

## **The Influence of Polychronicity on Job Performance and Work Engagement: The Role of Supervisory Organizational Embodiment and Psychological Ownership**

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### **Abstract**

Although the tourism industry plays a vital role in the global economy and contributes significantly to foreign exchange earnings, it faces various operational challenges. This underscores the need to explore factors that enhance workplace productivity. This study examines the impact of polychronicity on job performance and work engagement among tourism employees. Additionally, the study investigates the mediating role of the supervisor's organizational embodiment and the moderating effect of psychological ownership. Data were collected from 733 employees working in private tourism establishments in Petra, Jordan, using a structured questionnaire, and analyzed with AMOS-24. The results indicate that polychronicity positively influences both job performance and work engagement. Supervisor's organizational embodiment was found to significantly mediate the relationship between polychronicity and employee outcomes, while psychological ownership strengthens these relationships. By highlighting key employee behavioral outcomes, this research provides practical insights for tourism and hospitality managers to enhance engagement and performance. Moreover, it offers a reference for scholars studying polychronic behavior in organizational contexts.

**Keywords:** Work engagement, Polychronicity, Supervisor's organizational embodiment, Psychological ownership, Job performance

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### **Introduction**

Globalization and rapid changes in the business environment have significantly intensified the demands within the hospitality industry, where employees are increasingly expected to perform tasks efficiently and effectively [1, 2]. This has created challenges in attracting and retaining skilled employees, as hotels require staff who can adapt to diverse roles and manage multiple responsibilities simultaneously [3-5]. At the same time, tourists have become more informed and discerning, expecting high-quality services and readily claiming compensation when standards are not met [6, 7]. Enhancing service quality through employee empowerment is therefore critical, as it directly contributes to better performance outcomes [8, 9]. Labor shortages and the pivotal role of frontline employees further underline the need for engagement, as these employees are the first point of contact with customers and significantly impact service delivery [5, 10, 11]. Prior studies have linked high work engagement to superior job performance [12-14]. One factor that can foster both engagement and performance is **polychronicity**, which refers to an individual's preference for handling multiple tasks concurrently [15-17]. Yet, empirical research examining polychronicity in tourism contexts, particularly in Petra, Jordan, is limited.

Petra, a major tourist hub in Jordan, is internationally recognized for its Nabataean heritage and has been designated as one of the "New Seven Wonders of the World" [18, 19]. Tourism in Petra contributed nearly one-fifth of Jordan's GDP in 2016,

emphasizing the city's economic significance and the critical need for effective management of its hospitality workforce [20, 21]. However, employees in local hotels often face insufficient technical support, lack of training, and are tasked with multiple responsibilities without adequate incentives or well-being programs [22, 23].

This study seeks to examine how polychronicity influences work engagement and job performance among tourism employees, while investigating the mediating role of the supervisor's organizational embodiment and the moderating effect of psychological ownership. By addressing these factors, the study aims to bridge gaps in the existing literature and provide practical insights for managing employee outcomes in the tourism sector. The research questions guiding this study are:

1. Does polychronicity enhance employee job performance?
2. Does polychronicity increase work engagement?
3. Does psychological ownership moderate the effect of polychronicity on job performance and work engagement?
4. Does the supervisor's organizational embodiment mediate the relationship between polychronicity and employee outcomes?

## Literature Review and Hypotheses Development

### *Person–organization fit (P-O Fit) theory*

Person–Organization Fit (P-O Fit) refers to the degree of alignment between an individual's characteristics and the values, culture, or requirements of an organization [24]. This fit may occur when the organization fulfills the needs of the individual, the individual fulfills organizational needs, or both parties share similar core attributes. Individuals whose traits resonate with their workplace are more likely to display positive attitudes and stronger engagement toward their work [25]. Achieving P-O fit is particularly critical in competitive contexts, where organizations require employees who are adaptable, flexible, and committed to sustain high performance [26]. Additionally, P-O fit facilitates optimal use of situational job resources and has been shown to enhance outcomes such as job satisfaction, contextual performance, perceived value contribution, and commitment in voluntary organizations [25, 27, 28].

Research also indicates that polychronic employees—those who prefer handling multiple tasks simultaneously—tend to experience better alignment with roles demanding multitasking, suggesting a strong P-O fit with such positions [17, 29]. Employees exhibiting high polychronicity generally achieve superior performance outcomes and demonstrate lower turnover intentions, highlighting the importance of matching individual temporal preferences with job demands [30, 31].

### *Hypotheses development and conceptual model*

#### *Polychronicity and work engagement*

Polychronicity describes a tendency to engage in multiple activities at the same time or to switch efficiently between tasks [16, 17]. Individuals with high polychronic tendencies are often more resilient under stress, manage competing demands effectively, and show lower attrition rates [32]. In the tourism and hospitality sectors, employees with strong polychronic tendencies are better equipped to handle diverse responsibilities simultaneously, leading to more effective performance outcomes [33, 34].

Polychronic employees are characterized not merely by performing multiple tasks but by actively seeking to coordinate and execute them efficiently, often navigating interruptions without compromising task completion [35, 36]. This capacity promotes higher engagement, as employees feel more involved and invested in their roles [37, 38].

Work engagement, defined as the degree of psychological and emotional investment in one's job, has been widely studied across organizational behavior, sociology, and marketing contexts [39-41]. In hospitality settings, engaged employees contribute to higher service quality and customer satisfaction [42]. Empirical evidence shows that polychronicity enhances engagement by enabling employees to handle multiple tasks simultaneously while maintaining focus, motivation, and commitment [43, 44]. Similarly, in restaurant contexts, multitasking-oriented staff demonstrate elevated levels of involvement and dedication to their work [34]. Based on this evidence, the study proposes the following hypothesis:

**H1:** Polychronicity positively influences employees' work engagement.

#### *Polychronicity and job performance*

Job performance can be defined as the extent to which an individual fulfills job responsibilities relative to peers, encompassing various work behaviors and outcomes [45]. Employees with high polychronic tendencies are skilled at handling multiple tasks concurrently, often exceeding standard role expectations to satisfy both customers and organizational goals [43]. These individuals demonstrate strong problem-solving abilities, allowing them to navigate complex customer interactions efficiently. For instance, front desk employees with polychronic orientation can attend to multiple customer requests simultaneously without perceiving them as disruptions, thereby maintaining task efficiency.

