

Service-Oriented HR Practices and Service Performance in Borobudur Tourism MSMEs: Employee Engagement as Mediator

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Abstract

This study examines the relationships between Service-Oriented Human Resource Management (SOHRM), employee engagement, and service performance among tourism MSMEs around Borobudur. A cross-sectional questionnaire survey provided 380 valid responses obtained through purposive sampling. The relationships were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM). SOHRM was positively associated with employee engagement ($\beta = 0.527$, $p < 0.001$) and service performance ($\beta = 0.159$, $p = 0.001$). Engagement was also associated with service performance ($\beta = 0.525$, $p < 0.001$). The indirect association through engagement was significant ($\beta = 0.277$, $p < 0.001$), consistent with partial mediation. The cross-sectional design, self-reported data, and non-probability sampling limit causal interpretation and generalization. SOHRM had an average variance extracted of 0.467, below the conventional convergent-validity threshold, and four initial indicators were excluded. Service-oriented Human Resources (HR) practices were related to service performance directly and through employee engagement. This study connects the ability–motivation–opportunity and job demands–resources perspectives with service provision in heritage-tourism MSMEs. This study identifies an engagement-related pathway in smaller tourism enterprises while showing the need for further validation of the reduced SOHRM measure.

Keywords: Employee Engagement, Service-Oriented Human Resource Management, Service Performance, Tourism MSMEs

1. INTRODUCTION

At Borobudur, the visitor experience extends beyond the temple complex to encounters with batik producers, souvenir sellers, culinary businesses, village tourism services, and other local providers. The reliability and responsiveness of these interactions matter for the overall experience of a heritage destination. Studies conducted in the Borobudur setting have linked service quality with tourist satisfaction and loyalty and highlighted the contribution of service providers to heritage tourism ([Hardani et al., 2024](#); [Hidayah et al., 2025](#); [Sasongko et al., 2025](#)). For tourism Micro, Small, and Medium Enterprises (MSMEs), service performance is consequently an everyday operational concern with implications beyond the individual business.

Tourism MSMEs often manage people through close supervision and informal routines rather than through dedicated human resource departments. This raises a practical question: Which people-management practices help service providers respond consistently to visitors' needs? Service-Oriented Human Resource Management (SOHRM) addresses this question through training, opportunities to make service decisions, performance feedback, and recognition of service contributions. The Ability Motivation Opportunity (AMO) perspective suggests that these practices can support performance by developing skills, encouraging effort, and allowing workers to act on their capabilities ([Jiang et al., 2012](#); [Jo et al., 2020, 2023](#)).

The same practices may influence service delivery through a second pathway. From the Job Demands–Resources (JD-R) perspective, support, autonomy, feedback, and learning opportunities constitute resources that can sustain employees' engagement with their work ([Bakker & Demerouti, 2017](#); [Kristiana et al., 2025](#)). Engagement, reflected in vigor, dedication, and absorption, may encourage workers to invest sustained attention and effort in their service roles ([Schaufeli et al., 2006](#)). Therefore, SOHRM may be associated with service performance directly through service-related capabilities and indirectly through employee engagement.

Evidence for these relationships has accumulated mainly in formal service organizations. Research on service-oriented HR systems has examined hospitality, retail, and other organized service settings ([Gürlek & Uygur, 2021](#); [Huang & Peng, 2023](#); [Jo et al., 2023](#)). More recently, [Wang \(2025\)](#) found that high-performance HR practices were related to hospitality service performance through team engagement, while [Kotzé and Mostert \(2025\)](#) identified links among service-oriented work systems, engagement, service climate, and retail service performance. These studies offer relevant explanations but were conducted in organizational structures that differ from those of smaller businesses serving Borobudur visitors.

In destination-based MSMEs, customer contact may be handled by a small group of service providers who face fluctuating visitor demand, varied requests, and limited opportunities for formal training. Whether engagement helps connect service-oriented HR practices with performance in such settings remains insufficiently understood. This distinction matters because organizational resources and daily service experience are often closely intertwined in small businesses. Evidence from large hotels or retail chains cannot simply be assumed to describe these relationships in heritage tourism MSMEs.

