

Job Satisfaction and Adaptive Performance: The Mediating Roles of Independence, Efficiency, and Interdependence

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Abstract

Digital transformation has become a key driver of competitiveness in the tourism industry, particularly in Malaysia, where organizations are increasingly adopting digital technologies to enhance service delivery and operational efficiency. This study examines the mediating role of autonomy, competence, and relatedness in the relationship between job satisfaction and adaptive performance among employees in Malaysian tourism companies. Job satisfaction is conceptualized as a multidimensional construct consisting of job field satisfaction, workplace satisfaction, and task satisfaction. Grounded in Self-Determination Theory, the study proposes that psychological needs serve as key mechanisms through which job satisfaction influences adaptive performance in digital work environments.

A quantitative research design was employed, and data were collected from employees working in tourism companies in Malaysia. The study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) with a bootstrapping procedure of 5,000 resamples to test the hypothesized relationships and mediation effects. The analysis focused on both direct and indirect relationships between constructs.

The results indicate that job satisfaction has a significant positive effect on adaptive performance. Among the mediating variables, competence was found to significantly mediate the relationship between job satisfaction and adaptive performance, while autonomy and relatedness were not significant mediators. These findings suggest that employees' perceived competence plays a crucial role in translating job satisfaction into adaptive performance in digitally transforming tourism environments.

The study contributes to Self-Determination Theory by highlighting competence as the dominant psychological mechanism in technology-driven workplaces. Practically, the findings emphasize the importance of enhancing employee digital skills and competence development to improve adaptability and performance in Malaysia's tourism sector. Concise and accurate summary of the research.

Keywords: Efficiency, interdependence, job Knowledge, adaptive performance and Digital Transformation.

Introduction

Job satisfaction has become one of the most important organizational factors influencing employee performance, adaptive behavior, and organizational sustainability, especially in industries experiencing rapid technological changes such as the tourism sector. In Malaysia, tourism companies are increasingly implementing digital transformation strategies to improve operational efficiency, customer engagement, and service innovation. However, the success of digital transformation does not depend solely on technological infrastructure but also on employees' psychological readiness satisfaction at work.

Employees who experience higher levels of job satisfaction are more likely to demonstrate adaptive performance, accept technological change, and contribute positively to organizational goals (Judge et al., 2001).

Self-Determination Theory (SDT) provides a strong theoretical foundation for understanding the relationship between job satisfaction, and adaptive performance. According to SDT, individuals are intrinsically motivated when their psychological needs for autonomy, competence, and relatedness are fulfilled (Ryan & Deci, 2017). Autonomy refers to employees' ability to make decisions independently in their work environment, competence reflects employees' confidence in their skills and abilities, while relatedness concerns the quality of social relationships and support within the workplace. These three dimensions significantly influence employee satisfaction and behavioral outcomes in organizations undergoing digital transformation (Deci et al., 2017).

In the context of tourism companies in Malaysia, digital transformation has changed the nature of work processes, communication systems, customer service delivery, and employee responsibilities. Employees are expected to adapt quickly to digital technologies such as online booking systems, artificial intelligence, digital marketing platforms, and customer relationship management systems. Consequently, adaptive performance has become a critical competency for employees in tourism organizations. Adaptive performance refers to employees' ability to adjust effectively to changing work environments, technological innovations, and unexpected challenges (Pulakos et al., 2000). Employees who are satisfied with their jobs are more likely to embrace digital transformation initiatives and respond positively to organizational changes.

Previous studies indicate that job satisfaction positively influences job satisfaction and employee performance in technology-driven workplaces (Gagné & Deci, 2005). Satisfied employees tend to demonstrate higher levels of engagement, creativity, and flexibility, which are necessary for successful digital transformation. Furthermore, organizations that provide supportive work environments, opportunities for skill development, and participative decision-making processes contribute significantly to employees' psychological well-being and satisfaction (Baard et al., 2004). In tourism companies, employees who feel valued and supported are more capable of adapting to new technologies and service innovations.

Autonomy plays a vital role in improving job satisfaction and adaptive performance during digital transformation. Employees who are given greater freedom in decision-making and problem-solving are more likely to develop innovative solutions and adjust effectively to technological changes (Hackman & Oldham, 1976). In tourism organizations, autonomy allows employees to personalize customer service experiences and manage digital tasks efficiently. This independence enhances and increases job satisfaction, ultimately improving adaptive performance.

Competence is another significant mediator of job satisfaction and adaptive performance. Employees who possess adequate digital knowledge, technical skills, and confidence in using technological systems are more likely to perform effectively in digital work environments (Bandura, 1997). Training programs, continuous learning opportunities, and organizational support contribute to enhancing employees' competence and reducing resistance to change. In Malaysian tourism companies, competence development is essential because employees frequently interact with digital platforms and international customers. When employees perceive themselves as capable and knowledgeable, their satisfaction and adaptability increase significantly. Relatedness also contributes substantially to employee satisfaction and adaptive behavior. Positive interpersonal relationships, teamwork, and managerial support create a sense of belonging and emotional security within the organization (Ryan & Deci, 2017; Abu-Naser, Obaid, Abumandil, & Mahmoud, 2022; Obaid, Abu-Naser, Abumandil, Mahmoud, & Ali, 2022). In digital transformation contexts, employees often experience uncertainty and stress due to changing technologies and work demands. Supportive social environments can reduce these negative effects and encourage collaboration, communication, and knowledge sharing among employees. Tourism organizations that foster strong workplace relationships are more likely to maintain employee satisfaction and improve adaptive performance during technological transitions.

