

# Leveraging Autonomy, Feedback, and Social Support to Enhance Work Engagement and Mitigate Turnover Intentions: Evidence from Selected Services Sector in Malaysia

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To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v15-i1/24132> DOI:10.6007/IJARBS/v15-i1/24132

**Published Date:** 18 January 2025

## Abstract

This study examines the impact of job resources—autonomy, feedback, and social support—on work engagement (WE) and investigates the subsequent influence of WE on turnover intentions (TI) among employees in Malaysia's selected Services sector. Guided by the Job Demands-Resources (JD-R) theory, this research extends existing knowledge by focusing on underexplored subsectors, including wholesale and retail trade, food and beverage, and accommodation. Employing a quantitative, cross-sectional survey approach, data were collected from 150 employees using a combination of online and pen-and-paper surveys. Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis revealed that autonomy, feedback, and social support significantly enhance WE, with social support emerging as the most influential predictor. Furthermore, WE demonstrated a negative relationship with TI, highlighting its role in mitigating employee TI. These findings contribute to the theoretical advancement of JD-R theory by validating its application in a non-Western, Services-oriented context. Practically, the study underscores the importance of fostering autonomy, delivering constructive feedback, and promoting social support to enhance employee WE and reduce TI. By addressing the unique challenges of Malaysia's Services sector, this research offers actionable insights for improving workforce resilience and organizational sustainability.

**Keywords:** Job Demands-Resources Theory, Work Engagement, Autonomy, Feedback, Social Support, Turnover Intention

## Introduction

The Services sector is a pivotal driver of Malaysia's economy, contributing significantly to its Gross Domestic Product (GDP) and providing employment to a substantial portion of the

workforce (DOSM, 2022). Comprising industries such as accommodation, food and beverage, and wholesale and retail trade, this sector not only underpins economic growth but also sustains the livelihoods of millions (DOSM, 2022). Its customer-centric nature places high demands on the workforce, emphasizing the importance of employee engagement for ensuring operational excellence and resilience (Sharma & Singh, 2021; Zainal, 2019). In a highly competitive global and regional landscape, cultivating robust levels of work engagement (WE) has become crucial for maintaining organizational success and fostering economic stability (Memon *et al.*, 2020; Othman *et al.*, 2021).

Work engagement, conceptualized as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli *et al.*, 2002), is widely recognized as a critical determinant of organizational performance. Empirical evidence consistently links WE to enhanced productivity, innovation, and organizational commitment, as well as reduced absenteeism and turnover intentions (Boonsiritomachai & Sud-On, 2022). Despite these benefits, Malaysia continues to grapple with challenges related to employee WE and turnover. Notably, Malaysia ranks below regional counterparts in WE, with an engagement score of 67%, significantly lower than nations such as India (89%) and Indonesia (86%) (Qualtrics, 2024). Furthermore, the country's employee retention rate of 57% trails the global average of 65%, underscoring the urgency of addressing these issues (Qualtrics, 2024).

Extant literature identifies job resources—including autonomy, feedback, and social support—as key antecedents of WE (Bakker *et al.*, 2023). These resources, framed within the Job Demands-Resources (JD-R) theory, are described as physical, psychological, or social factors that facilitate goal achievement, mitigate job demands, and promote personal growth (Bakker & Demerouti, 2017). Autonomy enhances decision-making capacity, feedback provides performance clarity, and social support fosters a sense of belonging, collectively activating motivational processes that drive WE (Hackman & Oldham, 1976; Kluger & DeNisi, 1996). However, the majority of research validating the positive effects of these job resources has been conducted in Western contexts or within specific sectors such as healthcare and education (e.g. Tahir & Hussein, 2018; Othman *et al.*, 2021), leaving significant gaps in understanding their applicability in Malaysia's diverse Services industries including wholesale and retail trade, food and beverage, and accommodation sectors.

Against this backdrop, which forms the motivation for this study, the current study addresses the identified gaps. Specifically, it aims to examine the influence of autonomy, feedback, and social support on WE within Malaysia's Services sector, focusing on the wholesale and retail trade, food and beverage, and accommodation subsectors. Furthermore, it investigates the role of WE in mitigating turnover intentions (TI), a critical challenge for Services-oriented industries. By leveraging the JD-R theory, this study seeks to extend its applicability to non-Western, Services-oriented contexts and provide actionable insights for practitioners aiming to enhance workforce engagement and retention. The subsequent sections detail the theoretical foundation, key constructs, and hypotheses that underpin this research.

