

Empowering Digital Service Employees: A Capability–Motivation–Behavior Model for Adaptive Service Excellence

Deri Prayudi^{1*}, Ratih Hurriyati², Puspo Dewi Dirgantari³

¹²³Universitas Pendidikan Indonesia, West Java, Indonesia

Abstract

Despite substantial investment in digital capabilities, service organizations continue to face inconsistent performance and employee disengagement. This study integrates Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory to examine how a Human Capability System (HCS) translates into Adaptive Service Excellence (ASE) through psychological empowerment and employee resourcefulness. Using survey data from 300 frontline employees in Indonesian banking, fintech, and hospitality firms, PLS-SEM was employed to test mediation and moderation hypotheses. Results indicate that psychological empowerment and employee resourcefulness partially mediate the HCS → ASE relationship, as significant indirect effects coexist with a persistent direct effect of HCS on ASE, jointly explaining substantial variance in adaptive service outcomes ($R^2 = 0.621$). The HCS exhibited strong positive effects on both mediators, underscoring its role as a foundational organizational dynamic capability. Psychological empowerment emerged as the most influential proximal determinant of ASE, reinforcing the importance of intrinsic motivational mechanisms in enabling adaptive performance, while employee resourcefulness provided a complementary behavioral pathway through cognitive flexibility and improvisational capacity. Furthermore, service climate strengthened the effects of HCS on both mediators, highlighting the importance of supportive service environments in activating human-centered capabilities. In contrast, organizational innovativeness did not significantly moderate the resourcefulness–ASE relationship, suggesting that innovation orientation alone may be insufficient to foster adaptability without corresponding psychological readiness. These findings emphasize that investments in human capability systems enhance adaptive service excellence through both direct and indirect pathways and must be embedded within enabling service climates to realize their adaptive potential in digitally intensive service contexts.

KEYWORDS

human capability system; adaptive service excellence; psychological empowerment; employee resourcefulness; service climate; dynamic capabilities

Introduction

Service organizations face unprecedented pressure to innovate continuously while maintaining operational efficiency and supporting employee well-being amid rapid digital transformation and market volatility ([Garrido-Moreno et al., 2024](#); [He et al., 2023](#)). Accelerating technological change, combined with rising customer expectations and increasingly diverse workforces, has fundamentally altered the creation and delivery of service value ([Ostrom et al., 2015](#)). Despite the growing recognition of the importance of innovation capability and adaptive systems, many organizations continue to struggle with performance inconsistencies, rigid service

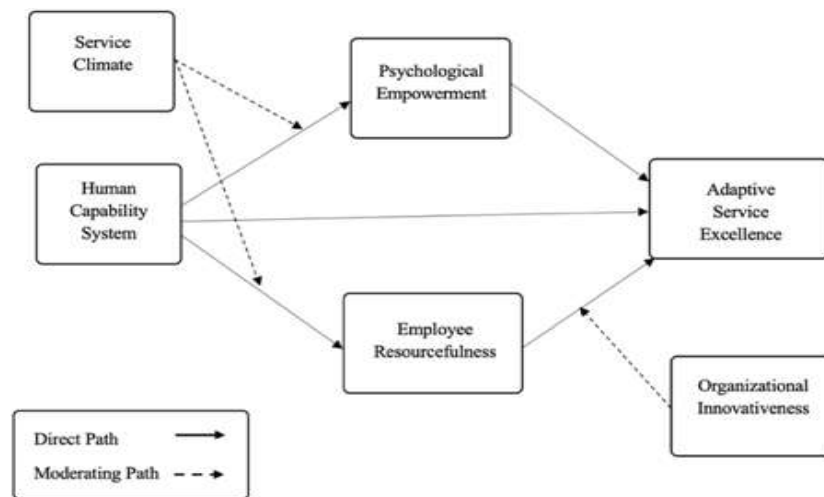


Figure 1. The Proposed Conceptual Framework.

delivery, and employee disengagement issues that compromise both customer experience and organizational resilience (A. Ali et al., 2025; Dougherty, 2018; Jaakkola et al., 2017). These ongoing challenges expose a critical management puzzle: how can service organizations build adaptive and collaborative mechanisms that enable continuous learning and innovation without compromising efficiency or exhausting their employees?

While prior research highlights the importance of digital technologies and innovation capabilities for organizational competitiveness (Lusch & Nambisan, 2015; Nambisan et al., 2017), much of this work adopts macro-level or structural perspectives that emphasize technological systems, strategic configurations, or market orientation. Such approaches often overlook the human and relational dynamics that underpin successful adaptation, particularly how employees and teams engage in value co-creation, navigate dual service roles, and transform everyday practices into sources of innovation (Patrício et al., 2017; Xie et al., 2019). As a result, existing studies provide limited insight into the micro-level mechanisms through which adaptive service performance is continuously enacted within dynamic service environments.

Research grounded in service-dominant logic and transformative service perspectives underscores that service innovation emerges from ongoing interactions among multiple actors and resources rather than from episodic strategic decisions alone (Anderson et al., 2013; Vargo & Lusch, 2016). Complementary evidence from organizational behavior and leadership research further demonstrates that human agency manifested through empowerment, learning, and proactive behavior plays a critical role in sustaining service adaptability and performance (Khuzwayo et al., 2020; Tung, 2016). However, these insights remain fragmented across theoretical traditions, and empirical research has yet to fully integrate technological, human, and motivational perspectives into a coherent explanation of how adaptive service excellence is developed and sustained in digitally intensive service contexts.

Recent theoretical developments provide a coherent foundation for positioning adaptive service excellence as a capability-driven yet human-centered phenomenon. Dynamic Capability Theory highlights that organizational adaptability depends on the continual reconfiguration of resources, increasingly recognizing human capability systems as critical microfoundations of dynamic performance (Teece, 2007, 2018). From a service

perspective, these capabilities operate as operant resources that enable value creation under changing conditions. Service-Dominant Logic further emphasizes that adaptive service excellence emerges in frontline encounters where employees integrate organizational capabilities, customer inputs, and situational cues in real time, although it offers limited insight into the motivational mechanisms underlying such enactment (Vargo & Lusch, 2016). Self-Determination Theory addresses this gap by explaining how organizational systems shape behavior through the satisfaction of employees' needs for autonomy, competence, and relatedness (Rigby & Ryan, 2018). Integrating these perspectives provides the theoretical basis for modeling the Human Capability System as a dynamic capability that operates through dual microfoundations, psychological empowerment and employee resourcefulness while being contingent on contextual conditions within service environments.

Specifically, this study models the Human Capability System as a dynamic capability that operates through dual microfoundations, psychological empowerment and employee resourcefulness, while explicitly testing the boundary conditions of service climate and organizational innovativeness in shaping adaptive service excellence. Building on this conceptualization, this study addresses four research questions that examine how Human Capability Systems influence adaptive service excellence, the mediating roles of psychological empowerment and employee resourcefulness, and the moderating effects of service climate and organizational innovativeness.

The proposed conceptual framework offers a multilevel, capability-motivation-behavior model that integrates Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory to explain adaptive service excellence as an outcome of aligned organizational capabilities, employee motivation, and contextual conditions. At the organizational level, the Human Capability System represents a dynamic capability infrastructure that enables learning and adaptability (Salmela et al., 2022). At the psychological and behavioral levels, empowerment and resourcefulness capture the motivational and agentic mechanisms through which these capabilities are enacted in frontline service encounters (Chou et al., 2022; Pigola et al., 2023; Y. Xu et al., 2022).