Research consistently indicates that polychronic employees exhibit positive attitudes and behaviors, including higher job satisfaction and lower turnover intentions compared to their less polychronic counterparts [38, 43, 46]. Moreover, empirical

evidence suggests that polychronicity has a notable effect on job performance across various organizational contexts, including tourism and hospitality sectors [47-50]. Specifically, studies in the restaurant industry have highlighted that multitasking-oriented employees can achieve higher efficiency and effectiveness in service delivery [34]. Based on these findings, the following hypothesis is proposed:

**H2:** Polychronicity positively influences job performance.

#### *Supervisor's organizational embodiment as a mediator*

Supervisor's organizational embodiment (SOE) refers to employees' perception of their supervisors as the organizational representative or agent [51]. Employees often gauge their connection with the organization through the behaviors and attitudes of their supervisors [52]. A higher degree of supervisor embodiment signals leader engagement, concern, and support, reflecting a stronger alignment between employee, supervisor, and organization [53, 54]. Leaders are responsible for adopting strategies that strengthen their embodiment in the eyes of subordinates, which can improve employee outcomes [55].

Research suggests that employees who perceive strong supervisor embodiment feel more cared for by the organization, which enhances work engagement [56]. Regulatory focus theory further indicates that employees' promotion- or prevention-oriented motivations interact with supervisor embodiment to influence engagement levels [57, 58]. Consequently, employees are likely to invest greater effort and attention when they believe their supervisor's actions represent the organization's priorities [59]. Supervisor support has also been linked to higher job performance, as employees benefit from guidance, feedback, and perceived organizational support (POS), which positively affects job satisfaction and overall performance [43, 60, 61]. Work engagement, encompassing emotional, cognitive, and physical investment in tasks, has been shown to increase job performance, with engaged employees demonstrating focus, motivation, and commitment toward achieving organizational goals [62-65].

Furthermore, prior studies reveal that supervisor embodiment enhances the relationship between employee traits (e.g., creative self-efficacy) and developmental feedback, as well as between leader behaviors and work engagement [40, 55]. In fast-paced hospitality environments, perceived organizational support and supervisor embodiment are key in promoting polychronic employees' engagement, satisfaction, and performance [15, 66, 67].

Based on these insights, the study hypothesizes the following:

**H3:** Supervisor's organizational embodiment is positively associated with work engagement.

**H4:** Supervisor's organizational embodiment is positively associated with job performance.

**H5:** Supervisor's organizational embodiment mediates the relationship between polychronicity and work engagement.

**H6:** Supervisor's organizational embodiment mediates the relationship between polychronicity and job performance.

#### *Psychological ownership as a moderating factor*

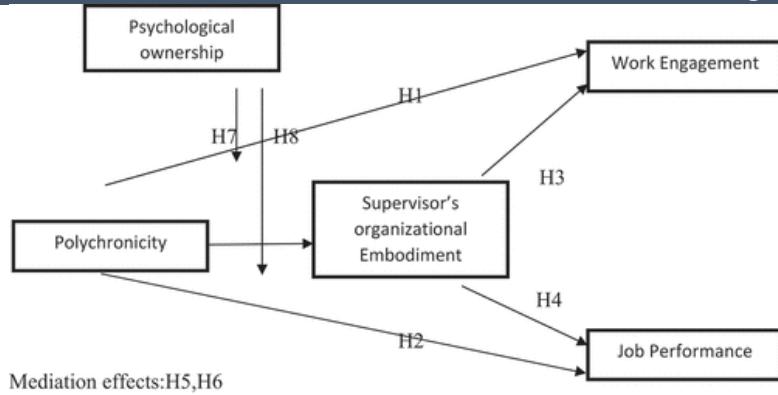
Psychological ownership reflects employees' perception of "personal possession" over their organization, which arises from their experiences and attachment to the workplace [68, 69]. Employees who feel a strong sense of psychological ownership often exhibit higher engagement and improved job performance because they treat organizational goals as their own [70, 71]. In hospitality settings, employees with heightened psychological ownership tend to stay longer and contribute more actively to organizational objectives [59].

Beyond promoting engagement, psychological ownership also influences how employees respond to job demands and leadership styles. For instance, it has been shown to enhance the effects of regulatory focus on work outcomes and strengthens employees' motivation to invest effort in their tasks [59, 72]. In the context of this study, psychological ownership is examined as a factor that can alter the impact of polychronicity on employees' engagement and job performance. Accordingly, the following hypotheses are proposed:

**H7:** Psychological ownership moderates the effect of polychronicity on employee work engagement.

**H8:** Psychological ownership moderates the effect of polychronicity on employee job performance.

For this research, polychronicity is treated as the independent variable, with work engagement and job performance as outcomes. Supervisor's organizational embodiment is considered a mediating mechanism, and psychological ownership is included as a moderating influence. These relationships form the conceptual model depicted in **Figure 1**.

**Figure 1.** Conceptual framework

## Methodology

### Population and sampling

The study population comprises employees working in private tourism establishments within Petra, Jordan. According to official data obtained from the Petra Development and Tourism Commission, the total workforce in the private tourism sector of Petra amounts to 1,607 individuals. A structured electronic questionnaire was randomly distributed to 1,220 employees, yielding 748 completed responses. After excluding 15 incomplete responses, the final dataset consisted of 733 valid questionnaires.

The sample included employees across all social strata and various types of tourism organizations, such as hotels, restaurants, travel agencies, bazaars, and tourist camps. Data collection was facilitated through multiple online channels, including email, WhatsApp, and Facebook Messenger.

To ensure the adequacy of the sample, both theoretical and statistical approaches were employed. Following Saunders *et al.* [73], for a population of approximately 2,000 individuals, a sample size of 696 respondents is sufficient to achieve a 3% margin of error. Accordingly, the final sample of 733 is considered appropriate for quantitative analysis. Additionally, the suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO index of 0.90 indicates excellent sampling adequacy, exceeding the recommended threshold of 0.80 [74]. Bartlett's Test also yielded significant results, confirming the appropriateness of factor analysis for the dataset (**Table 1**).