This study examines the direct relationships among SOHRM, employee engagement, and service performance, and the indirect relationship through engagement among Borobudur tourism MSME service providers. By bringing together AMO and JD-R, the analysis distinguishes the capability-based contribution of HR practices from the motivational process through which these practices may be expressed in service behavior. This study also extends the existing evidence to a heritage tourism setting characterized by diverse, relatively small-scale service businesses. Specifically, this study tests whether SOHRM is positively associated with employee engagement and service performance, whether engagement is positively associated with service performance, and whether engagement mediates the SOHRM–service performance relationship. The findings are intended to inform practical people-management decisions in tourism MSMEs without assuming that formal HR systems are necessary for effective service delivery.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Integrating the Ability Motivation Opportunity and Job Demands–Resources Perspectives

SOHRM brings a service-quality objective to human resource practices. Training can develop technical and interpersonal abilities; feedback and recognition can clarify expectations and reinforce motivation; and empowerment can create opportunities to address visitors' needs ([Jiang et al., 2012](#); [Jo et al., 2020, 2023](#); [Chen & Chi, 2022](#)). These functions correspond to the ability, motivation, and opportunity components of the AMO perspective. From this standpoint, SOHRM is associated with service performance because employees are better prepared and better positioned to carry out their service responsibilities.

The JD-R perspective complements, rather than duplicates, this explanation. Practices that provide guidance, recognition, and autonomy can also be experienced as job resources, making workers more energetic and involved in their work ([Bakker & Demerouti, 2017](#)). Therefore, AMO clarifies what employees are equipped and enabled to do, whereas JD-R explains why those resources may encourage sustained psychological investment. Together, the perspectives imply two connected paths: a direct association between SOHRM and service performance and an indirect association through employee engagement. This distinction is useful in tourism MSMEs, where the same day-to-day practice can simultaneously develop a service skill and signal that the worker's contribution matters ([Huang & Peng, 2023](#); [Wang, 2025](#); [Wizha & Anisah, 2026](#)).

2.2 Service-Oriented Human Resource Management and Employee Engagement

Employee engagement is a positive work-related state characterized by vigor, dedication, and high levels of absorption ([Schaufeli et al., 2006](#)). Service-oriented training can reduce uncertainty when handling customer requests, and meaningful feedback provides workers with a clearer sense of their contribution. Empowerment allows employees to exercise judgment during service encounters, and recognition acknowledges the effort involved. Viewed through the JD-R, these practices represent

resources likely to sustain involvement rather than merely prescribe expected behavior ([Bakker & Demerouti, 2017](#); [Rabiul et al., 2022](#)).

Studies in organized service settings support this relationship. [Kotzé and Mostert \(2021\)](#) associated service-oriented work practices with engagement, and [Huang and Peng \(2023\)](#) linked a service-oriented HR practices bundle to work engagement among frontline employees. More recent evidence from retail stores also suggests that shared perceptions of service-oriented work systems are associated with engagement ([Kotzé & Mostert, 2025](#)). In tourism MSMEs, similarly supportive practices may matter despite their less formal delivery. The first hypothesis is therefore proposed:

H₁: SOHRM is positively associated with Employee Engagement (EA)

2.3 Service-Oriented Human Resource Management and Service Performance

Service performance concerns how effectively workers fulfill the service requirements of their role ([Liao & Chuang, 2004](#)). For tourism MSMEs, this includes providing accurate information, responding appropriately to visitors' requests, and resolving routine service problems. The AMO perspective suggests that employees are more likely to meet these requirements when they possess relevant skills, receive motivating feedback, and have sufficient discretion to act. SOHRM provides an organizational basis for these conditions ([Jiang et al., 2012](#); [Jo et al., 2023](#)).

Research has linked service-oriented HR systems with frontline service behavior and role performance ([Wang & Xu, 2017](#); [Gürlek & Uygur, 2021](#); [Huang & Peng, 2023](#)). In a hospitality study, [Wang \(2025\)](#) reported a positive relationship between high-performance HR practices and service performance. Although the precise configuration of practices may vary across business sizes, training, guidance, and discretion can be relevant wherever workers handle customer-facing tasks. This leads to the second hypothesis:

H₂: SOHRM is positively associated with service performance in the hospitality industry

2.4 Employee Engagement and Service Performance

Engaged employees are more likely to devote attention and persistence to their work, and workplace autonomy can further support their task performance ([Pattnaik & Sahoo, 2021](#)). In visitor-facing roles, vigor can help sustain effort during busy periods, dedication can reinforce the importance of serving tourists well, and absorption can support concentration while responding to individual requests. These associations are consistent with the view of engagement as a motivational state connected to role performance ([Schaufeli et al., 2006](#); [Chen & Peng, 2021](#); [Ghlichlee & Bayat, 2021](#)).