This study makes several distinctive contributions to the literature on adaptive service performance and human-centered capabilities. While prior research has acknowledged the importance of contextual enablers such

as service climate and organizational innovativeness ([Al Jabri et al., 2024](#); [Dash et al., 2021](#)), empirical evidence remains limited regarding how these factors condition the transformation of human capability systems into adaptive service outcomes ([Jung et al., 2023](#); [Manapajon et al., 2017](#)). This dual-moderation approach captures the complex, multilevel interplay between system capability, individual agency, and organizational context—an interaction largely overlooked in prior work.

By integrating insights from Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory, this study advances a multi-level and cross-theoretical understanding of adaptive service excellence. The conceptual model ([figure 1](#)) clarifies how Human Capability Systems shape adaptive service outcomes through dual microfoundations of empowerment and resourcefulness, while also incorporating the boundary conditions imposed by service climate and organizational innovativeness. The model thus bridges macro-level capability perspectives with micro-level motivational and behavioral processes, providing a coherent explanation of how adaptive service excellence is developed and sustained in digitally intensive service contexts.

Methods

Research Design

This study employed a quantitative cross-sectional survey design to examine the relationships among Human Capability System, Psychological Empowerment, Employee Resourcefulness, Adaptive Service Excellence, Service Climate, and Organizational Innovativeness. The design was appropriate for capturing employees' perceptions of organizational capability systems and adaptive service behaviors at a single point in time within digitally intensive service contexts ([Gao & Liu, 2022](#)).

Population and Sample/Informants

The population comprised frontline employees and supervisors in digital service-oriented organizations in Indonesia. Data were collected from 22 organizations operating in banking, digital banking, fintech, and hospitality sectors characterized by high customer interaction and rapid technological change. A purposive sampling strategy was used to recruit respondents directly involved in service delivery or innovation activities, aligning the sample with the study's focus on adaptive service behaviors while acknowledging limited generalizability beyond similar contexts.

The final sample included 300 valid responses. Respondents' mean age was 31.8 years ($SD = 5.6$), with an average organizational tenure of 5.7 years ($SD = 3.9$). Females comprised 56.3% of the sample. Frontline staff represented 61.0%, supervisors 22.7%, and managers 16.3%. Industry representation included banking/digital banking (40.7%), fintech (30.3%), and hospitality/tourism (29.0%). (See [Table 1](#)).

Instrumentation or Tools

All constructs were measured using established multi-item scales adapted to the digital service context

([Margeviča-Grinberga & Šmitić na, 2021](#)) and rated on five-point Likert scales (1 = strongly disagree; 5 = strongly agree). A translation and back-translation protocol was rigorously implemented. The translated instruments were reviewed by bilingual subject matter experts to confirm semantic consistency and contextual appropriateness.

Human Capability System was measured with six items assessing capability development and learning systems ([K. Jiang & Messersmith, 2018](#); [Wright & Snell, 1998](#)). Psychological Empowerment was captured with twelve items covering meaning, competence, self-determination, and impact ([Spreitzer, 1995](#)). Employee Resourcefulness was measured using five items reflecting improvisation and creative problem solving ([Harris et al., 2011](#)). Adaptive Service Excellence comprised five items assessing adaptive service behaviors ([Rank et al., 2004](#); [Wu et al., 2021](#)). Service Climate and Organizational Innovativeness were measured with eight and six items, respectively ([Calantone et al., 2002](#); [B. W. Schneider et al., 1998](#)).

All constructs demonstrated satisfactory psychometric properties ($CR \geq 0.79$; $AVE \geq 0.51$). Discriminant validity was supported using HTMT (< 0.90), with all values below the conservative 0.90 criterion recommended by [Hair et al. \(2014\)](#).

Data Collection Procedures

Data were collected via an online survey distributed through organizational contacts and professional associations. Participation was voluntary and anonymous, with informed consent provided prior to completion. Procedural remedies to reduce common method bias included assured anonymity, counterbalanced item order, and clear item wording ([Podsakoff et al., 2003](#)).

Data Analysis

Data were analyzed using PLS-SEM (SmartPLS 4.0) following a two-stage procedure ([Hair et al., 2014](#)). The measurement model was assessed for reliability and validity, followed by structural model evaluation using bootstrapping (5,000 resamples) ([Preacher & Hayes, 2008](#)) to test direct, indirect, and interaction effects. Effect sizes (f^2), explained variance (R^2), and predictive relevance (Q^2) were examined ([Diamantopoulos & Siguaw, 2006](#)). A full collinearity VIF assessment indicated no serious multicollinearity or common method variance concerns ($VIF < 3.3$).

Model quality was evaluated using multiple criteria, including coefficients of determination (R^2) to assess explained variance, effect sizes (f^2) to determine the relative impact of predictors following [Cohen \(2013\)](#) thresholds, and predictive relevance assessed via Stone-Geisser's Q^2 values, where values above zero indicate satisfactory predictive validity ([Stone, 1974](#)). (See [Table 2](#)).

Ethical Approval (Optional)

The study received approval from the Ethics Committee of X University (Approval Number: 123/KEPK/2024). All participants provided informed consent before participating in the study. For participants under 18, consent was obtained from parents or guardians. Confidentiality was strictly maintained, ensuring participants' data were anonymized and securely stored."

Table 1. Respondent Demographic Profile

Variable	Category	Frequency	Percentage
Gender	Male	131	43.7
	Female	169	56.3
Age (years)	22–25	48	16.0
	26–30	112	37.3
	31–35	83	27.7
	36–42	57	19.0
	> 42	10	3.3
Tenure (years)	< 3	72	24.0
	3–5	96	32.0
	6–10	89	29.7
	> 10	43	14.3
Role/Position	Frontline Service Staff	183	61.0
	Service Supervisor	68	22.7
	Service Manager	49	16.3
Industry	Banking / Digital Banking	122	40.7
	Fintech	91	30.3
	Hospitality / Tourism	87	29.0

Notes: N = 300, Tenure indicates the total number of years the respondent has worked in the current organization. Age distribution was limited to 22–42 years as per the sample criteria. Approximately 83.8% of respondents holding supervisory roles were aged between 36 and 42 years.

Table 2. Measurement Model Results

Common Model Results							
Construct	Items	Outer Range	Loading	Cronbach's α	CR	AVE	VIF Range Decision
HCS	6	0.764–0.803		0.874	0.875	0.614	1.75–1.98 Accepted
PEmp	12	0.674–0.773		0.914	0.915	0.515	1.67–2.10 Accepted
ER	5	0.763–0.812		0.791	0.792	0.615	1.52–1.71 Accepted
ASE	5	0.818–0.841		0.909	0.909	0.687	2.17–2.41 Accepted
SC	8	0.742–0.801		0.885	0.887	0.566	1.60–2.04 Accepted
OI	6	0.732–0.789		0.873	0.875	0.583	1.65–2.08 Accepted

Notes: Most indicator loadings exceeded 0.70; items with loadings between 0.67 and 0.70 were retained due to content validity and acceptable composite reliability and AVE values. All loadings were significant at $p < 0.001$. AVE > 0.50 indicates convergent validity. VIF < 3.3 indicates absence of multicollinearity. HCS is Human Capability System. PEMP is Psychological Empowerment. ER is Employee Resourcefulness. ASE is Adaptive Service Excellence. SC is Service Climate and OI is Organizational Innovativeness.