**Table 1.** KMO and Bartlett's Test

Kaiser-Meyer-Olkin measure of sampling adequacy.	0.900
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.

### Instrumentation

Data were obtained through a structured survey, with all items drawn from prior research to ensure the validity and reliability of the measures. Polychronicity was assessed using a 10-item instrument originally developed by Bluedorn *et al.* [37]. Employee work engagement was captured through a 9-item scale adapted from Balducci *et al.* [75], while job performance was measured using a 7-item scale from Babin and Boles [45]. Psychological ownership was evaluated with a 3-item instrument based on Dai *et al.* [59], and supervisor's organizational embodiment was measured using a 5-item scale from Eisenberger *et al.* [52]. Respondents indicated their level of agreement using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

## Results

### Descriptive statistics and normality assessment

**Table 2** summarizes the descriptive information of the responses. Average scores for the variables ranged between 2.81 and 3.51, suggesting moderate to high levels across the constructs. The data were examined for normality using skewness and kurtosis metrics in line with Kline [76] and Hair *et al.* [77]. According to Byrne [78], skewness and kurtosis values within the range of -7 to +7 indicate an approximately normal distribution. In this study, skewness ranged from -0.39 to -0.37 and kurtosis ranged from -1.17 to -0.66, demonstrating that the dataset satisfies the assumption of normality and is appropriate for subsequent statistical analysis.

**Table 2.** Descriptive statistics

Variables	Mean	S.D	Skewness	Kurtosis
Polychronicity	2.81	0.96	0.37	-0.70
Supervisor's organizational Embodiment	3.42	0.96	-0.39	-0.66
Work Engagement	2.82	1.01	0.28	-1.06
Job Performance	3.32	0.86	-0.12	-0.26
Psychological ownership	3.51	1.13	-0.26	-1.17

*Confirmatory factor analysis (CFA)*

To evaluate the measurement properties of the data, confirmatory factor analysis (CFA) was conducted using AMOS-24. Composite reliability (CR) was calculated to determine the internal consistency of the constructs. According to established standards [79], CR values of 0.70 or higher indicate satisfactory reliability. In this study, all constructs surpassed this benchmark, confirming consistent measurement.

Convergent validity was assessed using the average variance extracted (AVE), where values of 0.50 or above demonstrate that the indicators adequately represent their respective constructs. Discriminant validity was examined by ensuring that the square root of AVE for each construct exceeded its correlations with other constructs [80]. The findings presented in **Table 3** show that all constructs met these criteria, with AVE values above 0.50, CR values exceeding 0.70, and the square roots of AVE larger than inter-construct correlations. These results indicate that the measurement model is both reliable and valid.

**Table 3.** Reliability and validity analysis

Variables	CR	AVE	1	2	3	4	5
1- Polychronicity	0.885	0.564	<b>0.751</b>				
2- Supervisor's organizational Embodiment	0.753	0.580	0.474***	<b>0.762</b>			
3- Work Engagement	0.895	0.589	0.642***	0.551***	<b>0.767</b>		
4- Job Performance	0.861	0.551	0.298***	0.790***	0.258***	<b>0.742</b>	
5- Psychological ownership	0.851	0.504	-0.033	0.130**	-0.051	0.195***	<b>0.710</b>

N = 733; Diagonal bold are values for square root of AVE; CR = composite reliability; AVE = average variance extracted

*Measurement model fit*

Following the assessment of reliability and validity, the fit of the measurement model was evaluated, with the results summarized in **Table 4**. Commonly employed fit indices for covariance-based structural equation modeling (SEM) — including  $\chi^2/DF$ , RMSEA, IFI, CFI, and TLI — were used to assess model adequacy. The initial five-factor measurement model demonstrated suboptimal fit, as several indices did not meet the recommended thresholds outlined by Hu and Bentler [81]. Specifically, the baseline model yielded  $\chi^2/DF = 3.22$ , IFI = 0.75, TLI = 0.73, CFI = 0.75, and RMSEA = 0.09.

To improve model fit, modification indices were applied, and selected error terms were allowed to correlate. After these adjustments, the revised measurement model achieved a satisfactory fit:  $\chi^2/DF = 2.68$ , IFI = 0.96, TLI = 0.95, CFI = 0.96, and RMSEA = 0.06. The finalized measurement model is illustrated in **Figure 2**, reflecting a robust structure suitable for subsequent structural analyses.

**Table 4.** Measurement model

Measurement Models	$\chi^2$	Df	$\chi^2/df$	RMSEA	IFI	TLI	CFI
5- Factor Baseline Model	1902.39	454	4.19	0.07	0.85	0.84	0.85
5- Factor Revised Model	1202.01	448	2.68	0.06	0.96	0.95	0.96
Recommended Values [81]			< 3.0	<0.08	$\geq 0.95$	$\geq 0.95$	$\geq 0.95$

