud, K. R., Kayat, K., Abdul Hamid, M. N., Zakaria, N. H., & Purbasari, A. (2021). Halal certification for tourism marketing: the attributes and attitudes of food operators in Indonesia. *Journal of Islamic Marketing*, 12(5), 1043–1062. <https://doi.org/10.1108/JIMA-03-2020-0068>.
- Li, S., Jia, R., Seufert, J. H., Hu, W., & Luo, J. (2022). The impact of ability-, motivation- and opportunity-enhancing strategic human resource management on performance: the mediating roles of emotional capability and intellectual capital. *Asia Pacific Journal of Human Resources*, 60(3), 453–478. <https://doi.org/10.1111/1744-7941.12293>.
- Meekeawunchorn, N., Szczepańska-Woszczyna, K., Muangmee, C., Kassakorn, N., & Khalid, B. (2021). Entrepreneurial orientation and sme performance: The mediating role of learning orientation. *Economics and Sociology*, 14(2), 294–312. <https://doi.org/10.14254/2071-789X.2021/14-2/16>.
- National Committee for Sharia Economics and Finance (KNEKS). (2023). *Training for Halal Product Process Companions for Zakat Collection Institutions*. Jakarta: KNEKS.
- Neneh, B. N. (2023). Young entrepreneurs, innovation capability, and business adaptability in SMEs. *Journal of Innovation and Entrepreneurship*, 12(1), 1–18. <https://doi.org/10.1186/s13731-023-00276-4>.
- Nor, N. M., Johar, E. R., & Khairi, S. M. M. (2021). The study on human resource practices and amo model and its impact on employee commitment among Gen Y SMEs employees in Selangor, Malaysia. *International Journal of Business and Society*, 22(3), 1602–1622. <https://doi.org/10.33736/ijbs.4324.2021>.
- Oemar, H., Prasetyaningih, E., Bakar, S. Z. A., Djamaludin, D., & Septiani, A. (2023). Awareness and intention to register halal certification of micro and small-scale food enterprises. *F1000Research*, 11, 1–55. <https://doi.org/10.12688/f1000research.75968.3>.
- Prieto, I. M., & Pérez-Santana, M. P. (2014). Managing innovative work behavior: The role of human resource practices. *Personnel Review*, 43(2), 184–208. <https://doi.org/10.1108/PR-11-2012-0199>.
- Rahman, A. A., Singhry, H. B., Hanafiah, M. H., & Abdul, M. (2021). Influence of perceived benefits and traceability system on the readiness for Halal Assurance System implementation among food SMEs. *Journal of Islamic Marketing*, 12(4), 838–856. <https://doi.org/10.1108/JIMA-01-2020-0012>.
- Razak, M. I. A., Fauzi, N. A., & Yusoff, R. Z. (2022). Halal business practices and sustainable competitive advantage among SMEs. *Journal of Islamic Marketing*, 13(5), 1123–1140. <https://doi.org/10.1108/JIMA-07-2020-0213>.
- Syed, J., & Kramar, R. (2017). *Human resource management: A global and critical perspective*. London: Palgrave Macmillan.
- Tseng, C. C., & Chiu, S. F. (2020). The relationship between organizational culture and innovative work behavior in service organizations. *Journal of Organizational Change Management*, 33(5), 874–891. <https://doi.org/10.1108/JOCM-02-2019-0045>.
- Widodo, A. C., Rudiana, R., & Nuryanto, Y. (2024). Supervision of Halal Product Assurance (JPH) by the Halal Product Assurance Organizing Agency (BPJPH). *JIIIP - Scientific Journal of Educational Sciences*, 7(10), 12368–12377. <https://doi.org/10.54371/jiip.v7i10.6186>.