Result and Discussion

The hypothesized relationships were examined using Partial Least Squares Structural Equation Modeling (PLS-SEM). The analysis proceeded with assessment of the measurement model followed by evaluation of the structural model to test direct, indirect, and moderating effects (Manley et al., 2021).

Table 3 presents the descriptive statistics and correlations among study variables. All constructs exhibited acceptable internal consistency. The correlation patterns align with theoretical expectations, showing positive associations between the Human Capability System, psychological empowerment, employee resourcefulness, and adaptive service excellence.

The correlation patterns align with theoretical

expectations and provide preliminary support for the hypothesized relationships. The Human Capability System exhibited strong positive associations with Psychological Empowerment ($r = 0.62$, $p < 0.01$) and Employee Resourcefulness ($r = 0.59$, $p < 0.01$), reinforcing its role as a foundational driver of employee cognitive and behavioral capabilities (Amador-Hidalgo et al., 2021). These coefficients magnitudes fall within the range typically observed in organizational behavior research examining HR system effects on employee outcomes. Both mediating variables also showed robust correlations with Adaptive Service Excellence (Psychological Empowerment: $r = 0.67$, $p < 0.01$; Employee Resourcefulness: $r = 0.66$, $p < 0.01$), supporting their relevance as intermediary mechanisms linking capability systems to adaptive service performance.

Service Climate demonstrated moderate but significant correlations with the Human Capability System, Psychological Empowerment, and Employee

Resourcefulness ($r = 0.43\text{--}0.46$, $p < 0.01$), consistent with climate research emphasizing shared perceptions as contextual enablers of capability enactment (B. Schneider et al., 2017). In contrast, Organizational Innovativeness exhibited weaker associations with focal behavioral variables ($r = 0.29\text{--}0.32$, $p < 0.01$), suggesting a more distal relationship to individual-level adaptive behaviors. Among control variables, age and tenure showed weak but significant positive correlations with Human Capability System and Psychological Empowerment, while gender displayed no meaningful associations with any focal constructs. Collectively, the correlation matrix provides initial validation of the conceptual framework and justifies subsequent multivariate analyses to disentangle direct, indirect, and conditional effects within the proposed structural model.

Structural Model Results: Direct Effects and Hypothesis Testing

The structural model results are summarized in Table 4. The Human Capability System exhibited a significant positive effect on Adaptive Service Excellence. It also significantly predicted psychological empowerment and employee resourcefulness. Psychological empowerment and employee resourcefulness, in turn, showed significant positive effects on Adaptive Service Excellence.

The results provide strong support for the central role of the Human Capability System (HCS) in driving Adaptive Service Excellence (ASE) through both direct and indirect pathways. Hypothesis 1 was supported, as HCS exerted a significant positive effect on ASE ($\beta = 0.258$, $t = 7.026$, $p < 0.001$), indicating that organizational investments in capability development and learning agility translate directly into adaptive service behaviors. This finding aligns with dynamic capability perspectives that position human capital configurations as critical microfoundations of organizational adaptability (Teece, 2018), while the moderate effect size suggests the presence of additional explanatory mechanisms. Consistent with Hypotheses 2a and 2b, HCS significantly predicted Psychological Empowerment ($\beta = 0.264$, $t = 2.996$, $p = 0.003$) and Employee Resourcefulness ($\beta = 0.325$, $t = 3.171$, $p = 0.002$), supporting the argument that capability-enhancing practices foster both motivational states and behavioral capacities. These results resonate with self-determination theory, which emphasizes the role of organizational structures in satisfying basic psychological needs (Deci & Ryan, 2000) and extend prior research by demonstrating that investments in human capital development cultivate adaptive behavioral capabilities beyond formal role requirements (Tang, 2021).

Further analyses confirmed that both mediators play critical roles in translating capability systems into adaptive outcomes. Psychological Empowerment emerged as the strongest predictor of ASE ($\beta = 0.423$, $t = 11.297$, $p < 0.001$), underscoring its function as the most proximal psychological driver of adaptive service behaviors and corroborating meta-analytic evidence linking empowerment to proactive performance (Seibert et al., 2011). Employee Resourcefulness also showed a robust positive effect on ASE ($\beta = 0.340$, $t = 6.486$, $p < 0.001$), consistent with improvisation research highlighting behavioral flexibility in managing service uncertainty (Vera & Crossan, 2005). Regarding contextual contingencies, Hypotheses 3a and 3b were supported, as Service Climate significantly strengthened the effects of HCS on Psychological Empowerment ($\beta = 0.520$, $t = 6.072$, $p < 0.001$) and Employee Resourcefulness ($\beta = 0.364$, $t = 3.537$, $p < 0.001$), in line with climate strength theory (Bowen & Ostroff, 2004). In contrast, Hypothesis 4 was not

supported; Organizational Innovativeness did not moderate the Employee Resourcefulness–ASE relationship ($\beta = 0.012$, $t = 0.210$, $p = 0.834$), suggesting that innovation orientation does not meaningfully condition the enactment of resourceful behaviors into adaptive service outcomes. This null finding is examined further in the discussion.

Mediation Analysis: Indirect Effects

Mediation analysis revealed significant indirect effects of the Human Capability System on Adaptive Service Excellence through both psychological empowerment and employee resourcefulness (Table 5). As the direct HCS $\rightarrow$ ASE path remained significant alongside these indirect effects, the results indicate partial mediation, suggesting that capability systems influence adaptive service outcomes through both direct and indirect mechanisms (den Broeck et al., 2016).

This pattern implies that capability systems influence adaptive outcomes through multiple mechanisms both psychological (empowerment) and behavioral (resourcefulness) while also exerting direct effects potentially attributable to other unmeasured pathways such as social learning, organizational identity, or normative influences (Villalobos et al., 2020).

Moderation Analysis: Conditional Effects of Service Climate

Given the significant interaction terms identified in the structural model, we conducted simple slope analyses to interpret the nature of the moderating effects. Figure 2 displays the interaction between Human Capability System and Service Climate in predicting Psychological Empowerment.

The simple slope analysis indicates that Service Climate significantly conditions the relationship between the Human Capability System and Psychological Empowerment. When Service Climate is high, this relationship is substantially stronger ($\beta = 0.784$, $t = 8.92$, $p < 0.001$) than when Service Climate is low ($\beta = 0.256$, $t = 2.41$, $p = 0.016$), with the slope difference test confirming a significant moderation effect ($\Delta\beta = 0.528$, $p < 0.001$). This pattern suggests that capability-enhancing HR practices are most effective in fostering empowerment when embedded within organizational contexts characterized by shared service excellence norms and managerial support. Consistent with signaling theory and social information processing perspectives, a strong service climate provides clear cues that capability development initiatives represent genuine investments in employee growth and autonomy, thereby amplifying motivational effects. In contrast, weaker service climates may dilute these signals, leading employees to interpret capability systems as instrumental controls rather than empowering supports. This interpretation aligns with prior research emphasizing that the effectiveness of HR systems is contingent on the broader organizational context in which they are enacted (Gong & Ribiere, 2025).

Figure 3 illustrates the moderating effect of Service Climate on the relationship between Human Capability System and Employee Resourcefulness.