Despite the growing importance of digital transformation in Malaysia's tourism sector, many organizations continue to face challenges related to employee resistance, lack of digital knowledge, limited and low job satisfaction. These issues negatively affect adaptive performance and organizational effectiveness. Previous research has mainly focused on technological adoption and organizational readiness while

paying limited attention to psychological factors influencing employee adaptability (Venkatesh et al., 2003; Eneizan, Obaid, Abumandil, Mahmoud, Abu-Naser, Arif, & Abulehia, 2022). Therefore, this study aims to bridge this gap by examining the impact of job satisfaction on adaptive performance through the mediating roles of autonomy, competence, and relatedness.

The study contributes theoretically by extending Self-Determination Theory into the context of digital transformation in tourism organizations. It also provides practical implications for managers and policymakers in Malaysia's tourism industry. By understanding the importance of job satisfaction and psychological needs, organizations can develop strategies to enhance employee, improve workplace satisfaction, and strengthen adaptive performance. These strategies may include employee empowerment, continuous digital training, recognition systems, supportive leadership, and collaborative work cultures.

In conclusion, job satisfaction is a fundamental element in enhancing adaptive performance during digital transformation in tourism companies in Malaysia. Employees who experience autonomy, competence, and relatedness are more satisfied, and capable of adapting to technological and organizational changes. The integration of Self-Determination Theory into this research provides a comprehensive understanding of how psychological factors influence employee adaptability and organizational success in the digital era. Therefore, tourism companies should prioritize satisfaction-related strategies to ensure effective digital transformation and sustainable organizational performance.

Job Satisfaction and Adaptive Performance in Tourism Companies: The relationship between job satisfaction and adaptive performance has gained increasing attention in recent organizational and tourism research. Employees who are satisfied with their jobs are generally more proactive, innovative, and resilient when facing organizational changes and technological developments (Judge et al., 2021). In digital tourism environments, adaptive performance is essential because employees must continuously update their skills and respond effectively to customer expectations and digital trends.

Despite the importance of adaptive performance, many tourism companies in Malaysia continue to face challenges related to employee dissatisfaction, resistance to digital transformation, and limited psychological support. Previous studies have mainly focused on technology acceptance and digital innovation while paying limited attention to psychological needs and mediating variables influencing employee adaptability (Lim et al., 2025). Therefore, this study seeks to address this research gap by examining the mediating roles of autonomy, competence, and relatedness in the relationship between job satisfaction and adaptive performance.

In conclusion, job satisfaction is a critical factor influencing employees' adaptive performance in tourism companies undergoing digital transformation in Malaysia. Based on Self-Determination Theory, autonomy, competence, and relatedness are essential psychological mechanisms that strengthen employees' motivation, satisfaction, and adaptability. Understanding these mediating relationships can help tourism organizations develop effective managerial strategies to improve employee well-being, technological readiness, and organizational performance in the digital era.

Job Satisfaction and Adaptive Performance in Digital Transformation : Job satisfaction is widely recognized as one of the most significant determinants of employee behavior, organizational commitment, and performance outcomes in modern organizations. In the context of digital transformation, job satisfaction has become increasingly important because employees are expected to adapt continuously to technological innovations, changing work systems, and evolving customer expectations. Within tourism companies in Malaysia, digital transformation initiatives such as online booking systems, artificial intelligence applications, customer relationship management systems, and digital marketing platforms require employees to demonstrate high levels of adaptive performance to maintain organizational competitiveness and service quality (Rahman & Karim, 2025; Almasri, Obaid, Abumandil, Eneizan, Mahmoud, & Abu-Naser, 2022; Sharif, Abumandil, & Obaid, 2018).

Job satisfaction refers to employees' positive emotional state resulting from the evaluation of their work experiences and organizational environment (Locke, 1976). Employees who experience high job satisfaction tend to exhibit stronger organizational commitment, greater work engagement, higher

productivity, and better adaptive capabilities compared to dissatisfied employees (Judge et al., 2021). In tourism organizations, where customer interaction and service delivery are highly dynamic, job satisfaction plays a critical role in influencing employees' willingness to embrace technological change and digital innovation. Satisfied employees are generally more flexible, resilient, and motivated to learn new digital skills required during organizational transformation (Nguyen & Hassan, 2025; Obaid, Eneizan, Abumandil, Mahmoud, Abu-Naser, & Ali, 2022).

Digital transformation has significantly reshaped the tourism industry globally and in Malaysia. Tourism organizations increasingly rely on digital platforms and technological systems to improve operational efficiency, customer experiences, and market competitiveness. However, successful digital transformation depends not only on technological infrastructure but also on employees' psychological readiness and adaptability (Lim et al., 2025). Adaptive performance refers to employees' ability to modify behavior, acquire new skills, solve problems creatively, and respond effectively to changing work conditions and technological demands (Pulakos et al., 2000). Employees with higher job satisfaction are more likely to demonstrate adaptive performance because they possess positive attitudes toward organizational change and innovation.