N = 733

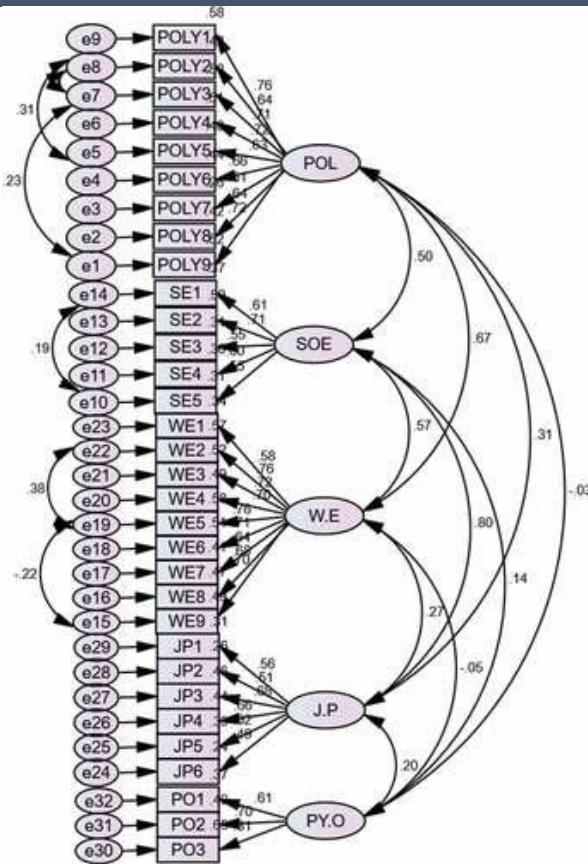


Figure 2. Final measurement model

### Test of hypotheses

After confirming the adequacy of the measurement model, structural equation modeling (SEM) was employed to examine both the direct and indirect hypothesized relationships, with the results presented in **Table 5**. The direct effect analysis revealed that polychronicity has a positive and statistically significant influence on work engagement ( $\beta = 0.631$ ,  $P < .001$ ) and on job performance ( $\beta = 0.187$ ,  $P < .001$ ), thereby supporting hypotheses H1 and H2. Additionally, supervisor's organizational embodiment was found to significantly impact work engagement ( $\beta = 0.409$ ,  $P < .001$ ) and job performance ( $\beta = 0.366$ ,  $P < .001$ ), confirming hypotheses H3 and H4.

Table 5. Direct effect

No	Relationships	Estimate	P-Value	Result
$H_{01}$	Polychronicity → Work Engagement	0.631	***	Accepted
$H_{02}$	Polychronicity → Job Performance	0.187	***	Accepted
$H_{03}$	Supervisor's Organizational Embodiment → Work Engagement	0.409	***	Accepted
$H_{04}$	Supervisor's Organizational Embodiment → Job Performance	0.366	***	Accepted

\*\*\*  $p < .001$

### Mediation analysis

**Table 6** illustrates the indirect effects of supervisor's organizational embodiment on the relationships between polychronicity and both work engagement and job performance. The findings indicate a significant mediation of supervisor's organizational embodiment in the effect of polychronicity on work engagement ( $\beta = 0.110$ ,  $P < .01$ , CI = 0.08–0.14). Similarly, polychronicity also significantly influences job performance through the mediating role of supervisor's organizational embodiment ( $\beta = 0.238$ ,  $P < .001$ , CI = 0.19–0.29). Notably, the confidence intervals for both relationships do not include zero, confirming the significance of the mediation. Therefore, hypotheses H5 and H6 are supported and accepted.

Table 6. Indirect effects

Relationships	Effect	SE	LLCI	ULCI
$H_{05}$ : Polychronicity → Supervisor's Organizational Embodiment → Work Engagement	0.110**	0.01	0.079	0.138
$H_{06}$ : Polychronicity → Supervisor's Organizational Embodiment → Job Performance	0.238***	0.02	0.191	0.287

\*\*  $p < .01$ ; \*\*\*  $p < .001$ ; SE = Standard Error; LLCI = Lower limit confidence interval; ULCI = Upper limit confidence interval

### Moderation analysis

To examine the moderating role of psychological ownership, Hayes' PROCESS macro was applied along with slope tests. The findings are summarized in **Tables 7 and 8**, while **Figures 3 and 4** illustrate the interaction patterns for high and low levels of the moderator ( $\pm 1$  SD).

For work engagement, **Table 7** shows that the change in  $R^2$  ( $\Delta R^2 = 0.02$ ) and associated F-value ( $F = 23.60$ ) are statistically significant, indicating that psychological ownership significantly alters the impact of polychronicity on work engagement. Slope analysis (**Figure 3**) reveals that employees with low polychronicity and low psychological ownership exhibit the lowest engagement levels. In contrast, even when polychronicity is low, high psychological ownership enhances engagement. The highest work engagement occurs when both polychronicity and psychological ownership are high.

Regarding job performance, **Table 8** and **Figure 4** demonstrate a similar pattern. Employees with low polychronicity and low psychological ownership show reduced performance, whereas high psychological ownership mitigates the negative effects of low polychronicity. Maximum performance is achieved when both variables are elevated. These results provide strong support for hypotheses H7 and H8, confirming that psychological ownership functions as a significant moderator between polychronicity and both work engagement and job performance.

**Table 7.** Conditional effects of the focal predictor (Polychronicity) at values of the moderator (Psychological Ownership)

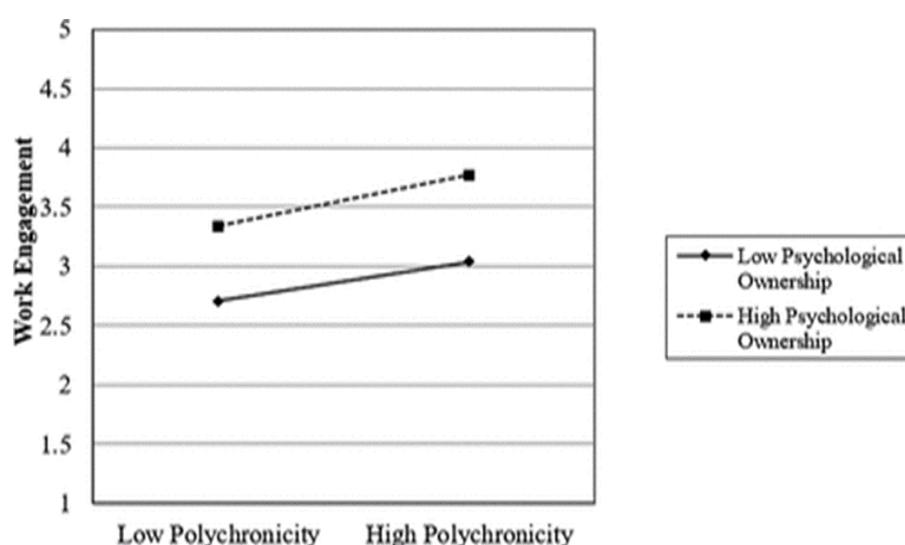
DV: Work Engagement	↓	p	95% CI
One SD below mean	0.170	<.001	0.077
At the mean	0.324	<.001	0.261
One SD above mean	0.513	<.001	0.348
<b>Test(s) of highest order unconditional interaction: (X*W)</b>			
R2 -change = .0198***			
F Statistics = 23.604			