The simple slope analysis shows that Service Climate significantly strengthens the relationship between the Human Capability System and Employee Resourcefulness. This relationship is substantially stronger under high Service Climate conditions ($\beta = 0.689$, $t = 7.14$, $p < 0.001$) than under low Service Climate conditions ($\beta = 0.325$, $t = 3.02$, $p = 0.003$), with the slope difference test confirming a meaningful moderation effect ($\Delta\beta = 0.364$, $p < 0.001$). Although the association remains positive at lower levels of service climate, its reduced magnitude indicates that capability investments translate into resourceful behaviors more effectively when employees perceive consistent

organizational support for service excellence. In high service climate environments, employees are more likely to feel psychologically safe to experiment with novel service approaches, confident that resourceful initiatives will be valued. This interpretation aligns with research on psychological safety and improvisation, which shows that supportive organizational contexts encourage adaptive and creative behaviors (Y. Liu et al., 2023), and with evidence that service climates facilitate social learning processes through which employees' model resourceful behaviors observed among peers (Jang, 2023).

Effect Sizes and Model Explanatory Power

Beyond statistical significance, we evaluated the practical importance of relationships through effect size (f^2) and predictive relevance (Q^2) assessments. Table 6 summarizes these results.

Cohen's f^2 values indicate the relative contribution of each predictor to explained variance (Cohen, 2013), revealing that Psychological Empowerment exerts a large effect on Adaptive Service Excellence ($f^2 = 0.437$), thereby reinforcing theoretical arguments that intrinsic motivational states constitute the primary psychological mechanism enabling adaptive performance. In comparison, the Human Capability System ($f^2 = 0.161$) and Employee Resourcefulness ($f^2 = 0.142$) show medium-sized direct effects, while the Organizational Innovativeness $\times$ Employee Resourcefulness interaction exhibits a negligible effect ($f^2 = 0.000$), underscoring its lack of practical significance. Predictive relevance assessed via Stone-Geisser Q^2 values confirms strong model predictiveness, with Adaptive Service Excellence demonstrating high predictive relevance ($Q^2 = 0.573$) and both Psychological Empowerment ($Q^2 = 0.300$) and Employee Resourcefulness ($Q^2 = 0.275$) exhibiting moderate predictive validity (Stone, 1974). Consistently, the structural model explains substantial variance in key outcomes, with R^2 values of 0.621 for Adaptive Service Excellence, 0.438 for Psychological Empowerment, and 0.397 for Employee Resourcefulness, indicating robust explanatory power. These magnitudes compare favorably with prior organizational behavior research and exceed commonly accepted thresholds for exploratory models in applied psychology (Hair Jr, 2020), supporting the integrated framework's capacity to explain and predict adaptive service excellence.

This study examines how Human Capability Systems foster Adaptive Service Excellence in digital service organizations by elucidating the psychological and behavioral mechanisms underlying this process. Integrating Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory, the study tests a capability-motivation-behavior framework in which psychological empowerment and employee resourcefulness function as key mediators, while service climate and organizational innovativeness are examined as contextual contingencies. Overall, the findings provide strong support for the proposed model, while also revealing nuanced patterns that invite further theoretical reflection.

Interpretation of Key Findings

The findings demonstrate that the Human Capability System exerts both direct and indirect effects on Adaptive Service Excellence, confirming its role as a foundational dynamic capability in digitally intensive service contexts (Vargo & Lusch, 2016). The persistence of a significant direct HCS $\rightarrow$ ASE path alongside significant indirect effects through psychological empowerment and employee resourcefulness indicates partial mediation,

suggesting that capability systems operate through multiple complementary mechanisms rather than a single explanatory pathway (Zhang-Zhang et al., 2022).

Psychological empowerment emerges as the most influential proximal driver of adaptive service excellence (figure 4), underscoring the importance of employees' intrinsic motivational states in enabling adaptive service behaviors. This finding suggests that organizations seeking to enhance adaptive service performance should prioritize practices that strengthen employees' internalized sense of autonomy and competence, as these motivational states function as the most proximal drivers of discretionary adaptive behaviors (Huu, 2023). Employee resourcefulness provides a complementary behavioral pathway, translating capability investments into improvisational and problem-solving actions during frontline service encounters (Wang & Shao, 2024). The results indicate that investments in learning agility and technical competencies enable employees to engage in real-time problem solving and service customization, thereby translating capability systems into adaptive service excellence (Z. Liu et al., 2024; Smith & Watkins, 2024). The presence of both psychological and behavioral mediators supports a dual-pathway explanation of adaptive service excellence, wherein motivational ("wanting to") and capability-based ("able to") mechanisms jointly shape adaptive performance outcomes (D. Jiang et al., 2022; Shet, 2024). Together, these results suggest that adaptive service excellence is jointly shaped by motivational and agentic processes activated by organizational capability systems (Quratulain et al., 2020; Sürücü et al., 2019).

The moderating role of Service Climate provides important insights into how Human Capability Systems are translated into adaptive service outcomes. The interaction effects indicate that service climate significantly amplifies the positive influence of Human Capability Systems on both Psychological Empowerment and Employee Resourcefulness, as shared perceptions emphasizing service excellence, customer orientation, and managerial support lead employees to interpret capability development initiatives as genuine investments in their professional growth rather than as instrumental controls (Schneider et al., 2017). The non-significant moderating effect of organizational innovativeness on the employee resourcefulness-adaptive service excellence relationship suggests that the conversion of resourceful behavior into adaptive outcomes depends more strongly on proximal contextual factors than on distal strategic orientations. While organizational innovativeness may foster experimentation and learning at higher organizational levels, adaptive service excellence is primarily enacted within frontline encounters, where immediate supervisory support, service norms, and situational demands exert greater influence (Lin & Yi, 2023). Viewed through the integrated theoretical lens of Dynamic Capability Theory, Self-Determination Theory, and Service-Dominant Logic, these findings clarify the complementary roles of capability infrastructure, motivational mechanisms, and value enactment processes, highlighting that adaptive service excellence emerges when organizational capability systems activate employee motivation and are enacted through real-time value co-creation in service interactions.

Comparison with Previous Studies

These findings extend prior research by demonstrating that human-centered capability systems influence adaptive service performance through both motivational and behavioral microfoundations. Rather than conceptualizing adaptability as a function of isolated practices or episodic innovation, the results highlight the importance of aligned

capability infrastructure, employee empowerment, and contextual support in sustaining adaptive service excellence over time (Gerschberger et al., 2023; Li & Lin, 2023; Song et al., 2025). This pattern strongly supports Self-Determination Theory's proposition that individuals achieve optimal functioning when organizational structures satisfy their basic psychological needs for autonomy, competence, and relatedness (Deci & Ryan, 2000; Gagné & Deci, 2005).

(2000; Gagné & Deci, 2005).

This finding also extends prior research (Cheshin et al., 2018) by demonstrating that in dynamic service contexts characterized by customer heterogeneity and environmental turbulence, psychological empowerment functions as the critical microfoundation through which structural capabilities translate into behavioral outcomes. Meanwhile, this finding resonates with recent work on

Construct	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.56	0.50	–								
2. Age	31.91	5.87	0.06	–							
3. Tenure	5.70	3.90	0.08	0.42**	–						
4. HCS	3.84	0.54	0.03	0.27**	0.19**	(0.87)					
5. PEmp	3.96	0.51	0.04	0.22**	0.16*	0.62**	(0.91)				
6. ER	3.91	0.49	0.02	0.25**	0.21**	0.59**	0.61**	(0.79)			
7. ASE	4.05	0.52	0.05	0.23**	0.19**	0.54**	0.67**	0.66**	(0.91)		
8. SC	3.87	0.55	0.07	0.21**	0.17*	0.43**	0.46**	0.45**	0.44**	(0.89)	
9. OI	3.79	0.57	0.01	0.18*	0.14	0.30**	0.31**	0.29**	0.32**	0.38**	(0.87)

Notes: n = 300; Cronbach's α reliabilities are provided in parentheses along the diagonal. $p < 0.05$; ** $p < 0.01$ (two-tailed).