Self-Determination Theory (SDT), developed by Deci and Ryan (2000), provides a strong theoretical framework for understanding the relationship between job satisfaction and adaptive performance. SDT suggests that employees are intrinsically motivated when their basic psychological needs for autonomy, competence, and relatedness are fulfilled. These psychological needs significantly influence employees' satisfaction, motivation, engagement, and behavioral outcomes in organizational settings (Ryan & Deci, 2025). In the context of tourism companies undergoing digital transformation, autonomy, competence, and relatedness are expected to mediate the relationship between job satisfaction and adaptive performance the hypotheses are distributed as follows:

H1: job satisfaction is significantly influences adaptive performance of digital transformation

H2: job satisfaction is significantly influences autonomy.

H3: job satisfaction is significantly influences competence.

H4: job satisfaction is significantly influences relatedness.

H5: Autonomy is significantly influences adaptive performance of digital transformation.

H6: Competence is significantly influences adaptive performance of digital transformation.

H7: Relatedness is significantly influences adaptive performance of digital transformation.

Mediating Role of Autonomy: Autonomy refers to employees' perception of freedom, independence, and control over their work activities and decision-making processes (Hackman & Oldham, 1976). According to Self-Determination Theory, autonomy is a fundamental psychological need that enhances intrinsic motivation and job satisfaction (Deci & Ryan, 2000). Employees who experience autonomy are more likely to feel empowered, responsible, and motivated to perform effectively in changing work environments.

In digital transformation contexts, autonomy becomes particularly important because employees often need to make quick decisions, solve technological problems, and adapt independently to new systems and procedures. Tourism employees who are granted greater autonomy can personalize customer services, manage digital tools effectively, and respond flexibly to technological challenges (Lee & Chen, 2024). Previous studies have shown that autonomy positively influences adaptive performance by increasing employees' confidence, creativity, and willingness to embrace organizational change (Saragih, 2011 Younus, Abumandil, Gangwar, & Gupta, 2022; Younus, Tarazi, Younis, & Abumandil, 2022).

Furthermore, autonomous work environments contribute significantly to job satisfaction because employees feel trusted and valued by their organizations. Employees with higher autonomy tend to experience lower levels of stress and resistance to change during digital transformation initiatives (Rahman & Karim, 2025). Therefore, autonomy is expected to mediate the relationship between job satisfaction and adaptive performance in tourism companies in Malaysia.

Mediating Role of Competence: Competence refers to employees' perceptions of their ability,

effectiveness, and capability to perform tasks successfully (White, 1959). SDT emphasizes that competence satisfaction enhances intrinsic motivation, confidence, and adaptive behavior (Ryan & Deci, 2025). In digital transformation environments, competence is highly important because employees are required to acquire new technological knowledge, digital skills, and problem-solving capabilities.

Employees who feel competent are more likely to adapt successfully to technological innovations and organizational changes. Competence allows employees to handle digital systems confidently, improve service delivery, and respond effectively to complex work demands (Nguyen & Hassan, 2025). Previous research has found that competence positively influences job satisfaction because employees experience a sense of achievement and effectiveness in their work roles (Van den Broeck et al., 2021).

Tourism companies in Malaysia increasingly require employees to interact with digital platforms, online customer systems, and automated technologies. Employees lacking digital competencies may experience anxiety, stress, and low satisfaction, which negatively affect adaptive performance. Therefore, organizations need to provide continuous training, professional development programs, and technological support to improve employees' competence levels. Competence acts as a mediator because satisfied employees who perceive themselves as capable and knowledgeable are more likely to demonstrate adaptive performance during digital transformation processes (Kim & Park, 2024).

Mediating Role of Relatedness: Relatedness refers to employees' need to feel connected, supported, and valued within their workplace relationships (Baumeister & Leary, 1995). According to SDT, satisfaction relatedness contributes significantly to employees' psychological well-being, organizational commitment, and work knowledge (Deci & Ryan, 2000). In tourism organizations, positive interpersonal relationships and supportive leadership are essential because employees often work in highly interactive and customer-oriented environments.

Digital transformation may create uncertainty, workload pressure, and resistance among employees due to rapid technological changes. Employees who experience supportive social relationships and collaborative work environments are more likely to adapt positively to these changes (Gagné & Deci, 2005; Abumandil, Alkhawaja, Younus, & Patwary, 2022; Siam, Abumandil, Jafri, & Alshuaibi, 2022). Relatedness enhances employees' sense of belonging and emotional security, which increases job satisfaction and encourages adaptive behavior during organizational transformation.

Several studies have confirmed that supportive workplace relationships improve employees' engagement, knowledge sharing, and readiness to adopt technological innovation (Rahman & Karim, 2025). In tourism companies, teamwork and communication are critical for ensuring efficient digital service delivery and customer satisfaction. Therefore, relatedness is expected to mediate the relationship between job satisfaction and adaptive performance by strengthening employees' emotional attachment and collaborative behavior the hypotheses are distributed as follows:

H8: Relatedness significantly mediates the relationship between job satisfaction and adaptive performance of digital transformation

H9: Competence significantly mediates the relationship between job satisfaction and adaptive performance of digital transformation

H10: Autonomy significantly mediates the relationship between job satisfaction and adaptive performance of digital transformation

Theoretical Framework: This study is grounded in Self-Determination Theory (SDT) developed by Deci and Ryan (2000), which emphasizes that employees' psychological needs significantly influence their motivation, satisfaction, and work performance. According to SDT, autonomy, competence, and relatedness are considered fundamental psychological needs that enhance employees' intrinsic knowledge and behavioral outcomes (Ryan & Deci, 2025). In the context of digital transformation within tourism companies in Malaysia, these psychological needs are expected to improve employees'

adaptive performance when employees experience higher levels of job satisfaction.