\*\*\* p < .001

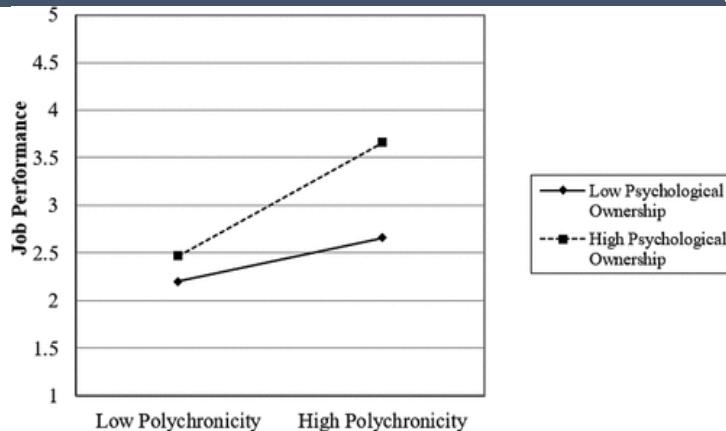
**Table 8.** Conditional effects of the focal predictor (Polychronicity) at values of the moderator (Psychological Ownership)

DV: Job Performance	↓	p	95% CI
One SD below mean	0.239	<.001	0.133
At the mean	0.425	<.001	0.358
One SD above mean	0.611	<.001	0.536
<b>Test(s) of highest order unconditional interaction: (X*W)</b>			
R2 -change = .0275***			
F Statistics = 34.990			

\*\*\* p < .001



**Figure 3.** Mod graph (DV = Work engagement)



**Figure 4.** Mod graph (DV = Job performance)

## Discussion

The tourism sector continues to expand rapidly, contributing approximately 10.4% to the global GDP and providing one in ten jobs worldwide [82]. Beyond its economic impact, tourism is a key driver of foreign exchange earnings and plays a pivotal role in reducing unemployment, particularly in developing countries. In many Arab nations, the industry not only supports trade balance but also contributes to infrastructure development, making it a critical component of economic growth [83]. Tourism also enhances community development by creating employment opportunities, improving living standards, and promoting cultural and natural attractions [84, 85]. Increased tourist activity, in turn, benefits hospitality establishments, including hotels and restaurants, thereby stimulating economic activity and employment generation [86, 87].

This study extends the literature on polychronicity and its impact on critical employee outcomes. Specifically, it contributes to understanding the mechanisms linking polychronicity with work engagement and job performance, while highlighting the roles of supervisor's organizational embodiment and psychological ownership. First, the research confirms that employees with higher levels of polychronicity—those capable of managing multiple tasks simultaneously—exhibit greater work engagement. In the hospitality sector, where high turnover and challenging work conditions are common, such employees demonstrate resilience and dedication [66, 88]. Polychronicity enables individuals to switch attention effectively between tasks, which fosters a sense of competence and involvement at work [89, 90]. These findings support H1, showing that employees in Petra's tourism industry who engage in multitasking are more absorbed, committed, and focused on their roles. Similarly, H2 is supported, demonstrating that polychronicity positively affects job performance. Employees with strong multitasking capabilities not only meet but often exceed expectations, navigating complex customer interactions efficiently [34, 43]. The study also highlights the importance of supervisory support in enhancing employee outcomes. Hypotheses H3 and H4 are confirmed, showing that a supervisor's organizational embodiment—employees' perception of their leaders as representing the organization—significantly boosts both work engagement and job performance. Supervisors play a critical role in providing direction, feedback, and support, which strengthens employees' motivation and commitment to organizational goals [51, 91].

The mediating role of supervisor's organizational embodiment is substantiated in H5 and H6. This study demonstrates that supervisors who are perceived as organizational agents enhance the effects of polychronicity on engagement and performance. Employees interpret the actions of these supervisors as reflective of the organization's support, which encourages greater effort and dedication [92, 93]. Thus, organizational embodiment serves as a key mechanism through which polychronic employees can translate their multitasking abilities into higher engagement and job effectiveness.

Finally, psychological ownership was examined as a moderating factor. The results support H7 and H8, indicating that employees' feelings of ownership over their work and organization strengthen the relationship between polychronicity and both work engagement and job performance. Employees who perceive a sense of ownership are more likely to leverage their multitasking abilities effectively, demonstrating increased commitment and enhanced performance outcomes. This highlights the practical importance of fostering psychological ownership in hospitality settings to maximize the benefits of polychronicity among staff.

In summary, this study provides empirical evidence that polychronicity, when supported by strong supervisory embodiment and psychological ownership, significantly enhances employee engagement and performance in the tourism and hospitality industry. These findings offer valuable insights for managers aiming to optimize workforce productivity in high-demand service environments.

## Implications

Organizational behavior is a multifaceted discipline, and numerous studies have identified factors that shape employees' actions and attitudes within organizations. This study contributes to this body of knowledge by highlighting key determinants of work engagement and job performance, offering valuable insights for both scholars and practitioners.

From a theoretical standpoint, the research draws attention to critical aspects of employee engagement and performance, linking them to organizational factors that can enhance these outcomes. In the context of the tourism industry, this study integrates Person-Organization Fit (P-O Fit) theory, which emphasizes aligning the right individuals with appropriate roles to achieve organizational objectives [49], and Organizational Support Theory (OST), which posits that supervisors play a central role in fostering positive social exchanges between employees and the organization [94].

Moreover, this study enriches the literature on polychronicity, supervisor's organizational embodiment, psychological ownership, work engagement, and job performance. Due to the limited prior research on polychronicity in tourism settings, particularly its connection with engagement and performance, this study offers novel contributions by exploring these relationships comprehensively. In addition, it examines the mediating role of supervisor's organizational embodiment and the moderating influence of psychological ownership, which have been minimally addressed in previous research.

Practically, the findings provide actionable guidance for organizational leaders and human resource professionals. Organizations facing challenges related to low employee engagement or suboptimal performance can leverage insights from this study, focusing on enhancing polychronic abilities, strengthening supervisors' organizational embodiment, and fostering psychological ownership among employees to achieve better outcomes. Academicians can also use these results as a reference point for further studies on employee behavior and performance in service-oriented sectors.