Gender coded as 1 = male, 2 = female; Age and Tenure measured in years.

Table 4. Path Coefficients and Hypothesis Testing Results

Hypothesis	Path	β	t-value	p-value	Result
H1	HCS $\rightarrow$ ASE	0.258	7.026	0.000	Supported
H2a	HCS $\rightarrow$ PEmp	0.264	2.996	0.003	Supported
H2b	HCS $\rightarrow$ ER	0.325	3.171	0.002	Supported
H2c	PEmp $\rightarrow$ ASE	0.423	11.297	0.000	Supported
H2d	ER $\rightarrow$ ASE	0.340	6.486	0.000	Supported
H3a	HCS $\times$ SC $\rightarrow$ PEmp	0.520	6.072	0.000	Supported
H3b	HCS $\times$ SC $\rightarrow$ ER	0.364	3.537	0.000	Supported
H4	ER $\times$ OI $\rightarrow$ ASE	0.012	0.210	0.834	Not supported

Notes: All path coefficients (β) are standardized estimates. Significance assessed via bootstrapping (5,000 subsamples; two-tailed test, $p < .05$)

Table 5. Mediation and Moderation Analysis

Indirect Path	β	t-value	p-value	Effect Type	Result
HCS $\rightarrow$ PEmp $\rightarrow$ ASE	0.111	2.950	0.003	Mediation	Supported
HCS $\rightarrow$ ER $\rightarrow$ ASE	0.110	2.782	0.005	Mediation	Supported
HCS $\times$ SC $\rightarrow$ PEmp $\rightarrow$ ASE	0.220	5.129	0.000	Moderated Mediation	Supported
HCS $\times$ SC $\rightarrow$ ER $\rightarrow$ ASE	0.124	3.152	0.002	Moderated Mediation	Supported
ER $\times$ OI $\rightarrow$ ASE	0.012	0.210	0.834	Moderation	Not supported

Notes: All indirect effects are bias-corrected and significant at $p < .05$ (5,000 bootstrap subsamples).

Table 6. Effect Size and Predictive Relevance Statistics

Dependent Variable	Main Predictor	f^2	Effect Strength	Q^2	Predictive Relevance
Adaptive Service Excellence (ASE)	PEmp	0.437	Large	0.573	Strong
Adaptive Service Excellence (ASE)	HCS	0.161	Medium	–	–
Adaptive Service Excellence (ASE)	ER	0.142	Medium	–	–
Adaptive Service Excellence (ASE)	ER $\times$ OI	0.000	None	–	–
Employee Resourcefulness (ER)	HCS, HCS $\times$ SC	0.029–0.037	Small	0.275	Moderate
Psychological Empowerment (PEmp)	HCS, HCS $\times$ SC	0.026–0.101	Small–Medium	0.300	Moderate

Notes: Effect size (f^2) thresholds: 0.02 (small), 0.15 (medium), 0.35 (large). Predictive relevance assessed using blindfolding ($Q^2 > 0$ indicates valid predictive power).

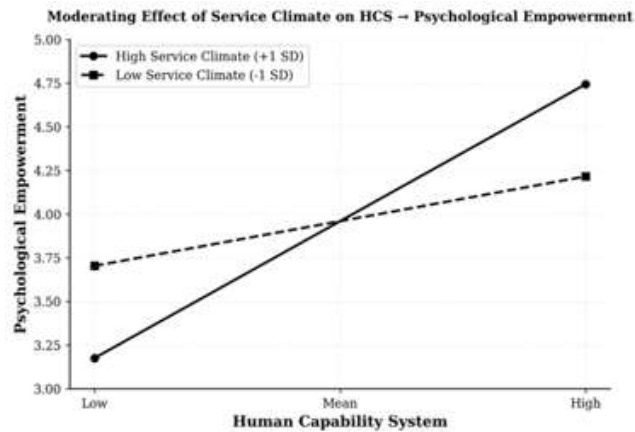


Figure 2. Moderation Effect of Service Climate on HCS → Psychological Empowerment

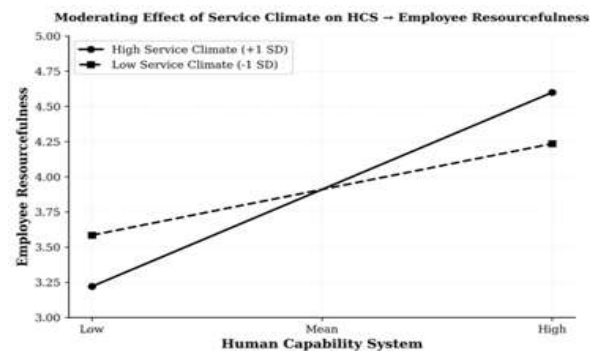


Figure 3. Moderation Effect of Service Climate on HCS → Employee Resourcefulness

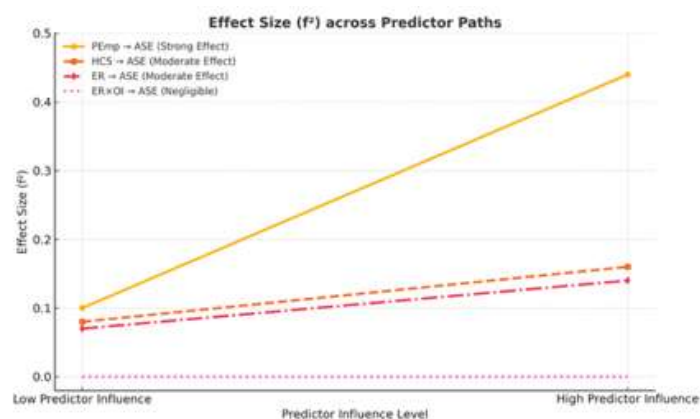


Figure 4. Effect Size (f^2) across Predictor Paths

employee adaptability emphasizing that behavioral repertoires extending beyond formal role requirements become increasingly valuable as service environments grow more dynamic and unpredictable (Ma et al., 2025). These patterns align with signaling theory and climate strength perspectives, which posit that employees interpret HR practices through the lens of contextual cues regarding organizational priorities and values (Bowen & Ostroff, 2004).

Limitations and Cautions

Despite its theoretical and empirical contributions, this study has several methodological and conceptual limitations that warrant caution in interpretation. First, the cross-sectional design restricts causal inference, as the observed relationships among empowerment, resourcefulness, adaptability, and adaptive service excellence reflect correlational rather than temporal

dynamics; longitudinal designs are needed to capture the evolving nature of psychological empowerment and capability development. Second, reliance on self-reported data from frontline employees raises the possibility of common method variance and perceptual bias, as self-assessments of psychological states and service behaviors may be influenced by social desirability or self-enhancement tendencies, despite the use of procedural controls. Third, the empirical context frontline employees in digitally intensive service sectors such as banking, fintech, and hospitality limits generalizability, as these environments are characterized by high customer contact, emotional labor, and rapid digitalization that may not extend to low-contact or asset-intensive industries. Fourth, the non-significant moderating effect of organizational innovativeness points to a potential construct alignment issue, as the measure emphasized strategic and structural innovation orientation rather than employees' perceived

latitude for experimentation and creativity, creating a mismatch between macro-level innovation architecture and micro-level behavioral readiness. Finally, while the integration of Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory enhances coherence, it also narrows the theoretical lens, suggesting that alternative perspectives may reveal additional explanatory mechanisms. Collectively, these limitations reflect trade-offs between analytical rigor, contextual specificity, and theoretical integration and should be considered when assessing the generalizability and explanatory scope of the findings.