Evidence from hospitality and other service occupations generally connects engagement to favorable performance outcomes ([Bhardwaj & Kalia, 2021](#); [Liu et al., 2022](#); [Michel et al., 2023](#)). A recent hospitality study also linked leader support to service performance through work engagement ([Zhu et al., 2026](#)). However, this relationship is context-dependent. Van [Vaerenbergh and Hazée \(2024\)](#) found that employee engagement does not uniformly translate into better customer evaluations in technology-mediated encounters. In the present study, service performance concerns respondents' perceived fulfillment of their service roles, rather than independent customer ratings. Greater engagement is expected to be positively associated with role-based outcomes.

H₃: Employee engagement is positively associated with service performance

2.5 The Mediating Role of Employee Engagement

SOHRM may relate to service performance not only by strengthening employees' service capabilities but also by fostering the engagement with which those capabilities are used. Training and empowerment provide knowledge and discretion, whereas feedback and recognition reinforce meaningful participation in service work. Within the combined AMO and JD-R frameworks, these

resources may increase engagement, which in turn can be expressed in more attentive and consistent service role performance ([Bakker & Demerouti, 2017](#); [Huang & Peng, 2023](#)).

Empirical studies support the engagement-related pathway. [Luu \(2019\)](#) found that work engagement mediates the relationship between service-oriented high-performance work systems and service-oriented in-role behavior in public service organizations. [Huang and Peng \(2023\)](#) identified a sequential pathway from service-oriented HR practices to frontline service performance that involves work engagement. More recent hospitality evidence shows an indirect relationship between high-performance HR practices and service performance through team engagement ([Wang, 2025](#)). Although these studies differ in level of analysis and organizational context, they support testing whether employee engagement carries part of the SOHRM–performance relationship among Borobudur tourism MSMEs.

H₄: Employee engagement mediates the relationship between SOHRM and service performance

3. RESEARCH METHODOLOGY

A quantitative, cross-sectional survey was used to assess the relationships among SOHRM, employee engagement, and service performance. Partial Least Squares Structural Equation Modeling (PLS-SEM) was applied using SmartPLS to estimate the measurement and structural models. This approach allows latent-variable relationships and an indirect path to be estimated within the same model. The analysis covers indicator properties, construct reliability, convergent and discriminant validity, collinearity, explained variance, model fit indices, and path significance ([Hair et al., 2019](#); [Henseler et al., 2015](#)). Because the data were collected at one point in time, the path estimates are interpreted as statistical associations rather than demonstrated causal effects.

The target population comprised service providers working in tourism and creative economy MSMEs in the Borobudur area of Magelang Regency, Central Java. Respondents were selected purposively on the basis of at least six months' involvement in local MSME activities, direct contact with tourists or customers, an age of 18 years or older, and willingness to participate. The number of eligible service providers could not be established reliably. A conventional large-population proportion formula was therefore used as a sample-planning benchmark: $n = Z^2p(1 - p)/e^2$. With $Z = 1.96$, $p = 0.50$, and $e = 0.06$, the calculation yields $n = 266.78$, rounded up to 267. The 6% value was used as a pragmatic planning parameter for the field survey; it does not represent a verified sampling margin of error because recruitment was nonprobabilistic. The final dataset contained 380 valid responses, exceeding the planning benchmark. Purposive selection nevertheless limits population-level statistical generalization.

Data were obtained through a structured questionnaire with responses on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The original SOHRM framework covered service training and upskilling, empowerment and participation, service-based performance feedback, and rewards and recognition, drawing on studies of service-oriented HR practices ([Gürlek & Uygur, 2021](#); [Jo et al., 2020, 2023](#)). Employee engagement was represented by vigor, dedication, and absorption using the nine-item Utrecht Work Engagement Scale ([Schaufeli et al., 2006](#)). Service performance is addressed in-role service task performance ([Liao & Chuang, 2004](#)). The measurement framework is presented in Table 1. All constructs were assessed from respondents' questionnaire responses rather than independent managerial or tourist evaluations.