## **Review of Literature**

### *Job Demands-Resources Theory*

The JD-R theory offers a robust framework for understanding the interplay between job characteristics and employee well-being and performance (Bakker & Demerouti, 2017).

Central to this theory are two constructs: job demands and job resources. Job demands represent aspects of work that require sustained physical or psychological effort, often leading to stress or burnout when excessive. In contrast, job resources are elements that help employees meet work demands, foster personal growth, and achieve work goals. Additionally, personal resources—individual characteristics such as self-confidence and resilience—play a pivotal role, reflecting employees' capacity to manage and influence their work environment effectively (Bakker *et al.*, 2023).

The JD-R theory operates through two primary processes (Bakker *et al.*, 2023). The health impairment process posits that excessive job demands deplete employees' energy, leading to stress and burnout. Conversely, the motivational process suggests that job resources enhance WE by fulfilling basic psychological needs for competence, autonomy, and relatedness, thereby promoting intrinsic and extrinsic motivation (Bakker *et al.*, 2023). This dual-process model underscores the importance of balancing job demands and resources to optimize employee outcomes. While job resources drive motivation and engagement, prolonged exposure to job demands without adequate resources can erode well-being and performance. Anchored in this theoretical framework, the present study examines how key job resources—autonomy, feedback, and social support—influence WE among employees in Malaysia's Services sector.

### *Work Engagement*

The concept of engagement was introduced by William Kahn (1990), who described it as employees' physical and emotional investment in their roles. Schaufeli *et al.* (2002) later defined WE as a positive, fulfilling work-related state characterized by vigor, dedication, and absorption. Vigor refers to energy and persistence in work; dedication includes a sense of purpose and pride; and absorption involves deep focus and enjoyment of tasks (Schaufeli *et al.*, 2002). WE has been associated with several positive outcomes, including high job performance, innovation, organizational commitment, and customer satisfaction (e.g. Al Badi *et al.*, 2023; Han *et al.*, 2022). Conversely, reduced WE has been linked to counterproductive behaviors, job withdrawal, and turnover intentions (e.g. Garg & Singh, 2020; Arokiasamy *et al.*, 2022). Positive work environment is deemed to promote greater work engagement as asserted by Hassan *et al.* (2022). Indeed, studies have identified various factors that enhance WE, such as servant leadership, self-efficacy, organizational support, social support, autonomy, and feedback (e.g. Azim & Al-Halawani, 2020; Lee *et al.*, 2019; Lim *et al.*, 2024b). However, researchers have also examined the impact of negative factors on WE. For example, Oliveira and Najnudel (2022) found that abusive leadership negatively influenced the WE of 172 Brazilian workers from various economic sectors. Similarly, Lim *et al.* (2024a) reported that work-family conflict reduced WE among 150 employees in selected Services sector in Klang Valley, Malaysia. Zhang *et al.* (2021) investigated the effects of perceived job stress and workload, revealing that these factors negatively impacted the WE of 1,040 nurses in Wuhan, China. Give the benefit of having greater WE, scholars have studies numerous job resources which give rise to it.

### *Job Resources*

Job resources are defined as the physical, psychological, social, or organizational aspects of a job that aid employees in achieving work goals, reduce the impact of job demands, and promote personal development (Demerouti *et al.*, 2001). According to the JD-R theory, job

resources serve both extrinsic and intrinsic motivational functions. Extrinsicly, they provide employees with the necessary tools and support to excel in their roles (Hakanen *et al.*, 2006). Intrinsicly, they foster learning, personal growth, and a sense of purpose, leading to greater engagement and satisfaction (Fernet *et al.*, 2012).

In the Services sector, autonomy, feedback, and social support are particularly crucial job resources. Autonomy empowers employees by allowing them to make decisions and address customer needs independently (Klingbyl & Chung-Yan, 2023). Feedback offers actionable insights into performance and areas for improvement, enabling continuous learning (Mullins *et al.*, 2020). Social support fosters a sense of belonging and mutual trust, mitigating workplace stressors and enhancing collaboration (Kossek *et al.*, 2011). While these resources have been shown to positively influence WE in Malaysia, such as in the healthcare (Tahir & Hussein, 2018) and education (Othman *et al.*, 2021) sectors, their impact on Malaysia's accommodation, food and beverage, and wholesale and retail subsectors remains underexplored. This study seeks to bridge this gap by providing empirical evidence on the role of these job resources in fostering WE within these specific industries.