Recommendations for Future Research

Building on these limitations, future research can advance the study of adaptive service excellence through several methodological and theoretical extensions. Longitudinal, time-lagged, or panel designs are needed to capture the dynamic evolution of empowerment, human capability systems, and adaptive service behaviors, enabling tests of causal ordering and developmental trajectories beyond cross-sectional designs (H. Jiang et al., 2023; Katou, 2022). To address single-source bias, multi-source and multi-method approaches integrating evaluations from supervisors, peers, and customers, as well as objective performance indicators such as customer retention, service recovery outcomes, and digital interaction metrics, would enhance measurement robustness and external validity (Z. Ali et al., 2017). Cross-sectoral and cross-national comparative studies would further clarify the boundary conditions of the proposed model and assess whether empowerment–resourcefulness mechanisms operate consistently across institutional and cultural contexts (Ki & Kim, 2024; van der Wal et al., 2021). In addition, refining the conceptualization of organizational innovativeness by distinguishing structural innovation orientation from behavioral innovation climate and applying multilevel modeling would help disentangle top-down strategic signals from bottom-up employee innovation enactment and psychological safety (Mubarak & Petraite, 2020; S. Xu et al., 2024). From a theoretical standpoint, incorporating complementary frameworks such as Affective Events Theory or the Job Demands–Resources model may further enrich understanding by capturing how affective dynamics shape adaptive service behaviors in real time, particularly in high-contact service environments.

Conclusion

Drawing on Dynamic Capability Theory, Service-Dominant Logic, and Self-Determination Theory, this study examined how Human Capability Systems (HCS) drive Adaptive Service Excellence (ASE) through psychological empowerment and employee resourcefulness, while considering the moderating roles of service climate and organizational innovativeness. The findings show that psychological empowerment and employee resourcefulness partially mediate the relationship between HCS and ASE, indicating that adaptive service excellence is fundamentally human-driven and shaped by employees' autonomy, competence, and behavioral capacity. In addition, service climate strengthens the effects of HCS on both empowerment and resourcefulness, underscoring the importance of supportive service environments, whereas

organizational innovativeness does not significantly moderate the employee resourcefulness–ASE relationship, suggesting that innovation orientation alone is insufficient without psychological readiness. These results extend the microfoundations of dynamic capability theory by demonstrating that adaptability in digital service contexts emerges from the alignment of human capability systems, motivational mechanisms, and contextual climates.

Despite these contributions, the study is subject to limitations related to its cross-sectional design, reliance on single-source self-reported data, and focus on digital service-intensive sectors, which may constrain causal inference and generalizability. Future research should employ longitudinal and multi-source designs, test the model across diverse sectors and institutional contexts, refine the multilevel conceptualization of innovation climate, and integrate complementary theoretical perspectives to further advance understanding of adaptive service excellence.

Author contributions

Deri Prayudi conceptualized the study, developed the research framework, designed the methodology, conducted the data analysis, and led the manuscript writing. Ratih Hurriyati contributed to the theoretical refinement, provided critical feedback on the research design and analytical interpretation, and substantively reviewed and improved the manuscript for intellectual content. Puspo Dewi Dirgantari supported the empirical validation process, assisted in data interpretation and consistency checking, and contributed to revising the manuscript for coherence and academic rigor. All authors have read and approved the final version of the manuscript.

Funding

This research received no external funding. The study was fully self-funded by the authors, and no funding agency had any role in the study design, data collection, analysis, interpretation of the results, or the preparation of the manuscript.

Acknowledgements

The authors thank employees from banking, fintech, and hospitality organizations in Indonesia for their participation, and Universitas Pendidikan Indonesia for institutional support. Appreciation is also extended to colleagues and peers for constructive feedback that improved this study.

Conflict of interest

The authors declare that there are no financial, personal, or professional relationships that could be construed as having influenced the objectivity, integrity, or outcomes of this research.