Table 1. Operationalization of research variables

Variables	Operational Definition	Dimension or Indicator	Source
SOHRM (X)	Service providers' perceptions of human resource management practices directed toward improving service quality	Service training and upskilling, Empowerment and participation, Service-based performance feedback, Rewards and recognition	Gürlek & Uygur (2021)

Variables	Operational Definition	Dimension or Indicator	Source
Employee Engagement (Z)	A positive psychological state that reflects the service provider's level of energy, involvement, and concentration in performing work.	Vigor, Dedication, Absorption	Schaufeli et al. (2006)
Service Performance (Y)	The level of service providers' ability to perform service tasks in accordance with applicable standards and role expectations.	In role service performance	Liao & Chuang (2004)

The measurement model was examined through indicator loadings, Cronbach's alpha, rho_A, composite reliability, Average Variance Extracted (AVE), the Heterotrait–Monotrait Ratio (HTMT), and the Fornell–Larcker criterion. An AVE of at least 0.50 was used as the conventional benchmark for convergent validity, while reliability and the conceptual relevance of retained items were assessed separately ([Fornell & Larcker, 1981](#); [Hair et al., 2019](#)). Structural model assessment included variance inflation factors, R^2 , standardized path coefficients, the specific indirect effect, and SRMR. Statistical significance was assessed using the reported bootstrap t and p values at the 5% level. Structural relationships are interpreted by considering both their statistical significance and the measurement limitations of the constructs involved.

4. RESULTS AND DISCUSSION

4.1 Respondent Characteristics

The study included 380 service providers from several tourism and creative economy MSMEs. Table 2 describes their gender, age, business sector, and length of time their businesses had operated. These characteristics provide context for interpreting a model drawn from businesses with different service activities and operating histories.

Table 2. Respondent characteristics

Characteristic	Category	Frequency	Percentage (%)
Gender	Female	286	75.3
	Male	94	24.7
	Total	380	100.0
Age	≤ 25 years	9	2.4
	26 to 35 years	67	17.6
	36 to 45 years	48	12.6
	46 to 55 years	169	44.5
	> 55 years	87	22.9
	Total	380	100.0
Business Type	Batik including Batik Fashion	116	30.5
	Balkondes	61	16.1
	Souvenirs	51	13.4
	Culinary	45	11.8
	Retail	41	10.8
	Food and Beverage including Wringinputih F&B	27	7.1
	Handicrafts	14	3.7
	Massage Services	13	3.4
	Accessories	12	3.2
	Total	380	100.0

Characteristic	Category	Frequency	Percentage (%)
Years in Business	≤ 5 years	133	35.0
	6 to 10 years	60	15.8
	11 to 20 years	116	30.5
	21 to 30 years	25	6.6
	> 30 years	46	12.1
	Total	380	100.0

Women accounted for 75.3% of the respondents, and the largest age category was 46–55 years (44.5%). Batik and batik fashion formed the largest business group (30.5%), followed by Balkondes (16.1%) and souvenir businesses (13.4%). In terms of business age, 35.0% were associated with businesses operating for no more than five years, whereas 30.5% reported business histories of 11–20 years. This range of sectors and operating histories indicates diversity within the surveyed group, although purposive recruitment does not establish its representativeness of all Borobudur tourism MSMEs.

4.2 Measurement Model Evaluation

Table 3. Initial outer loadings of the SOHRM construct

Indicator	Outer Loading	Decision
SO1	0.677	Retained
SO2	0.581	Retained
SO3	0.513	Retained
SO4	0.815	Retained
SO5	0.696	Retained
SO6	0.679	Retained
SO7	0.673	Retained
SO8	0.797	Retained
SO9	0.640	Retained
SO10	0.575	Retained
SO11	0.747	Retained
SO12	0.731	Retained
SO13	0.441	Removed
SO14	0.434	Removed
SO15	-0.065	Removed
SO16	0.007	Removed

The SOHRM construct initially comprised 16 indicators. Four items (SO13–SO16) had initial loadings below 0.50 and were excluded as presented in Table 3. The remaining items were retained for the final estimation, including some with loadings below 0.70. Their retention requires consideration of reliability and the substantive meaning of the construct rather than a loading cut-off alone (Hair et al., 2019). Deleting weak items may improve numerical indices but can also alter the domain represented by a multidimensional practice construct. Because the available statistical summary does not identify the domain allocation of SO13–SO16, complete coverage of the four original practice domains cannot be verified from the reported loadings. The final SOHRM score was consequently treated as a reduced 12-item measure.