## Limitations and Future Research Directions

Although this research provides valuable insights into the factors influencing work engagement and job performance, several limitations should be noted, offering opportunities for future investigations.

First, the study was confined to the city of Petra in Jordan. Future research could expand the model by including data from other cities in Jordan or from international tourist destinations with diverse cultural contexts. Second, while this study examined several determinants of engagement and performance, other potential factors—such as regulatory focus—may also play a significant role and warrant exploration in subsequent research [59].

Third, the conceptual framework could be extended by incorporating internal marketing as a moderating variable, given its relevance in shaping employee outcomes in service industries [95, 96]. Fourth, the current research focused on all employees in Petra's private tourist facilities. Future studies could refine this by targeting specific employee categories, such as managerial staff, to gain more nuanced insights.

Finally, while the present study relied on structured questionnaires, future research could incorporate qualitative methods, such as personal interviews, to provide a deeper understanding of how polychronicity influences job performance and engagement. This mixed-method approach could yield richer insights and enhance the robustness of findings.

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## References

1. Cheng JC, Chen CY. Job resourcefulness, work engagement and prosocial service behaviors in the hospitality industry. *Int J Contemp Hosp Manag.* 2017;29(10):2668-87.
2. Wang Z. Factors that affect employee turnover in five-star hotels in Beijing, China. *Auckland Univ Technol* 2017.
3. Afsar B, Shahjehan A, Shah SI. Frontline employees' high-performance work practices, trust in supervisor, job-embeddedness and turnover intentions in hospitality industry. *Int J Contemp Hosp Manag.* 2018;30(3):1436-52.
4. Andriani R, Disman D, Ahman E, Santoso B. Polychronicity: Model and analysis of conditional process toward employee turnover intentions. *J Innov Bus Econ.* 2021;5(1):1-14.
5. Li Z, Duverger P, Yu L. Employee creativity trumps supervisor-subordinate guanxi: Predicting prequitting behaviors in China's hotel industry. *Tour Manag.* 2018;69:23-37.
6. Harrington D, Lenehan T. Managing quality in tourism: Theory and practice. Dublin: Oak Tree Press; 1998.
7. Poon A. Tourism, technology and competitive strategies. Wallingford: CAB International; 1993.

8. Ali BJ, Gardi B, Jabbar Othman B, Ali Ahmed S, Burhan Ismael N, Abdalla Hamza P. Hotel service quality: The impact of service quality on customer satisfaction in hospitality. *Int J Eng Bus Manag.* 2021;5(3):14-28.
9. Fowowe MA, Arogundade KK. Impact of employees' empowerment on perceived quality of service delivery in the tertiary health institutions. *Encyclopedia of organizational knowledge, administration, and technology.* Hershey, PA: IGI Global; 2021. p. 2014-30.
10. Guan X, Yeh SS, Chiang TY, Huan T. Does organizational inducement foster work engagement in hospitality industry? Perspectives from a moderated mediation model. *J Hosp Tour Manag.* 2020;43:259-68.
11. Pang L, Kucukusta D, Chan X. Employee turnover intention in travel agencies: Analysis of controllable and uncontrollable factors. *Int J Tour Res.* 2015;17(6):577-90.
12. Ismail HN, Iqbal A, Nasr L. Employee engagement and job performance in Lebanon: The mediating role of creativity. *Int J Product Perform Manag.* 2019;68(3):506-23.
13. Motyka B. Employee engagement and performance: A systematic literature review. *Int J Manag Econ.* 2018;54(3):227-44.
14. Sendawula K, Nakyejwe Kimuli S, Bananuka J, Najjemba Muganga G, Wanasika I. Training, employee engagement and employee performance: Evidence from Uganda's health sector. *Cogent Bus Manag.* 2018;5(1):1470891.
15. Asghar M, Tayyab M, Gull N, Zhijie S, Shi R, Tao X. Polychronicity, work engagement, and turnover intention: The moderating role of perceived organizational support in the hotel industry. *J Hosp Tour Manag.* 2021;49:129-39.
16. Bluedorn AC, Kaufman CF, Lane PM. How many things do you like to do at once? An introduction to monochronic and polychronic time. *Acad Manag Perspect.* 1992;6(4):17-26.
17. Kaufman-Scarborough C. Monochronic and polychronic time. *Int Encycl Intercult Commun.* 2017:1-5.
18. Alhasanat S, Hyasat AS. Sociocultural impacts of tourism on the local community at Petra, Jordan. *Jordan J Soc Sci.* 2011;4(1):144-58.
19. Consultants ATC. The strategic master plan for the Petra region, prepared for the Petra Development and Tourism Authority. Amman: Petra Development and Tourism Region Authority; 2011.
20. Tarawneh MB, Wray M. Incorporating Neolithic villages at Petra, Jordan: An integrated approach to sustainable tourism. *J Herit Tour.* 2017;12(2):155-71.
21. World T, Tourism C. Travel & tourism economic impact research: Jordan. London: WTTC; 2017.
22. Hu F. What makes a hotel review helpful? An information requirement perspective. *J Hosp Mark Manag.* 2020;29(5):571-91.
23. Pacheco L. Customer satisfaction in Portuguese hotels: Evidence for different regions and hotel segments. *Tour Anal.* 2017;22(3):337-47.
24. Kristof AL. Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Pers Psychol.* 1996;49(1):1-49.
25. Bahat E. Person-organization fit and commitment to volunteer organizations. *Voluntas.* 2021;32(6):1255-70.
26. Chen P, Sparrow P, Cooper C. The relationship between person-organization fit and job satisfaction. *J Manag Psychol.* 2016;31(5):946-59.
27. Dhir S, Dutta T. Linking supervisor-support, person-job fit and person-organization fit to company value. *J Indian Bus Res.* 2020;12(4):549-61.
28. Sørli HO, Hetland J, Bakker AB, Espevik R, Olsen OK. Daily autonomy and job performance: Does person-organization fit act as a key resource? *J Vocat Behav.* 2022;133:103691.
29. Afsar B, Badir Y. Workplace spirituality, perceived organizational support and innovative work behavior: The mediating effects of person-organization fit. *J Workplace Learn.* 2017;29(2):95-109.
30. Grobelna A. Effects of individual and job characteristics on hotel contact employees' work engagement and their performance outcomes: A case study from Poland. *Int J Contemp Hosp Manag.* 2018;30(1):1-15.
31. Korabik K, van Rhijn T, Ayman R, Lero DS, Hammer LB. Gender, polychronicity, and the work-family interface: Is a preference for multitasking beneficial? *Community Work Fam.* 2017;20(3):307-26.
32. Chinchanachokchai S, Duff BRL, Sar S. The effect of multitasking on time perception, enjoyment, and ad evaluation. *Comput Human Behav.* 2015;45:185-91.
33. Andriani AR, Disman D. Polychronicity in the hotel industry in Bandung city. *Advances in business, management and entrepreneurship.* Boca Raton: CRC Press; 2020. p. 709-13.
34. Asghar M, Gull N, Tayyab M, Zhijie S, Tao X. Polychronicity at work: Work engagement as a mediator of the relationships between job outcomes. *J Hosp Tour Manag.* 2020;45:470-8.
35. Anser MK, Yousaf Z, Khan A, Usman M. Towards innovative work behavior through knowledge management infrastructure capabilities: Mediating role of functional flexibility and knowledge sharing. *Eur J Innov Manag.* 2020;24:1-20.