References

- Al Jabri, M. A., Shaloh, S., Shakhoor, N., Haddoud, M. Y., & Obeidat, B. Y. (2024). The impact of dynamic capabilities on enterprise agility: The intervening roles of digital transformation and IT alignment. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(2), 100266. <https://doi.org/10.1016/j.joitmc.2024.100266>
- Ali, A., Tariq, H., & Abbas, A. (2025). Leading together, depleting apart: A moderated mediation model of shared leadership and creative service performance. *Acta Psychologica*, 261. <https://doi.org/10.1016/j.actpsy.2025.105804>
- Ali, Z., Sun, H., & Ali, M. (2017). The Impact of Managerial and Adaptive Capabilities to Stimulate Organizational Innovation in SMEs: A Complementary PLS-SEM Approach. *Sustainability*, 9(12), 2157. <https://doi.org/10.3390/su9122157>
- Amador-Hidalgo, L., Brañas-Garza, P., Espín, A. M., García-Muñoz, T., & Hernández-Román, A. (2021). Cognitive abilities and risk-taking: Errors, not preferences. *European Economic Review*, 134, 103694. <https://doi.org/10.1016/j.euroecorev.2021.103694>
- Anderson, L., Ostrom, A. L., Corus, C., Fisk, R. P., Gallan, A. S., Giraldo, M., Mende, M., Mulder, M., Rayburn, S. W., Rosenbaum, M. S., Shirahada, K., & Williams, J. D. (2013). Transformative service research: An agenda for the future. *Journal of Business Research*, 66(8), 1203–1210. <https://doi.org/10.1016/j.jbusres.2012.08.013>
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-Performance Linkages: The Role of the “Strength” of the HRM System. *Academy of Management Review*, 29(2), 203–221. <https://doi.org/10.5465/amr.2004.12736076>
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515–524. [https://doi.org/10.1016/S0019-8501\(01\)00203-6](https://doi.org/10.1016/S0019-8501(01)00203-6)
- Cheshin, A., Amit, A., & van Kleef, G. A. (2018). The interpersonal effects of emotion intensity in customer service: Perceived appropriateness and authenticity of attendants’ emotional displays shape customer trust and satisfaction. *Organizational Behavior and Human Decision Processes*, 144, 97–111. <https://doi.org/10.1016/j.obhdp.2017.10.002>
- Chou, C. Y., Shen, Y.-C., Wu, P.-H., & Lin, H.-Y. (2022). Employee perceived meaning of work and service adaptive behavior: a psychological resourcefulness perspective. *Service Business*, 16(4), 1035–1063. <https://doi.org/10.1007/s11628-022-00505-9>
- Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203771587>
- Dash, G., Kiefer, K., & Paul, J. (2021). Marketing-to-Millennials: Marketing 4.0, customer satisfaction and purchase intention. *Journal of Business Research*, 122, 608–620. <https://doi.org/10.1016/j.jbusres.2020.10.016>
- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A Review of Self-Determination Theory’s Basic Psychological Needs at Work. *Journal of Management*, 42(5), 1195–1229. <https://doi.org/10.1177/0149206316632058>
- Diamantopoulos, A., & Siguaw, J. A. (2006). Formative Versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration. *British Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- Dougherty, D. (2018). Managers Fail to Innovate and Academics Fail to Explain How. *Management and Organization Review*, 14(1), 229–239. <https://doi.org/10.1017/mor.2018.4>
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>
- Gao, J., & Liu, Y. (2022). The Influence of Internet Usage on Gender Division of Labour Bias: Evidence from Chinese General Social Survey Data. *Human Behavior and Emerging Technologies*, 2022, 6948934. <https://doi.org/10.1155/2022/6948934>
- Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. J. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management*, 77, 102777. <https://doi.org/10.1016/j.jinfomgt.2024.102777>
- Gerschberger, M., Ellis, S. C., & Gerschberger, M. (2023). Linking employee attributes and organizational resilience: An empirically driven model. *Journal of Business Logistics*, 44(3), 407–437. <https://doi.org/10.1111/jbl.12337>
- Gong, C., & Ribiere, V. (2025). Understanding the role of organizational agility in the context of digital transformation: an integrative literature review. *VINE Journal of Information and Knowledge Management Systems*, 55(2), 351–378. <https://doi.org/10.1108/VJKMS-09-2022-0312>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equations modeling (PLS-SEM)*. SAGE.
- Hair Jr, J. F. (2020). Next-generation prediction metrics for composite-based PLS-SEM. *Industrial Management & Data Systems*, 121(1), 5–11. <https://doi.org/10.1108/IMDS-08-2020-0505>
- Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2011). The mediating role of organizational job embeddedness in the LMX-outcomes relationships. *The Leadership Quarterly*, 22(2), 271–281. <https://doi.org/10.1016/j.leaqua.2011.02.003>
- He, Z., Huang, H., Choi, H., & Bilgihan, A. (2023). Building organizational resilience with digital transformation. *Journal of Service Management*, 34(1), 147–171. <https://doi.org/10.1108/JOSM-06-2021-0216>
- Huu, P. T. (2023). Impact of employee digital competence on the relationship between digital autonomy and innovative work behavior: a systematic review. *Artificial Intelligence Review*, 1–30. <https://doi.org/10.1007/s10462-023-10492-6>
- Jaakkola, E., Meiren, T., Witell, L., Edvardsson, B., Schäfer, A., Reynoso, J., Sebastiani, R., & Weitzner, D. (2017). Does one size fit all? New service development across different types of services. *Journal of Service Management*, 28(2), 329–347. <https://doi.org/10.1108/JOSM-11-2015-0370>
- Jang, Y. (2023). Anthropomorphism, perceived learning for creation, and growth creative mindset as predictors of acceptance toward artificial intelligence creativity. *Social Behavior and Personality: An International Journal*. <https://doi.org/10.2224/sbp.12536>
- Jiang, D., Chen, Z., Liu, T.-W., Zhu, H., Wang, S., & Chen, Q. (2022). Individual Creativity in Digital Transformation Enterprises: Knowledge and Ability, Which Is More Important? *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.734941>
- Jiang, H., Siponen, M., Jiang, Z., & Tsohou, A. (2023). The Impacts of Internet Monitoring on Employees’ Cyberloafing and Organizational Citizenship Behavior: A Longitudinal Field Quasi-Experiment. *Information Systems Research*, 35(3), 1175–1194. <https://doi.org/10.1287/isre.2020.0216>
- Jiang, K., & Messersmith, J. (2018). On the shoulders of giants: a meta-review of strategic human resource management. *The International Journal of Human Resource Management*, 29(1), 6–33. <https://doi.org/10.1080/09585192.2017.1384930>
- Jung, J. H., Yoo, J., Arnold, T. J., & Ryu, S. (2023). The Interactive Influence of Frontline Employee Motivational Orientation and Service Climate/Strength Upon Employee Need Satisfaction and Performance. *Journal of Service Research*, 27(4), 617–635. <https://doi.org/10.1177/10946705231190012>
- Katou, A. A. (2022). Human resources flexibility as a mediating mechanism between high-performance work systems and organizational performance: a multilevel quasi-longitudinal study. *EuroMed Journal of Business*, 17(2), 174–192. <https://doi.org/10.1108/EMJB-11-2020-0120>
- Khuzwayo, S. L., Kanyangale, M., & Tefera, O. (2020). Challenges of hospitable service delivery: The case of human settlements services at a municipality in South Africa. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1–24. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85078315240&partnerID=40&md5=e664ee3c34c6844fde6d836ec413f04>
- Ki, N., & Kim, G. J. (2024). Why Public Service Motivated Government Employees Experience Varying Job Satisfaction Levels Across Countries: A Meta-analysis Emphasizing Cultural Dimensions. *Public Performance & Management Review*, 47(4), 1014–1045. <https://doi.org/10.1080/15309576.2024.2354891>
- Li, X., & Lin, H. (2023). How to leverage flexibility-oriented HRM systems to build organizational resilience in the digital era: the mediating role of intellectual capital. *Journal of Intellectual Capital*, 25(1), 1–22. <https://doi.org/10.1108/JIC-03-2023-0038>
- Lin, Q., & Yi, L. (2023). Survival of the fittest: the multiple paths of entrepreneurial leadership driving adaptive innovation in uncertain environment. *European Journal of Innovation Management*, 26(4), 1150–1167. <https://doi.org/10.1108/EJIM-10-2021-0488>
- Liu, Y., Zhang, X., Xi, M., Liu, S., & Meng, X. (2023). Organizational environments, work characteristics and employee innovative behavior in the digital age: an fsQCA approach. *Chinese Management Studies*. <https://doi.org/10.1108/CMS-04-2022-0125>
- Liu, Z., Chen, X., & Ni, Y. (2024). Good tools are essential to do the job: A study of impact of digital competencies on innovative work behavior of Chinese remote work employees. *Information Development*, 02666669241264748. <https://doi.org/10.1177/02666669241264748>
- Lusch, R. F., & Nambisan, S. (2015). Service innovation: a service-dominant logic perspective. *MIS Quarterly*, 39(1), 155–176. <https://doi.org/10.25300/MISQ/2015/39.1.07>
- Ma, L., Peng, Y., Xin, Z., & Hao, F. (2025). How enterprise social media usage contributes to employee resilience: moderating role of individual adaptability. *Behaviour & Information Technology*, 44(1), 131–149. <https://doi.org/10.1080/0144929X.2024.2312452>
- Manapajon, V., Chungviwatanant, S., & Tayko, P. R. M. (2017). Organizational development intervention on service climate and psychological meaningfulness to improve employee engagement: an action research in a private family hotel samui, thailand. *ABAC Journal*, 37(2), 75–91. <http://www.assumptionjournal.au.edu/index.php/abacjournal/article/download/3044/1962>
- Manley, S. C., Hair, J. F., Williams, R. I., & McDowell, W. C. (2021). Essential new PLS-SEM analysis methods for your entrepreneurship analytical toolbox. *International Entrepreneurship and Management Journal*, <https://journal.idscipub.com/index.php/commerciurn>