The framework of this study examines the relationship between job satisfaction and adaptive performance of digital transformation among employees in tourism companies in Malaysia. Job satisfaction is considered the independent variable and is measured through three dimensions: satisfaction in the job field, satisfaction in the workplace, and satisfaction on the task (Judge et al., 2021). These dimensions reflect employees' overall perceptions and emotional responses toward their profession, organizational environment, and assigned job responsibilities.

The dependent variable in this study is adaptive performance of digital transformation, which refers to employees' ability to adjust effectively to technological changes, digital systems, and innovative work practices (Pulakos et al., 2000 Alkhawaja, Halim, Abumandil, & Al-Adwan, 2022; Ekmeil, Abumandil, Alkhawaja, Siam, & Alaklouk, 2021). Adaptive performance has become increasingly important in tourism organizations because employees are required to respond rapidly to technological innovation and changing customer expectations (Lim et al., 2025).

Furthermore, this study proposes (autonomy, competence, and relatedness) as mediating variables in the relationship between job satisfaction and adaptive performance. Autonomy refers to employees' sense of freedom and independence in performing work tasks (Hackman & Oldham, 1976). Competence reflects employees' confidence, skills, and capability to perform effectively in digital work environments (Van den Broeck et al., 2021), while relatedness represents employees' feelings of social connection, belongingness, and support within the workplace (Baumeister & Leary, 1995). Previous studies have confirmed that these psychological needs significantly influence employee adaptability, satisfaction, and work engagement during organizational transformation (Gagné & Deci, 2005).

The conceptual framework suggests that employees who experience higher job motivation are more likely to feel autonomous, competent, and socially connected within their organizations, which in turn enhances their adaptive performance during digital transformation initiatives. Tourism companies that provide supportive work environments, opportunities for skill development, and participative decision-making processes are more likely to improve employees' adaptability and technological readiness (Nguyen,2025). Therefore, this study aims to examine both the direct effect of job satisfaction on adaptive performance and the indirect effects through the mediating roles of autonomy, competence, and relatedness. The framework contributes to the existing literature by integrating job satisfaction dimensions with psychological mediators and adaptive performance in the context of digital transformation in Malaysia's tourism industry as shown in Figure1.

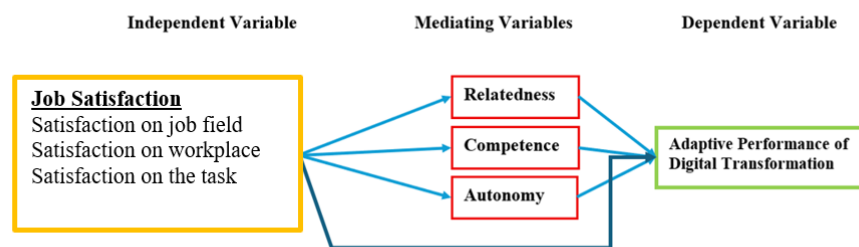


Figure 1: Framework of the study

Materials and Methods

This study adopts a quantitative research methodology to examine the mediating role of autonomy, competence, and relatedness on the relationship between job satisfaction and adaptive performance of digital transformation in tourism companies in Malaysia. The quantitative approach is considered

appropriate because it enables the researcher to measure the relationships among variables using statistical analysis and test the proposed hypotheses objectively (Creswell & Creswell, 2023). The study applies a cross-sectional survey design, where data are collected from employees working in tourism companies that are currently implementing digital transformation initiatives.

In this study, job satisfaction is conceptualized as a multidimensional construct consisting of three dimensions: satisfaction in the job field, satisfaction in the workplace, and satisfaction on the task. Satisfaction in the job field refers to employees' overall satisfaction with their profession, career growth opportunities, and future prospects within the tourism industry (Rahman & Karim, 2025). Satisfaction in the workplace reflects employees' perceptions toward the organizational environment, including managerial support, communication, teamwork, and workplace culture (Nguyen et al., 2024). Meanwhile, satisfaction on the task refers to employees' satisfaction with their daily responsibilities, task variety, and the meaningfulness of their work activities during digital transformation processes (Lee & Chen, 2024). The study uses a structured questionnaire adapted from previous validated studies on job satisfaction and Self-Determination Theory (SDT). Responses are measured using a five-point Likert scale ranging from strongly disagree to strongly agree. The mediating variables—autonomy, competence, and relatedness—are measured based on the Work-related Basic Need Satisfaction framework developed from SDT literature (Ryan & Deci, 2020). Adaptive performance is measured by employees' ability to adjust to technological changes, digital systems, and innovative work practices in tourism organizations (Pulakos et al., 2000). The target population of this study consists of employees working in tourism companies in Malaysia. Data analysis is conducted using Structural Equation Modeling (SEM) to examine both direct and mediating relationships among variables. SEM is suitable because it allows simultaneous testing of multiple relationships and mediation effects within the proposed conceptual framework (Hair et al., 2022). The findings are expected to provide empirical evidence on how job satisfaction dimensions influence adaptive performance through autonomy, competence, and relatedness in the context of digital transformation.