36. Mattarelli E, Bertolotti F, Incerti V. The interplay between organizational polychronicity, multitasking behaviors and organizational identification: A mixed-methods study in knowledge intensive organizations. *Int J Hum Comput Stud.* 2015;79:6-19.

37. Bluedorn AC, Kalliath TJ, Strube MJ, Martin GD. Polychronicity and the Inventory of Polychronic Values (IPV): The development of an instrument to measure a fundamental dimension of organizational culture. *J Manag Psychol.* 1999;14(3-4):205-31.

38. Jang J, George RT. Understanding the influence of polychronicity on job satisfaction and turnover intention: A study of non-supervisory hotel employees. *Int J Hosp Manag.* 2012;31(2):588-95.

39. Barari M, Ross M, Thaichon S, Surachartkumtonkun J. A meta-analysis of customer engagement behaviour. *Int J Consum Stud.* 2021;45(4):457-77.

40. Sun L, Bunchapattanasakda C. Employee engagement: A literature review. *Int J Hum Resour Stud.* 2019;9(1):63-80.

41. Xie Q, Sundararaj V, Mr R. Analyzing the factors affecting the attitude of public toward lockdown, institutional trust, and civic engagement activities. *J Community Psychol.* 2022;50(2):806-22.

42. Altinay L, Dai YD, Chang J, Lee CH, Zhuang WL, Liu YC. How to facilitate hotel employees' work engagement: The roles of leader-member exchange, role overload and job security. *Int J Contemp Hosp Manag.* 2019;31(3):1525-42.

43. Karatepe OM, Karadas G, Azar AK, Naderiadib N. Does work engagement mediate the effect of polychronicity on performance outcomes? A study in the hospitality industry in Northern Cyprus. *J Hum Resour Hosp Tour.* 2013;12(1):52-70.

44. Slättén T, Mehmetoglu M. Antecedents and effects of engaged frontline employees: A study from the hospitality industry. *Manag Serv Qual.* 2011;21(1):88-107.

45. Babin BJ, Boles JS. Employee behavior in a service environment: A model and test of potential differences between men and women. *J Mark.* 1998;62(2):77-91.

46. Arndt A, Arnold TJ, Landry TD. The effects of polychronic-orientation upon retail employee satisfaction and turnover. *J Retail.* 2006;82(4):319-30.

47. Arasli H, Namin BH, Abubakar AM. Workplace incivility as a moderator of the relationships between polychronicity and job outcomes. *Int J Contemp Hosp Manag.* 2018;30(3):1245-72.

48. Conte JM, Aasen B, Jacobson C, O'Loughlin C, Toroslu L. Investigating relationships among polychronicity, work-family conflict, job satisfaction, and work engagement. *J Manag Psychol.* 2019;34(7):459-73.

49. Kantrowitz TM, Grelle DM, Beaty JC, Wolf MB. Time is money: Polychronicity as a predictor of performance across job levels. *Hum Perform.* 2012;25(2):114-37.

50. Wu TJ, Gao JY, Wang LY, Yuan KS. Exploring links between polychronicity and job performance from the person-environment fit perspective—The mediating role of well-being. *Int J Environ Res Public Health.* 2020;17(10):3711.

51. Eisenberger R, Karagonlar G, Stinglhamber F, Neves P, Becker TE, Gonzalez-Morales MG. Leader-member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *J Appl Psychol.* 2010;95(6):1085-100.

52. Eisenberger R, Shoss MK, Karagonlar G, Gonzalez-Morales MG, Wickham RE, Buffardi LC. The supervisor POS-LMX-subordinate POS chain: Moderation by reciprocation wariness and supervisor's organizational embodiment. *J Organ Behav.* 2014;35(5):635-56.

53. Mackey JD, McAllister CP, Brees JR, Huang L, Carson JE. Perceived organizational obstruction: A mediator that addresses source-target misalignment between abusive supervision and OCBs. *J Organ Behav.* 2018;39(10):1283-95.

54. Su W, Lin X, Ding H. The influence of supervisor developmental feedback on employee innovative behavior: A moderated mediation model. *Front Psychol.* 2019;10:1581.

55. Zhang J, Su W. Linking leader humor to employee innovative behavior: The roles of work engagement and supervisor's organizational embodiment. *Front Psychol.* 2020;11:3428.

56. Dai YD, Hou YH, Chen KY, Zhuang WL. To help or not to help: Antecedents of hotel employees' organizational citizenship behavior. *Int J Contemp Hosp Manag.* 2018;30(3):1293-313.

57. Diener E, Larsen RJ, Emmons RA. Person: Situation interactions: Choice of situations and congruence response models. *J Pers Soc Psychol.* 1984;47(3):580-.

58. Endler NS, Edwards JM. Interactionism in personality in the twentieth century. *Pers Individ Differ.* 1986;7(3):379-84.