Table 4. Final model outer loadings

Construct	Indicator	Outer Loading	Decision
Employee Engagement	EE1	0.787	Retained
	EE2	0.830	Retained

Construct	Indicator	Outer Loading	Decision
Employee Engagement	EE3	0.681	Retained
	EE4	0.722	Retained
	EE5	0.738	Retained
	EE6	0.660	Retained
	EE7	0.727	Retained
	EE8	0.736	Retained
	EE9	0.805	Retained
SOHRM	SO1	0.679	Retained
	SO2	0.580	Retained
	SO3	0.517	Retained
	SO4	0.814	Retained
	SO5	0.696	Retained
	SO6	0.684	Retained
	SO7	0.671	Retained
	SO8	0.795	Retained
	SO9	0.641	Retained
	SO10	0.579	Retained
	SO11	0.747	Retained
	SO12	0.733	Retained
Service Performance	SP1	0.760	Retained
	SP2	0.759	Retained
	SP3	0.821	Retained
	SP4	0.735	Retained
	SP5	0.824	Retained
	SP6	0.858	Retained

As presented in Table 4, following item exclusion, the final outer loadings ranged from 0.660 to 0.830 for employee engagement, 0.517 to 0.814 for SOHRM, and 0.735 to 0.858 for service performance. Several SOHRM loadings were comparatively modest. These indicators were retained in the analysis, but their lower shared variance is relevant to the evaluation of convergent validity, rather than evidence that all indicators performed equally well.

Internal consistency estimates were satisfactory across all three constructs. Cronbach's alpha and composite reliability were 0.899 and 0.918 for employee engagement, 0.898 and 0.912 for SOHRM, and 0.882 and 0.911 for service performance As presented in Table 5. Values above 0.70 support the consistency of the retained items but do not, by themselves, establish their convergent validity.

Table 5. Reliability and convergent validity

Construct	Cronbach Alpha	rho_A	rho_C	AVE	Interpretation
Employee Engagement	0.899	0.906	0.918	0.555	Reliable, convergent validity established
SOHRM	0.898	0.918	0.912	0.467	Reliable, convergent validity marginal
Service Performance	0.882	0.889	0.911	0.630	Reliable, convergent validity established

The AVE values of employee engagement (0.555) and service performance (0.630) were above the conventional 0.50 threshold. SOHRM yielded an AVE of 0.467, meaning that its retained indicators did not, on average, share the recommended proportion of variance with their construct. The SOHRM composite reliability of 0.912 supports internal consistency, and the construct was retained in the structural analysis because it remained central to the theoretical model and retained

multiple substantively relevant indicators. This is a limited analytical justification, not evidence that convergent validity has been fully established. The subthreshold AVE and several moderate loadings warrant caution in interpreting SOHRM paths; item-level and domain-level validation remains necessary before stronger measurement claims are made (Fornell & Larcker, 1981; Hair et al., 2019).

Discriminant validity was assessed using HTMT, which provides information on the empirical separation of latent constructs. The pairwise HTMT results are presented in Table 6.

Table 6. Heterotrait monotrait ratio

Construct Relationship	HTMT	Interpretation
SOHRM ↔ Employee Engagement	0.546	Established
Service Performance ↔ Employee Engagement	0.675	Established
Service Performance ↔ SOHRM	0.428	Established

HTMT values ranged from 0.428 to 0.675, remaining below the 0.90 benchmark. These values suggest that the three constructs are distinguishable in the present measurement model (Henseler et al., 2015). This evidence concerns discriminant validity and does not resolve the SOHRM convergent validity concern.

As a complementary assessment, the Fornell–Larcker criterion compares the square root of each construct's AVE with its correlations with other constructs As presented in Table 7.

Table 7. Fornell larcker criterion

Construct	Employee Engagement	SOHRM	Service Performance
Employee Engagement	0.745		
SOHRM	0.527	0.683	
Service Performance	0.609	0.436	0.794

Table 7 shows the diagonal entries (0.745 for employee engagement, 0.683 for SOHRM, and 0.794 for service performance) exceeded the corresponding correlations between constructs. This pattern is consistent with discriminant validity. Nevertheless, SOHRM's AVE of 0.467 remained below the convergent-validity threshold and was interpreted separately from its discriminant-validity results.