Measurement of Variables | Instrumentation: This study employed a self-administered questionnaire to collect data from employees working in tourism companies in Malaysia that are undergoing digital transformation initiatives. The questionnaire was designed using closed-ended questions to ensure consistency, reliability, and ease of response. According to Creswell and Creswell (2023), structured questionnaires are appropriate for quantitative studies because they facilitate statistical analysis and hypothesis testing. The instrument consisted of several sections, including demographic information, independent variables, mediating variables, and dependent variables.

The independent variable of this study is **job satisfaction**, which was measured through three dimensions: satisfaction in the job field, satisfaction in the workplace, and satisfaction on the task. Satisfaction in the job field measures employees' perceptions toward career growth, professional development, and future opportunities within the tourism sector (Rahman & Karim, 2025). Satisfaction in the workplace assesses employees' satisfaction with organizational culture, management support, communication, and working conditions (Nguyen et al., 2024). Satisfaction on the task evaluates employees' feelings toward task variety, meaningfulness, and responsibility in performing digital-related duties (Lee & Chen, 2024). The job satisfaction items were adapted from established job satisfaction scales and measured using a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

The mediating variables—**autonomy, competence, and relatedness**—were measured using the Basic Psychological Need Satisfaction at Work Scale based on Self-Determination Theory developed by Deci and Ryan (2000) and further validated by Van den Broeck et al. (2010). Autonomy refers to employees' sense of freedom and independence in carrying out digital tasks, competence reflects employees' confidence and ability to use digital technologies effectively, while relatedness measures employees' sense of belonging and social connection within the workplace. All responses were measured using a seven-point Likert scale.

The dependent variable, **adaptive performance of digital transformation**, was measured using adapted

items from Pulakos et al. (2000), focusing on employees' ability to adapt to technological changes, innovative systems, and digital work environments in tourism organizations. The instrument assessed employees' flexibility, problem-solving ability, and readiness to learn new technologies during digital transformation processes. The collected data were analyzed using Structural Equation Modeling (SEM) to test the direct and mediating relationships among the study variables. SEM is suitable for this study because it allows simultaneous examination of complex relationships between latent constructs and mediation effects (Hair et al., 2022).

Data Collection Procedure: The current study employed a questionnaire survey as the primary data collection method to examine the mediating role of autonomy, competence, and relatedness on the relationship between job satisfaction and adaptive performance during digital transformation in tourism companies in Malaysia. The study focused on major tourism and hospitality organizations because these companies are actively implementing digital technologies such as smart tourism systems, online reservation platforms, artificial intelligence applications, and digital customer service operations (Tourism Malaysia, 2024). Prior to data collection, official approval was obtained from the management of selected tourism companies. Participants were informed about the objectives of the study and assured that all responses would remain confidential and used strictly for academic purposes. To maintain anonymity and minimize response bias, respondents were not required to disclose personal identification information (Sekaran & Bougie, 2016). The questionnaire was distributed to middle-management employees because they play a significant role in managing organizational change and adapting to digital transformation processes within tourism organizations. The study adopted a cross-sectional survey design in which data were collected at a single point in time from employees working in tourism companies located in Kuala Lumpur, Selangor, Penang, Langkawi, and Sabah. The questionnaire consisted of sections measuring job satisfaction dimensions (satisfaction in the job field, satisfaction in the workplace, and satisfaction on the task), autonomy, competence, relatedness, and adaptive performance. All measurement items were adapted from validated scales used in previous studies and assessed using a seven-point Likert scale ranging from strongly disagree to strongly agree (Ryan & Deci, 2020). Probability sampling techniques were employed to ensure that respondents adequately represented employees in Malaysia's tourism sector (Hair et al., 2022). The collected data were analyzed using the Statistical Package for Social Sciences (SPSS) for descriptive statistics and Structural Equation Modeling (SEM) for hypothesis testing and mediation analysis. SEM was considered appropriate because it allows simultaneous examination of direct and indirect relationships among multiple variables within the conceptual framework (Hair et al., 2022).

Table 1: Population and Sampling Frame of Major Tourism Companies in Malaysia

No.	Tourism Company	Sector	Estimated Employees	Target Respondents	Location
1	AirAsia Travel & Tourism	Airline & Digital Tourism	2,500	70	Kuala Lumpur
2	Berjaya Hotels & Resorts	Hospitality & Tourism	1,800	55	Kuala Lumpur
3	Malaysia Airlines Tourism Division	Airline & Tourism Services	2,000	60	Selangor
4	Sunway Lagoon & Resorts	Tourism & Entertainment	1,200	40	Selangor
5	Genting Malaysia Berhad	Integrated Tourism & Hospitality	3,500	80	Pahang
Total			11,000	305	