### *Turnover Intentions*

Turnover intention, defined as an employee's conscious decision to leave their current organization (Tett & Meyer, 1993), has emerged as a critical area of focus for scholars and practitioners due to its profound implications for organizational sustainability and performance. High turnover rates can lead to a cascade of challenges, including the loss of institutional knowledge, increased recruitment and training costs, disruption of workflows, and diminished morale among remaining staff (Soeprapto *et al.*, 2024). Given these consequences, understanding the antecedents of turnover intention is essential for mitigating its adverse effects.

Several theoretical frameworks have been proposed to explain turnover intention. Mobley's (1977) intermediate linkage model identifies internal and external factors, such as dissatisfaction with job characteristics or environmental opportunities, as key predictors of turnover. Similarly, the cusp catastrophe model by Sheridan and Abelson (1983) conceptualizes turnover as a nonlinear process influenced by a combination of dissatisfaction and escalating stress levels. Lee and Mitchell's (1994) unfolding model emphasizes sudden "shock" events that trigger employees to reassess their attachment to the organization, adding a dynamic perspective to turnover research. These theories collectively underscore the multifaceted and complex nature of turnover intention.

The organizational repercussions of turnover intention are substantial. Financially, the replacement of employees often requires considerable investment in recruitment, onboarding, and training, which can strain organizational budgets (Climek *et al.*, 2024). Moreover, the departure of skilled employees disrupts team dynamics, potentially leading to decreased productivity and operational inefficiencies. Beyond financial implications, persistent turnover negatively affects the employer brand, eroding trust and loyalty among remaining employees and diminishing the organization's attractiveness to prospective talent (Ninroon *et al.*, 2020). These outcomes highlight the critical need for targeted interventions to retain key talent.

While financial incentives have traditionally been viewed as a means to reduce turnover, contemporary research increasingly emphasizes non-financial factors. Studies have identified leadership styles, opportunities for professional growth, job satisfaction, work-life balance, and organizational commitment as significant determinants of turnover intention (Hefny, 2021; Aman-Ullah *et al.*, 2024). These findings suggest that fostering a supportive and engaging work environment may be more effective in addressing turnover intention than relying solely on monetary rewards.

Within the framework of the JD-R theory, WE has been positioned as a critical predictor of turnover intention. The JD-R theory posits that job resources, such as autonomy, feedback, and social support, enhance WE by meeting employees' psychological needs for competence, autonomy, and relatedness (Bakker & Demerouti, 2017). Engaged employees, characterized by their vigor, dedication, and absorption, are more likely to exhibit organizational commitment and less likely to contemplate leaving their jobs (Cao & Chen, 2021; Cave *et al.*, 2023). This perspective aligns with studies demonstrating that high levels of WE are inversely related to turnover intention across various contexts, including education, healthcare, and Services sectors (e.g. Arokiasamy *et al.*, 2022; BowenXue *et al.*, 2024; McCarthy *et al.*, 2020; Ribeiro *et al.*, 2023)

While actual turnover behavior provides the ultimate measure of employee attrition, the practicality of capturing such data is often constrained by sample size and accessibility limitations. Turnover intention, therefore, serves as a reliable proxy, offering insights into employees' likelihood of leaving their organization (Griffeth *et al.*, 2000; Cho & Lewis, 2012).

## **Hypothesis Development**

### *Job Resources and Work Engagement*

According to Bakker and Demerouti (2017), job resources serve as motivational drivers, functioning either extrinsically by facilitating goal achievement and reducing job demands or intrinsically by fostering employees' personal growth and development. This dual role underscores the importance of job resources in enhancing employee well-being and engagement. Within this study, autonomy, feedback, and social support are examined as critical job resources influencing WE.