4.3 Structural Model Evaluation

The structural model was examined after the measurement assessment, with the SOHRM convergent validity limitation carried forward into the interpretation. Figure 1 displays the estimated model, including the retained indicators, standardized path coefficients, and R^2 values for both endogenous variables.

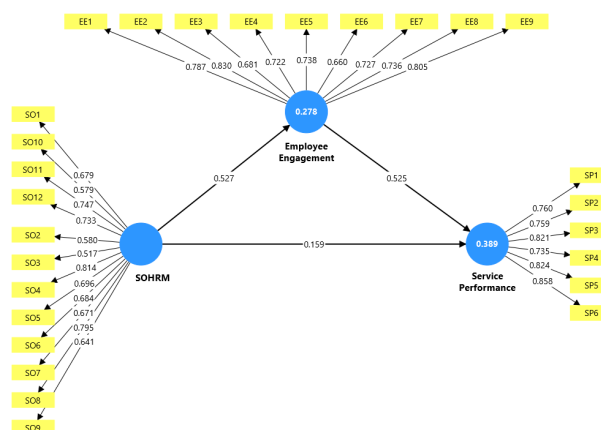


Figure 1. Final PLS-SEM Structural Model

Table 8. Model fit

Indicator	Saturated Model	Estimated Model
SRMR	0.069	0.069
d_ ULS	1.791	1.791
d_ G	0.355	0.355
Chi Square	777.917	777.917
NFI	0.853	0.853

Table 8 shows the SRMR was 0.069, below the commonly used 0.08 reference value, and consistent with an acceptable approximate fit. NFI was 0.853 and is included for descriptive completeness rather than treated as proof of overall fit. The d_ ULS and d_ G values cannot be assessed as confirmatory fit tests without their bootstrap-based reference distributions. Model appraisal therefore also rests on the measurement results, collinearity diagnostics, explained variance, and the estimated paths (Hair et al., 2019).

Table 9. Inner VIF

Relationship	VIF
SOHRM → Employee Engagement	1.000
Employee Engagement → Service Performance	1.385
SOHRM → Service Performance	1.385

As presented in Table 9, the inner Variance Inflation Factor (VIF) values ranged from 1.000 to 1.385, indicating no problematic multicollinearity among the predictor constructs. The relationship between SOHRM and employee engagement recorded a VIF of 1.000, while both SOHRM and employee engagement showed VIF values of 1.385 in predicting service performance. All values were well below the commonly accepted threshold of 5.0, suggesting that collinearity does not pose a significant concern in the structural model. These findings support the stability of the estimated path coefficients and indicate that the predictor constructs provide sufficiently distinct information for evaluating their relationships with the endogenous variables.

Table 10. Coefficient of determination

Endogenous Construct	R Square	R Square Adjusted
Employee Engagement	0.278	0.276
Service Performance	0.389	0.386

As shown in Table 10, SOHRM explained 27.8% of the variance in employee engagement ($R^2 = 0.278$), with an adjusted R^2 of 0.276, indicating modest explanatory power. Meanwhile, SOHRM and employee engagement jointly accounted for 38.9% of the variance in service performance ($R^2 = 0.389$), with an adjusted R^2 of 0.386. These results suggest that the proposed structural model explains a meaningful proportion of variation in both endogenous constructs, particularly service performance. The remaining unexplained variance indicates that additional factors related to employee characteristics, organizational conditions, and service interactions may influence these outcomes. The relatively small differences between R^2 and adjusted R^2 also suggest limited adjustment for model complexity. Nevertheless, these values reflect within-sample explanatory power rather than predictive accuracy in an independent dataset.

4.4 Hypothesis Testing

Structural relationships were assessed using reported standardized coefficients, bootstrap t statistics, and p values. Values shown as 0.000 in the source output are presented as $p < 0.001$. Table 11 summarizes the direct paths.

Table 11. Direct effect hypothesis testing

Hypothesis	Relationship	β	T Statistics	P Value	Decision
H_1	SOHRM $\rightarrow$ Employee Engagement	0.527	15.718	< 0.001	Supported
H_2	SOHRM $\rightarrow$ Service Performance	0.159	3.250	0.001	Supported
H_3	Employee Engagement $\rightarrow$ Service Performance	0.525	12.329	< 0.001	Supported

The association between SOHRM and employee engagement was positive and statistically significant ($\beta = 0.527$, $t = 15.718$, $p < 0.001$), supporting H_1 . SOHRM was also positively associated with service performance ($\beta = 0.159$, $t = 3.250$, $p = 0.001$), thus supporting H_2 . Employee engagement was positively associated with service performance ($\beta = 0.525$, $t = 12.329$, $p < 0.001$), supporting H_3 . Of the two predictors of service performance, employee engagement had a larger standardized coefficient. The mediating path was evaluated through the specific indirect effects reported in Table 12.