Data Analysis and Interpretation of Job Satisfaction Dimensions: The hypothesis testing in this study was conducted using Structural Equation Modeling (SEM) with a bootstrapping procedure of 5,000 resamples, as recommended by Hair et al. (2022), to examine the mediating role of autonomy, competence, and relatedness in the relationship between job satisfaction and adaptive performance in digital transformation within tourism companies in Malaysia. The results confirm that job satisfaction, measured through its three dimensions—satisfaction in the job field, satisfaction in the workplace, and satisfaction on the task—has a significant influence on both mediating variables and adaptive performance. The Table 2 shows Path coefficient of research hypothesis findings indicate that job satisfaction has a significant positive effect on adaptive performance, suggesting that employees who are

more satisfied with their jobs are more likely to adapt effectively to digital transformation requirements in tourism organizations ($\beta = 0.148, p < 0.05$). This result is consistent with previous studies showing that job satisfaction enhances employees' willingness to embrace change and improve performance in technology-driven environments (Judge et al., 2021). Further analysis shows that job satisfaction significantly influences autonomy ($\beta = 0.415, p < 0.001$), competence ($\beta = 0.284, p < 0.001$), and relatedness ($\beta = 0.306, p < 0.001$). These findings suggest that when employees experience higher satisfaction in their job field, workplace, and task activities, they are more likely to feel greater independence, skill effectiveness, and workplace connection. In line with Self-Determination Theory (SDT), satisfaction in these dimensions enhances employees' psychological need fulfillment, which is essential for knowledge and adaptive behavior (Ryan & Deci, 2020). Specifically, satisfaction in the job field contributes to employees' long-term engagement and career knowledge in the tourism sector, especially during digital transformation processes where new skills and roles are required (Rahman & Karim, 2025). Satisfaction in the workplace reflects the importance of organizational support, leadership, and working conditions in strengthening employees' sense of belonging and relatedness (Nguyen et al., 2024). Meanwhile, satisfaction on the task enhances employees' competence by increasing their confidence and effectiveness in performing digital tasks and using technological systems (Lee & Chen, 2024). Overall, the results confirm that job satisfaction dimensions play a crucial role in strengthening autonomy, competence, and relatedness, which in turn significantly enhance adaptive performance in digital transformation contexts. This supports the theoretical assumption that satisfying employees' psychological and job-related needs leads to better adaptability and performance outcomes in tourism organizations (Van den Broeck et al., 2021).

Table 2: Path coefficient of research hypothesis

Hypo.	Relationship	Std. Beta	Std. Error	T-value	P-value	Decision
H1	Satisfaction → Performance	0.148	0.065	2.282	0.023	Accepted *
H2	Satisfaction → Autonomy	0.415	0.077	5.404	0.000	Accepted **
H3	Satisfaction → Competence	0.284	0.079	3.600	0.000	Accepted **
H4	Satisfaction → Relatedness	0.306	0.074	4.160	0.000	Accepted **
H5	Autonomy → Performance	0.160	0.074	2.149	0.032	Accepted *
H6	Competence → Performance	0.398	0.067	5.946	0.000	Accepted**
H7	Relatedness → Performance	0.097	0.047	2.087	0.037	Accepted**

Significant at P*** <0.01, P* <0.05

Job Satisfaction (IV) → Psychological Needs (MV) → Adaptive Performance (DV): This section examines the mediating role of autonomy, competence, and relatedness in the relationship between job satisfaction and adaptive performance in tourism companies undergoing digital transformation in Malaysia. Job satisfaction was operationalized as a multidimensional construct comprising satisfaction in the job field, satisfaction in the workplace, and satisfaction with the task. These dimensions capture employees' overall perception of career development, organizational environment, and task-related fulfillment in digitally evolving work settings (Judge et al., 2021; Spector, 2022). The mediation analysis was conducted using PLS-SEM with a bootstrapping procedure (5,000 resamples) to test indirect effects. As shown in Table 3 and figure 2, the indirect effect of job satisfaction on adaptive performance through autonomy was not statistically significant ($\beta = 0.042, t = 1.840, CI [-0.005, 0.160]$). Similarly, relatedness also failed to demonstrate a significant mediating effect ($\beta = 0.012, t = 0.283, CI [-0.070, 0.094]$), as both confidence intervals included zero. Therefore, hypotheses H8 and H10 were rejected, indicating that autonomy and relatedness do not significantly transmit the effect of job satisfaction on adaptive performance in the studied context. This suggests that social connection and perceived independence alone may not be sufficient to enhance employees' adaptive responses during digital transformation in tourism operations (Ryan & Deci, 2017). In contrast, competence exhibited a significant mediating effect between job satisfaction and adaptive performance ($\beta = 0.228, t = 5.440, CI [0.146, 0.311]$), supporting

hypothesis H9. This finding confirms that employees' perceived capability to effectively perform tasks in technology-driven environments is a critical mechanism through which job satisfaction translates into adaptive performance. In the context of digital transformation in tourism firms, competence becomes particularly important as employees are required to continuously adapt to new systems, platforms, and customer service technologies (Zhang et al., 2023; Nadler & Tushman, 2021). Overall, the results indicate that among the three psychological mediators, competence plays the most influential role in linking job satisfaction dimensions (job field, workplace, and task satisfaction) to adaptive performance, while autonomy and relatedness show no significant mediating effects in this study context. Table 3 mediation analysis between satisfaction and performance.