*Autonomy and WE.* Autonomy, defined as the extent of freedom and discretion employees have in determining how to perform their tasks, is a cornerstone of job design theories such as the JD-R and Job Characteristics Model (Hackman & Oldham, 1976). Autonomy empowers employees, fostering a sense of ownership and responsibility, which enhances their intrinsic motivation and engagement (Hackman & Oldham, 1976). This aligns with the motivational process posited by JD-R theory, where job resources like autonomy satisfy employees' need for competence and self-determination, thereby promoting engagement. Empirical evidence underscores the positive relationship between autonomy and WE. Mehta (2021) demonstrated that autonomy derived from remote work arrangements significantly predicted WE among IT professionals in India. Similarly, Tensay and Singh (2020) found that autonomy, as part of human resource management practices, was a significant driver of WE among public Services employees in Ethiopia. Van Dorssen-Boog *et al.* (2020) also highlighted that autonomy enhances intrinsic motivation and WE by allowing employees to find greater meaning in their work. Thus, it is hypothesized:

**H1a:** Autonomy is positively related to WE.

*Feedback and WE.* Feedback, or the degree to which employees receive information about their job performance, plays a pivotal role in guiding behavior and improving task efficiency. Within the JD-R framework, feedback is a vital job resource that not only aids in achieving work goals but also enhances intrinsic motivation by fulfilling the basic psychological need for competence (Bakker & Demerouti, 2007). Numerous studies validate the positive impact of feedback on WE. For example, Lee *et al.* (2019) revealed that feedback positively influenced WE among Malaysian employees by enhancing goal clarity and performance. Arokiasamy *et al.* (2022) and BowenXue *et al.* (2024) further emphasized the importance of feedback in sustaining engagement across various professional settings. These findings corroborate the JD-R theory's assertion that feedback activates motivational processes, leading to higher WE. Therefore, the following hypothesis is proposed:

**H1b:** Feedback is positively related to WE.

*Social Support and WE.* Social support, encompassing emotional and instrumental assistance from supervisors and peers, is a fundamental job resource within the JD-R framework. It fulfills employees' psychological need for relatedness, thereby fostering engagement and resilience in the face of challenges (Bakker & Demerouti, 2017). Research consistently highlights the positive relationship between social support and WE. Xanthopoulou *et al.* (2008) demonstrated the role of coworker support in enhancing engagement among airline employees, while Wolter *et al.* (2019) found similar effects among German police officers. In the healthcare sector, Cao and Chen (2021) observed that social support from colleagues and managers significantly boosted WE among nurses. Such findings underscore the salience of social support in activating motivational pathways, as outlined in the JD-R theory. Hence, the following hypothesis is posited:

**H1c:** Social support is positively related to WE.

#### *Work Engagement and Turnover Intentions*

According to the JD-R theory, the motivational process is activated when there are sufficient job resources, leading to work engagement (Bakker & Demerouti, 2017). Work engagement is characterized by vigor, dedication, and absorption (Schaufeli *et al.*, 2002). In other words, a work-engaged employee exhibits greater energy, enthusiasm, and immersion in their work (Schaufeli *et al.*, 2002), which in turn leads to positive motivational and job-related outcomes. Employee with abundant organizational resources, such as autonomy, feedback, and social support, may promote a sense of importance and security in their current workplace and reduce the likelihood of seeking employment elsewhere (Memon *et al.*, 2016). Furthermore, work-engaged employees are characterized by enthusiasm, energy, motivation, confidence, and happiness, which can also reduce the likelihood of leaving the organization (Karatepe & Ngeche, 2012; Mulang, 2022). The negative relationship between WE and TI has been empirically validated across diverse contexts. For instance, earlier study by Schaufeli and Bakker (2004) found that engaged employees in Dutch Services organizations were less likely to consider quitting. Similarly, a recent study by McCarthy *et al.* (2020) observed that WE reduced TI among U.S. federal employees, while Memon *et al.* (2021) reported similar findings in the Malaysian oil and gas sector. These studies highlight the motivational benefits of WE, which fosters organizational commitment and reduces employees' intentions to leave. Based on these theoretical and empirical insights, the following hypothesis is proposed:

**H2:** WE is negatively related to TI.

### Conceptual Framework

This study aims to examine the influence of job resources—specifically autonomy, feedback, and social support—on WE. Grounded in the JD-R theory, which posits that positive job resources foster WE through a motivational pathway (Bakker *et al.*, 2023), the first set of hypotheses proposes that job resources, namely autonomy (H1a), feedback (H1b), and social support (H1c), have a positive impact on WE. These relationships are illustrated by three solid arrows directly connecting each job resource to WE. Furthermore, the JD-R theory suggests that job resources not only enhance WE but also influence individual outcomes, such as TI (Bakker *et al.*, 2023). Based on this premise, the second hypothesis (H2) posits a negative relationship between WE and TI, indicating that higher levels of WE are associated with reduced TI. This relationship is depicted by a solid arrow linking WE to TI. The conceptual framework outlining these hypotheses is visually represented in Figure 1.