- 17(4), 1805–1825. <https://doi.org/10.1007/s11365-020-00687-6>
- Margeviča-Grinberga, I., & Šmitić, A. (2021). Self-assessment of the digital skills of career education specialists during the provision of remote services. *World Journal on Educational Technology: Current Issues*, 13(4), 1061–1072. <https://doi.org/10.18844/wjet.v13i4.6296>
- Mubarak, M. F., & Petraitė, M. (2020). Industry 4.0 technologies, digital trust and technological orientation: What matters in open innovation? *Technological Forecasting and Social Change*, 161, 120332. <https://doi.org/10.1016/j.techfore.2020.120332>
- Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital innovation management: reinventing innovation management research in a digital world. *MIS Quarterly*, 41(1), 223–238. <https://doi.org/10.25300/MISQ/2017/41:1.03>
- Ostrom, A. L., Parasuraman, A., Bowen, D. E., Patricio, L., & Voss, C. A. (2015). Service Research Priorities in a Rapidly Changing Context. *Journal of Service Research*, 18(2), 127–159. <https://doi.org/10.1177/1094670515576315>
- Patricio, L., Gustafsson, A., & Fisk, R. (2017). Upframing Service Design and Innovation for Research Impact. *Journal of Service Research*, 21(1), 3–16. <https://doi.org/10.1177/1094670517746780>
- Pigola, A., Paiva, E. M. de, & Costa, P. R. da. (2023). Innovative behaviors: A survey about their associated effects in a dynamic environment. *Review of Business Management*. <https://doi.org/10.7819/rbgn.v25i2.4218>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Quratulain, S., Al-Hawari, M. A., & Bani-Melhem, S. (2020). Perceived organizational customer orientation and frontline employees' innovative behaviors: exploring the role of empowerment and supervisory fairness. *European Journal of Innovation Management*, 24(2), 533–552. <https://doi.org/10.1108/EJIM-08-2019-0233>
- Rank, J., Pace, V. L., & Frese, M. (2004). Three Avenues for Future Research on Creativity, Innovation, and Initiative. *Applied Psychology*, 53(4), 518–528. <https://doi.org/10.1111/j.1464-0597.2004.00185.x>
- Rigby, C. S., & Ryan, R. M. (2018). Self-Determination Theory in Human Resource Development: New Directions and Practical Considerations. *Advances in Developing Human Resources*, 20(2), 133–147. <https://doi.org/10.1177/1523422318756954>
- Salmela, H., Baiyere, A., Tapanainen, T., & Galliers, R. D. (2022). Digital Agility: Conceptualizing Agility for the Digital Era. *Journal of the Association for Information Systems*, 23(5), 1080–1101. <https://doi.org/10.17705/1jais.00767>
- Schneider, B., Ehrhart, Mark G., & Macey, William H. (2017). Organizational climate research: achievements and the road ahead. In N. M. Ashkanasy, C. P. M. Wilderom, & M. F. Peterson (Eds.), *The Handbook of Organizational Culture and Climate* (2nd ed., pp. 29–49). Sage Publications. <https://doi.org/10.4135/9781483307961.n3>
- Schneider, B. W., Susan, S. P., & Michelle, C. (1998). Linking service climate and customer perceptions of service quality: Tests of a causal model. *Journal of Applied Psychology*, 83(2), 150–163. <https://doi.org/10.1037/0021-9010.83.2.150>
- Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of Applied Psychology*, 96(5), 981–1003. <https://doi.org/10.1037/a0022676>
- Shet, S. V. (2024). A VUCA-ready workforce: exploring employee competencies and learning and development implications. *Personnel Review*, 53(3), 674–703. <https://doi.org/10.1108/PR-10-2023-0873>
- Smith, B. A., & Watkins, K. E. (2024). Measuring learning agility: a review and critique of learning agility measures. *Personnel Review*, 53(3), 704–720. <https://doi.org/10.1108/PR-10-2023-0886>
- Song, T., Sun, L., Wang, J., & Li, C. (2025). Team internal social capital and entrepreneurial learning: a dual-path exploration in new venture teams. *Humanities and Social Sciences Communications*, 12(1), 33. <https://doi.org/10.1057/s41599-024-04252-2>
- Spreitzer, G. M. (1995). Psychological Empowerment in the Workplace: Dimensions, Measurement, and Validation. *Academy of Management Journal*, 38(5), 1442–1465. <https://doi.org/10.5465/256865>
- Stone, M. (1974). Cross-Validatory Choice and Assessment of Statistical Predictions. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 36(2), 111–133. <https://doi.org/10.1111/j.2517-6161.1974.tb00994.x>
- Sürücü, Ö., Öztürk, Y., Okumus, F., & Bilgihan, A. (2019). Brand awareness, image, physical quality and employee behavior as building blocks of customer-based brand equity: Consequences in the hotel context. *Journal of Hospitality and Tourism Management*, 40, 114–124. <https://doi.org/10.1016/j.jhtm.2019.07.002>
- Tang, N. (2021). Cognitive abilities, self-efficacy, and financial behavior. *Journal of Economic Psychology*, 87, 102447. <https://doi.org/10.1016/j.joep.2021.102447>
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Tung, F.-C. (2016). Does transformational, ambidextrous, transactional leadership promote employee creativity? Mediating effects of empowerment and promotion focus. *International Journal of Manpower*, 37, 1250–1263. <https://doi.org/10.1108/IJM-09-2014-0177>
- van der Wal, Z., van den Berg, C., & Haque, M. S. (2021). Comparative Public Administration in a Globalized World: Moving Beyond Standard Assumptions Toward Increased Understanding. *Public Administration Review*, 81(2), 295–298. <https://doi.org/10.1111/puar.13373>
- Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: an extension and update of service-dominant logic. *Journal of the Academy of Marketing Science*, 44(1), 5–23. <https://doi.org/10.1007/s11747-015-0456-3>
- Vera, D., & Crossan, M. (2005). Improvisation and Innovative Performance in Teams. *Organization Science*, 16(3), 203–224. <https://doi.org/10.1287/orsc.1050.0126>
- Villalobos, J., Chan, L. B., Chen, C., & Donaldson, S. I. (2020). Exploring adaptability and proactivity across cultural contexts. *International Journal of Cross Cultural Management*, 20(3), 345–360. <https://doi.org/10.1177/1470595820971011>
- Wang, Q., & Shao, Z. (2024). Linking transformational leadership and digital creativity from the lens of social cognitive theory. *Industrial Management & Data Systems*, 124, 2312–2332. <https://doi.org/10.1108/IJMD-07-2023-0444>
- Wright, P. M., & Snell, S. A. (1998). Toward a Unifying Framework for Exploring Fit and Flexibility in Strategic Human Resource Management. *The Academy of Management Review*, 23(4), 756–772. <https://doi.org/10.2307/259061>
- Wu, W., Zhang, A., van Klinken, R. D., Schrobback, P., & Muller, J. M. (2021). Consumer Trust in Food and the Food System: A Critical Review. *Foods*, 10(10), 2490. <https://doi.org/10.3390/foods10102490>
- Xie, L., Guan, X., & Huan, T. C. (2019). A case study of hotel frontline employees' customer need knowledge relating to value co-creation. *Journal of Hospitality and Tourism Management*, 39, 76–86. <https://doi.org/10.1016/j.jhtm.2019.02.002>
- Xu, S., Yaacob, Z., & Cao, D. (2024). How transformational leadership promotes employee creativity within the context of environmental dynamism: a multilevel perspective. *International Journal of Organization Theory & Behavior*. <https://doi.org/10.1108/IJOTB-06-2023-0117>
- Xu, Y., Liu, D., & Tang, D.-S. (2022). Decent work and innovative work behaviour: Mediating roles of work engagement, intrinsic motivation and job self-efficacy. *Creativity and Innovation Management*, 31(1), 49–63. <https://doi.org/10.1111/caim.12480>
- Zhang-Zhang, Y., Rohlf, S., & Varma, A. (2022). Strategic people management in contemporary highly dynamic VUCA contexts: A knowledge worker perspective. *Journal of Business Research*, 144, 587–598. <https://doi.org/10.1016/j.jbusres.2021.12.069>