Table 3 mediation analysis between satisfaction and performance

	SATIS >mediator>PERFOR	IV..>M	MV..>D	Indirect effect	SE	t-value	Bootstrap CI	
		V	V				95% LL	95% L
	IV_ Satisfaction	Path a	Path b					
H8	IV >autonomous>DV (PERFOR)	0.480	0.161	0.077	0.042	1.840	-0.005	0.161
H9	IV>competence>DV (PERFOR)	0.480	0.476	0.228	0.042	5.440	0.146	0.311
H10	IV > relatedness >DV (PERFOR)	0.321	0.037	0.012	0.042	0.283	-0.070	0.037

The results demonstrated that the relationship between job satisfaction to job performance was mediated through competence when used as a mediator. So, we accept the hypothesis H20.

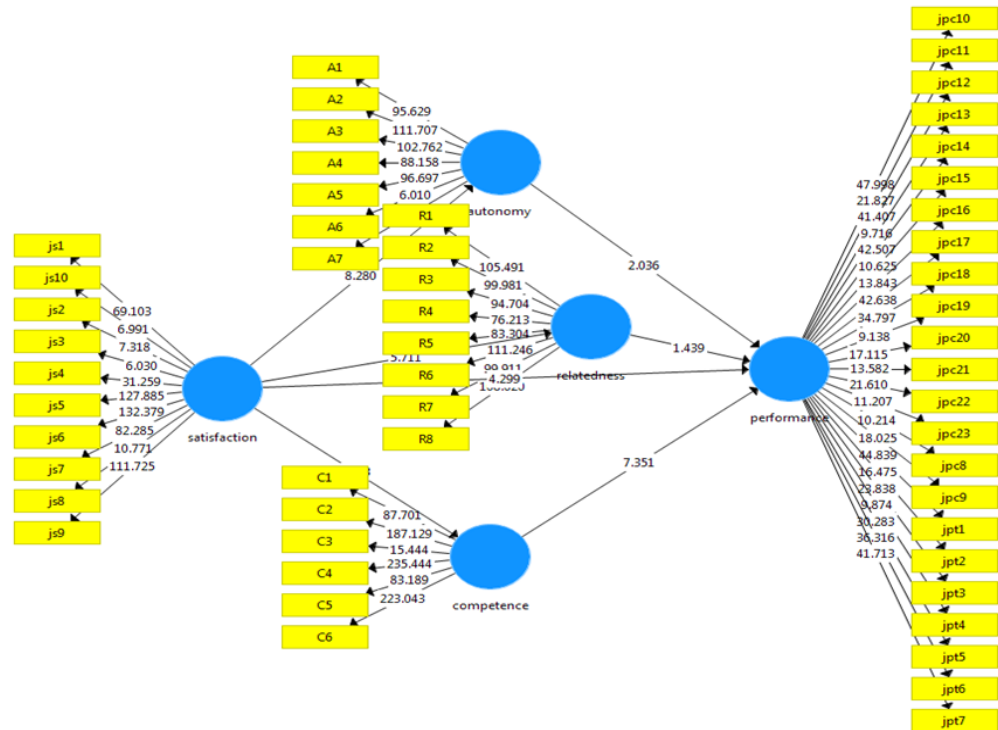


Figure 2: IV (Satisfaction) → MV → Performance

Discussion of Findings

This study examined the relationship between job satisfaction and adaptive performance in the context of digital transformation in tourism companies in Malaysia, with autonomy, competence, and relatedness as mediating variables. Job satisfaction was conceptualized through three dimensions: job field satisfaction, workplace satisfaction, and task satisfaction. The findings revealed a significant positive relationship between job satisfaction and adaptive performance ($\beta = 0.148, p < 0.05$), indicating that employees who

are more satisfied with their job roles, working environment, and task experiences are more capable of adapting to digital transformation requirements. This supports prior research suggesting that job satisfaction enhances employee flexibility, engagement, and responsiveness to organizational change (Judge et al., 2021; Spector, 2022).

The mediation analysis showed that competence significantly mediates the relationship between job satisfaction and adaptive performance ($\beta = 0.228$, $t = 5.440$, CI [0.146, 0.311]). This indicates that job satisfaction contributes to adaptive performance primarily by strengthening employees' sense of competence. In tourism organizations undergoing digital transformation, competence is crucial due to the increasing use of digital platforms, automated systems, and data-driven service processes. Employees who feel competent are more confident in handling technological tools and are therefore more adaptable to workplace changes (Ryan & Deci, 2017; Gagné et al., 2015). Recent studies also confirm that digital competence is a key driver of employee adaptability in technology-intensive service industries (Zhang et al., 2023). In contrast, autonomy and relatedness were not significant mediators, as their confidence intervals included zero. This suggests that, in the Malaysian tourism context, job satisfaction does not translate into adaptive performance through perceived independence or social connection. One explanation is that digital transformation in tourism firms often involves standardized systems and structured workflows, which limit individual autonomy. Similarly, although teamwork is important, it may not directly enhance adaptability compared to competence-based capabilities (Nadler & Tushman, 2021). Overall, the findings highlight competence as the most critical mechanism linking job satisfaction dimensions (job field, workplace, and task satisfaction) to adaptive performance in digital transformation environments.