Table 12. Specific indirect effect

Hypothesis	Mediation Path	β	T Statistics	P Value	Decision
H_4	SOHRM $\rightarrow$ Employee Engagement $\rightarrow$ Service Performance	0.277	9.211	< 0.001	Supported, Partial Mediation

Table 12 shows the indirect association between SOHRM and service performance through employee engagement was positive ($\beta = 0.277$, $t = 9.211$, $p < 0.001$), supporting H_4 . The direct path of SOHRM remained significant in the model that included engagement, which is consistent with partial mediation. The estimated indirect coefficient exceeded the direct coefficient (0.277 versus 0.159), indicating that the engagement-related pathway was substantial in this sample. Because the data are cross-sectional, the mediation result describes a statistically consistent pathway rather than a verified temporal or causal sequence.

4.5 Discussion

4.5.1 Effect of SOHRM on Employee Engagement

Among Borobudur tourism MSMEs, SOHRM was positively related to employee engagement. A useful explanation lies in the immediacy of people-management practices in small, customer-facing businesses. When workers receive guidance on handling visitor requests, can exercise judgment in routine situations, and gain feedback from people close to daily operations, such practices may be experienced as tangible support. This can matter where roles are broad and standardized HR procedures are limited. The JD-R perspective interprets training opportunities, autonomy, and feedback as job resources that can sustain energy and involvement (Bakker & Demerouti, 2017).

The association is compatible with evidence from formal service workplaces (Huang & Peng, 2023; Kotzé & Mostert, 2021) and recent retail research showing relationships among service-oriented work systems and engagement (Kotzé & Mostert, 2025). The Borobudur setting adds a different organizational context: service-related resources do not need to be delivered through a dedicated HR department to be relevant to engagement. At the same time, the survey could not determine which individual practice most strongly contributed to engagement, especially given the SOHRM measurement limitations.

4.5.2 Effect of SOHRM on Service Performance

The positive SOHRM-service performance association was smaller than the engagement-performance association. In practical terms, service training may help staff describe products accurately, feedback may clarify how to respond to complaints, and discretion may allow employees to adapt to diverse visitor requests. These are routes through which skills, motivation, and opportunities can be connected to service tasks under AMO. The modest direct coefficient suggests that such practices are related to service performance, but their contribution should not be overstated when engagement is considered simultaneously (Wang & Xu, 2017; Jo et al., 2023).

Service encounters in heritage destinations are particularly varied: a batik seller, culinary provider, and village tourism worker may each face different expectations while contributing to the same destination's experience. Therefore, consistent interactions can matter across businesses rather than within a single firm. Findings linking service quality with satisfaction and loyalty at Borobudur underline this broader relevance ([Hidayah et al., 2025](#); [Sasongko et al., 2025](#)). However, the present survey measured service providers' perceived role performance and did not directly establish changes in tourist satisfaction, loyalty, or objective service outcomes.

4.5.3 Effect of Employee Engagement on Service Performance

Employee engagement had the strongest direct association with service performance in the model. Work that requires direct visitor contact often calls for attention, patience, and a willingness to adjust communication to the situation. Workers who report higher vigor and dedication may be better able to sustain these demands, while absorption may help them remain focused during complex service interactions. This interpretation is consistent with research linking engagement to service and task performance ([Chen & Peng, 2021](#); [Ghlichlee & Bayat, 2021](#); [Michel et al., 2023](#)).

Nevertheless, this relationship is not automatic in every service context. Van [Vaerenbergh and Hazée \(2024\)](#), for example, did not observe a uniformly favorable engagement–customer evaluation relationship in technology-mediated encounters. Their outcome concerns customer assessments, whereas the current study examines self-reported in-role performance. This distinction reinforces a narrower interpretation: in the Borobudur sample, engagement was strongly associated with providers' own assessments of service task performance, not necessarily with tourists' independent judgments of service quality.