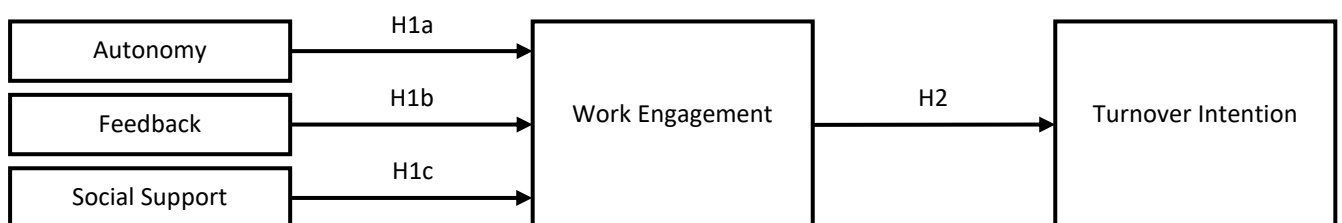


Figure 1. Conceptual framework

Source: Authors (2024).

### Research Methodology

This study adopts a postpositive perspective, starting with existing theories (i.e. JD-R theory) to test relationships using survey data. A quantitative approach was employed to investigate the effect of factors (i.e. autonomy, feedback and social support) on the outcomes (i.e. WE, and subsequently on TI).

#### *Participant and Data Collection*

Data were collected through a combination of pen-and-paper and online surveys, distributed to employees in the Services sector within Klang Valley, Malaysia. The study targeted the wholesale and retail trade, food and beverage, and accommodation subsectors, which collectively account for over 75% of employment within the Malaysian Services sector (DOSM, 2022). These subsectors were chosen due to their economic significance and relevance to the research objectives. Klang Valley, encompassing Selangor and Kuala Lumpur, was selected as the study region, contributing 25.9% and 24.8% to the Services sector GDP of these respective states (DOSM, 2022). As one of Malaysia's most densely populated urban areas, Klang Valley provides a diverse representation of Services sector employees, surpassing other urban centers such as Penang and Johor Bahru in demographic and economic diversity (Cai *et al.*, 2021).

*Common method variance.* To mitigate common method variance, several strategies recommended by Podsakoff *et al.* (2012) were implemented. The survey introduction explicitly stated that there were no right or wrong answers, assured participants of the

confidentiality of their responses, emphasized the voluntary nature of participation, and underscored organizational support for the study. Additionally, anonymity was preserved by requiring participants to submit completed surveys in sealed envelopes, which were handled exclusively by authorized researchers. For online responses, a secure survey platform ensured data confidentiality.

*Sampling approach.* Given the absence of a comprehensive sampling frame, a non-random purposive sampling method was adopted, as recommended by Saunders *et al.* (2023). Participants were selected based on their employment in the wholesale and retail trade, food and beverage, and accommodation subsectors, with a minimum Services tenure of six months to ensure familiarity with organizational dynamics. The list of participating organizations was sourced from reputable industry bodies, including the Malaysia Retailers Association (MRA), Malaysia Retailers Chain Association (MRCA), and the Ministry of Tourism, Arts, and Culture (MOTAC). These organizations collectively represent a wide spectrum of establishments across the targeted subsectors. The approach aligns with prior studies, such as Lim *et al.* (2024b), which also utilized these sources in their study to ensure representation of those selected Malaysia's Services sector. A random selection of organizations from these lists was made, and invitations to participate were sent via email.

*Sample size determination.* The required sample size was calculated using G\*Power software (version 3.1.9.6), which determined a minimum of 129 responses for adequate statistical power (Faul *et al.*, 2007). Anticipating a typical response rate of 35%, as observed in business and management research (Saunders *et al.*, 2023), a total of 370 surveys were distributed. Survey packages were hand-delivered to organizations that accepted the invitation, while those preferring an online option received a survey link via email.