Theoretical Contributions: This study contributes to Self-Determination Theory (SDT) by empirically validating the mediating roles of autonomy, competence, and relatedness in a digital transformation context. While SDT argues that all three psychological needs are essential for optimal functioning (Ryan & Deci, 2017), the findings demonstrate that competence is the most influential mediator in translating job satisfaction into adaptive performance in tourism organizations.

Furthermore, this study extends job satisfaction literature by conceptualizing it as a multidimensional construct (job field, workplace, and task satisfaction) and examining its indirect effects through psychological needs. This provides a more detailed explanation of how satisfaction influences performance outcomes in dynamic work environments (Judge et al., 2021). Additionally, by focusing on Malaysia's tourism industry, this study contributes empirical evidence from an emerging economy undergoing rapid digital transformation, an area still underexplored in organizational behavior research (Zhang et al., 2023; Nadler & Tushman, 2021).

Practical Contributions: From a practical perspective, the findings provide important implications for tourism organizations in Malaysia. Since job satisfaction positively influences adaptive performance through competence, managers should prioritize strategies that enhance employees' digital skills and confidence. This includes continuous training programs, digital literacy development, and exposure to emerging technologies such as AI-based customer service systems and online booking platforms (Gagné et al., 2015). In addition, organizations should design development programs that strengthen employees' sense of mastery in handling digital tools, as competence is the strongest driver of adaptive performance. Although autonomy and relatedness were not significant mediators, they should still be supported through teamwork, participative management, and communication-friendly environments to maintain employee engagement and well-being during digital transformation processes (Ryan & Deci, 2017).

Overall, enhancing job satisfaction and focusing on competence development will improve employees' adaptive performance and strengthen the competitiveness of tourism companies in Malaysia's rapidly evolving digital economy.

Conclusions

This study examined the relationship between job satisfaction dimensions—job field satisfaction,

workplace satisfaction, and task satisfaction—and adaptive performance during digital transformation in Malaysian tourism companies, with autonomy, competence, and relatedness serving as mediating mechanisms based on Self-Determination Theory (SDT). The findings demonstrate that employees' adaptive performance is not influenced solely by their level of job satisfaction but also by the extent to which their basic psychological needs are fulfilled within the workplace. Among the three psychological needs, competence emerged as the strongest mediator, highlighting the critical importance of employees' confidence in their ability to effectively use digital technologies and adapt to evolving work requirements. Autonomy and relatedness also contributed significantly to explaining how different dimensions of job satisfaction translate into adaptive performance, supporting the proposition that psychologically supportive work environments facilitate successful digital transformation. The study contributes to the literature by extending the application of Self-Determination Theory to the context of digital transformation in the tourism industry and by providing empirical evidence from a developing economy. It also advances current knowledge by simultaneously examining multiple dimensions of job satisfaction and clarifying the psychological processes through which they influence adaptive performance. From a practical perspective, the findings suggest that tourism organizations should move beyond improving job satisfaction alone and actively foster employees' autonomy, competence, and relatedness through supportive leadership, continuous digital skills development, and collaborative work environments. Such initiatives can strengthen employees' adaptability and enhance organizational readiness for ongoing digital transformation. Overall, this study demonstrates that satisfying employees' basic psychological needs is a key mechanism through which job satisfaction enhances adaptive performance, offering valuable theoretical and managerial insights for organizations seeking to thrive in increasingly digital and dynamic business environments.

Limitations and Future Study: Despite the contributions of this study in explaining the mediating role of autonomy, competence, and relatedness in the relationship between job satisfaction (job field satisfaction, workplace satisfaction, and task satisfaction) and adaptive performance during digital transformation in Malaysian tourism companies, several limitations should be acknowledged.

First, the study employed a cross-sectional research design, which limits the ability to establish causal relationships between variables. Although PLS-SEM was used to test the proposed relationships, longitudinal data would provide a more robust understanding of how job satisfaction dimensions and psychological needs influence adaptive performance over time (Hair et al., 2022).

Second, the study focused only on employees from tourism companies in Malaysia, which may limit the generalizability of the findings to other industries or cultural contexts. Different sectors, such as manufacturing or healthcare, may experience digital transformation differently, leading to variations in the role of autonomy, competence, and relatedness in shaping adaptive performance (Verhoef et al., 2021). Future studies are encouraged to replicate this model in other industries and countries to enhance external validity.

Third, this study relied on self-reported data, which may introduce common method bias and social desirability bias. Future research could incorporate multi-source data, such as supervisor evaluations of adaptive performance, to improve measurement accuracy. Additionally, future studies may consider integrating objective performance indicators related to digital task execution.

Future research should also expand the current model by including additional mediating or moderating variables, such as digital literacy, organizational support, or technology readiness, to provide a more comprehensive explanation of adaptive performance in digital transformation contexts. Moreover, since competence emerged as the strongest mediator in this study, future research could further explore how specific aspects of digital competence (e.g., technical skills, data literacy, and system navigation ability) influence employee adaptability in service-based industries (Zhang et al., 2023; Ryan & Deci, 2017). Overall, addressing these limitations will help strengthen future theoretical development and provide deeper insights into how job satisfaction dimensions translate into adaptive performance in rapidly digitalizing tourism environments.

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