4.5.4 Mediating Role of Employee Engagement

Employee engagement carried a significant part of the relationship between SOHRM and service performance, while the direct path remained significant. This suggests two related processes. Service-oriented HR practices may support performance by equipping workers with practical capabilities and discretion; those same practices may also encourage workers to invest greater energy and commitment in using their capabilities. For service providers in smaller tourism businesses, the psychological experience of being supported may be especially relevant because customer interactions and people-management routines often occur in close proximity.

The pattern is consistent with [Luu \(2019\)](#) evidence that engagement mediates the connection between service-oriented work systems and in-role service behavior, and with [Huang and Peng \(2023\)](#) model linking service-oriented HR practices, engagement, and frontline performance. [Wang \(2025\)](#) offers more recent evidence of an engagement pathway at the team level in the hospitality industry. These findings are not identical in terms of unit of analysis or outcome definition, but they support the view that employee engagement is a meaningful explanatory link. The present cross-sectional mediation result remains associative, and its interpretation is further conditioned by the subthreshold SOHRM AVE.

4.5.5 Managerial Implications

For small tourism enterprises, the findings favor regular, practical people-management routines over a complex formal HR system. Short service demonstrations, discussions of difficult visitor requests, opportunities to resolve routine problems, and specific feedback on service interactions can be built into daily operations. [Putra et al. \(2024\)](#) highlighted the importance of employee training, recognition, and teamwork in improving hospitality service procedures, while [Dwitama et al. \(2024\)](#) examined the relationship between leadership, work motivation, and employee performance in the hotel industry. Recognition need not involve formal reward programs; acknowledging responsive and reliable service can also convey the value placed on employee contributions. [Pramesti and Suarmana \(2024\)](#) further emphasized the relevance of a supportive work environment to employee performance in hospitality settings. These suggestions follow from the combined model rather than from a separate evaluation of each HR practice.

Simple digital records can support training notes, service feedback, and knowledge sharing where businesses have the resources to use them (Pramudita, 2025). Related research by Gegung et al. (2026) demonstrated the value of practical training and digital technology adoption in strengthening community-based tourism management capabilities. Such tools should complement, not replace, the interpersonal character of heritage tourism services. Managers should also avoid treating the estimated paths as evidence that any one intervention will cause improved service performance. Prior to practice-specific recommendations or instrument replication, the retained SOHRM indicators and their coverage of the original practice domains need further validation.

5. CONCLUSIONS

5.1 Conclusion

SOHRM was positively associated with employee engagement and service performance among Borobudur tourism MSMEs. Employee engagement had the strongest direct relationship with service performance and carried a significant indirect association between SOHRM and performance, while the SOHRM direct path remained significant. This partial-mediation pattern suggests that service-oriented HR practices matter not only as a source of service capabilities but also through workers' engagement with their roles. This study extends the combined AMO and JD-R explanation to small businesses operating in a heritage destination, while the cross-sectional design and SOHRM measurement limitations restrict causal and measurement claims.

5.2 Research Limitations

The cross-sectional design did not establish the direction or timing of the estimated relationships. Purposive sampling in one destination constrains statistical generalization, and using questionnaire responses from the same source may inflate associations through Common Method Variance (CMV). Service performance was not rated independently by managers or tourists. Furthermore, SOHRM's AVE was 0.467, below the conventional 0.50 benchmark, and four original indicators were excluded; the final measure may not capture all intended aspects of service-oriented HR practices equally well. These limitations should be considered when interpreting the model, especially the paths that involve SOHRM.

5.3 Suggestions and Directions for Future Research

Future studies could follow service providers over time and combine their reports with observations or evaluations from tourists and business managers. Multi-destination samples would help assess whether the relationships differ across heritage tourism settings. Further work is also needed to check the content and domain coverage of the SOHRM items, refine indicators through pilot testing, and reassess convergent validity before treating the measure as established for tourism MSMEs. Comparisons across business types and service roles could clarify contextual differences. Evaluating specific training, empowerment, and feedback activities through field experiments or other longitudinal designs would provide stronger evidence of their practical effects.

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AUTHOR CONTRIBUTIONS

HEA contributed to conceptualization, supervision, and writing review and editing; SR contributed to methodology and validation; SAN contributed to data analysis and interpretation; BH contributed to investigation and project administration; RDA contributed to data collection and visualization; JMOS contributed to data curation and writing—original draft. All authors reviewed and approved the final manuscript.

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