59. Dai YD, Altinay L, Zhuang WL, Chen KT. Work engagement and job burnout? Roles of regulatory foci, supervisors' organizational embodiment and psychological ownership. *J Hosp Tour Manag.* 2021;46:114-22.

60. Farh JL, Hackett RD, Liang J. Individual-level cultural values as moderators of perceived organizational support-employee outcome relationships in China: Comparing the effects of power distance and traditionality. *Acad Manag J.* 2007;50(3):715-29.

61. Sekhar C, Patwardhan M, Vyas V. Linking work engagement to job performance through flexible human resource management. *Adv Dev Hum Resour.* 2018;20(1):72-87.

62. Kahn WA. Psychological conditions of personal engagement and disengagement at work. *Acad Manag J.* 1990;33(4):692-724.

63. Rich BL, Lepine JA, Crawford ER. Job engagement: Antecedents and effects on job performance. *Acad Manag J.* 2010;53(3):617-35.

64. Schaufeli W, Salanova M. Work engagement: On how to better catch a slippery concept. *Eur J Work Organ Psychol.* 2011;20(1):39-46.

65. Stoeber J, Damian LE. Perfectionism in employees: Work engagement, workaholism, and burnout. *Perfectionism, health, and well-being.* Cham: Springer; 2016. p. 265-83.

66. Cheng JC, Yi O. Hotel employee job crafting, burnout, and satisfaction: The moderating role of perceived organizational support. *Int J Hosp Manag.* 2018;72:78-85.

67. Koo B, Yu J, Chua BL, Lee S, Han H. Relationships among emotional and material rewards, job satisfaction, burnout, affective commitment, job performance, and turnover intention in the hotel industry. *J Qual Assur Hosp Tour.* 2020;21(4):371-401.

68. Dawkins S, Tian AW, Newman A, Martin A. Psychological ownership: A review and research agenda. *J Organ Behav.* 2017;38(2):163-83.

69. Van Dyne L, Pierce JL. Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *J Organ Behav.* 2004;25(4):439-59.

70. Kim M, Beehr TA. Self-efficacy and psychological ownership mediate the effects of empowering leadership on both good and bad employee behaviors. *J Leadersh Organ Stud.* 2017;24(4):466-78.

71. Md-Sidin S, Sambasivan M, Muniandy N. Impact of psychological ownership on the performance of business school lecturers. *J Educ Bus.* 2009;85(1):50-6.

72. Rapti A. Employee psychological ownership and work engagement: An extension of the JD-R model. Bath: Univ Bath; 2016.

73. Saunders M, Lewis P, Thornhill A. *Research methods for business students.* Harlow: Pearson Education; 2012.

74. Hair JF, Anderson RE, Tatham RL, William C. *Multivariate data analysis.* Upper Saddle River, NJ: Prentice Hall; 1998.

75. Balducci C, Fraccaroli F, Schaufeli WB. Psychometric properties of the Italian version of the Utrecht Work Engagement Scale (UWES-9): A cross-cultural analysis. *Eur J Psychol Assess.* 2010;26(2):143-9.

76. Kline RB. *Principles and practice of structural equation modeling.* New York: Guilford Publications; 2015.

77. Hair JF, William CB, Babin BJ, Anderson RE. *Multivariate data analysis.* Upper Saddle River, NJ: Prentice Hall; 2010.

78. Byrne BM. *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* New York: Taylor & Francis Group; 2010.

79. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *J Mark Res.* 1981;18(1):39-50.

80. Anderson JC, Gerbing DW. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol Bull.* 1988;103(3):411-.

81. Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct Equ Model.* 1999;6(1):1-55.

82. World T, Tourism C. *Travel & tourism economic impact.* London: WTTC; 2019.

83. Mustafa MH. Tourism and globalization in the Arab world. *Int J Bus Soc Sci.* 2010;1(1):1-8.

84. Ko DW, Stewart WP. A structural equation model of residents' attitudes for tourism development. *Tour Manag.* 2002;23(5):521-30.

85. Sheng L, Tsui Y. Foreign investment in tourism: The case of Macao as a small tourism economy. *Tour Geogr.* 2010;12(2):173-91.

86. Lazer W, Layton R. Quality of hospitality service: A challenge for the millennium. *Contemporary hospitality marketing: A service management approach.* East Lansing, MI: Educ Inst AH&AM; 1999.

87. Liang ZX, Bao JG. Tourism gentrification in Shenzhen, China: Causes and socio-spatial consequences. *Tour Geogr.* 2015;17(3):461-81.

88. Vizcaíno FV, Martin SL, Cardenas JJ, Cardenas M. Employees' attitudes toward corporate social responsibility programs: The influence of corporate frugality and polychronicity organizational capabilities. *J Bus Res.* 2021;124:538-46.

89. Magen H. The relations between executive functions, media multitasking and polychronicity. *Comput Human Behav.* 2017;67:1-9.

90. Robinson HR, Kalafatis SP. The Polychronicity-Multiple Media Use (P-MMU) scale: A multi-dimensional scale to measure polychronicity in the context of multiple media use. *J Mark Manag.* 2017;33(17-18):1421-42.

91. House RJ. Path-goal theory of leadership: An examination of a prescriptive theory. *Leadersh Q.* 1996;7(3):323-52.

92. Lei M, Chen W. Perceived organizational support leads to less depression among hotel employees in China. *J Hum Resour Manag.* 2020;8(2):60-8.

93. Stinglhamber F, Marique G, Caesens G, Hanin D, De Zanet F. The influence of transformational leadership on followers' affective commitment: The role of perceived organizational support and supervisor's organizational embodiment. *Career Dev Int.* 2015;20(6):583-603.

94. Eisenberger R, Huntington R, Hutchison S, Sowa D. Perceived organizational support. *J Appl Psychol.* 1986;71(3):500-507.

95. Abbas A, Afshan G, Haq T, Aslam I. The effect of internal marketing on affective commitment: A marketing mix approach for the Islamic bank employees. *Int J Acad Res Bus Soc Sci.* 2018;8(1):75-120.

96. Abbas A, Riaz MT, Javid A. The effect of internal marketing on organizational commitment of male employees. *J Appl Environ Biol Sci.* 2018;8(3):41-50.