*Data collection.* Human resource departments in participating organizations were instrumental in distributing the survey to eligible employees, including non-executives, executives, and managers. Respondents were given two weeks to complete the questionnaire. For pen-and-paper surveys, participants returned their completed responses in sealed envelopes, which were collected directly by the researchers. Online responses were securely captured via Google Forms, and the data were automatically tabulated.

Of the 370 questionnaires distributed, 150 useable responses were obtained, representing a 40.5% response rate after excluding incomplete or invalid submissions. The workforce is predominantly male (64%) and relatively young, with 68.7% aged below 40 years. Ethnically, Malays constitute the majority (75.3%), followed by Chinese (15.3%), Indians (6.7%), and others (2.7%). Most respondents are married (80.7%), with small family sizes, as 72.6% have two or fewer children. The sample is well-distributed across key Services subsectors, with 54% from Retail and Wholesale, 25.3% from Food and Beverage, and 20.7% from Accommodation. A significant portion (80.3%) has 1–10 years of Services, highlighting a workforce with moderate tenure. Non-executives (44.7%) and executives (29.3%) dominate the sample, while educational qualifications are concentrated at the diploma level (46.7%), followed by bachelor's degrees (26.7%). The demographic profile is summarized in Table 1.



Table 1

*Respondent's Demographic Profiles*

Characteristics	Information	Frequency (n)	Percentage (%)
<i>Gender</i>	Male	94	64.0
	Female	56	36.0
<i>Age</i>	21 – 30	40	26.7
	31 – 40	63	42.0
	41 – 50	35	23.3
	More than 50	12	8.0
<i>Race</i>	Malay	113	75.3
	Chinese	23	15.3
	Indian	10	6.7
	Others	4	2.7
<i>Marital Status</i>	Single	21	14.0
	Married	121	80.70
	Divorced / Separated	6	4.0
	Widowed	2	1.3
<i>Services Subsector</i>	Retail and Wholesale	81	54.0
	Food and Beverage	38	25.3
	Accommodation	31	20.7
<i>Number of children</i>	0	30	20.0
	1	44	29.3
	2	35	23.3
	3	26	17.3
	4	12	8.0
	5 or more	3	2.0
<i>Length of Service</i>	More than 6 months but less than 1 year	12	8.0
	1 – 5 years	54	36.3
	6 – 10 years	66	44.0
	More than 10 years	18	12.0
<i>Position</i>	Non-executive	67	44.7
	Executive	44	29.3
	First-line manager	32	21.3
	Middle-line manager	7	4.7
<i>Academic Qualification</i>	Master's degree	3	2.0
	Bachelor's degree	40	26.7
	Diploma	70	46.7
	STPM or equivalent	22	14.7
	SPM or equivalent	10	6.7
	Certificate	5	3.3

**Source:** Author (2024)

*Questionnaire and Measurements*

The survey was designed in both English and Bahasa Malaysia (the national language of Malaysia), to ensure clarity and accessibility for respondents. While most scales in the original instruments utilized seven-point Likert scales, the job demands-resources scale and turnover

intentions scale initially employed five-point and four-point scales, respectively. As recommended by Allen and Seaman (2007), Likert scales should ideally include a minimum of five response categories to capture nuanced responses, with broader ranges being preferable. To maintain consistency and comparability, all constructs in this study were standardized to a seven-point Likert scale.

*Work Engagement.* Work engagement was assessed using the 17-item Utrecht Work Engagement Scale (UWES) developed by Schaufeli *et al.* (2002). The scale measures three dimensions of WE: vigor, dedication, and absorption. Vigor was assessed with six items, including "At my work, I feel that I am bursting with energy." Dedication was measured using five items, such as "I find the work that I do full of meaning and purpose." Absorption was captured through six items, including "It is difficult to detach myself from my job." The UWES has been widely validated in prior studies, with Cronbach's alpha values consistently exceeding 0.70, indicating high reliability (e.g. Lim *et al.*, 2024a; Tomietto *et al.*, 2019). Responses were recorded on a seven-point scale ranging from "1 = Never" to "7 = Always."

*Job Resources.* Job resources—autonomy, feedback, and social support—were evaluated using items partially adapted from the Job Demands-Resources Scale (JDRS) developed by Jackson and Rothmann (2005). Autonomy was measured with six items, such as "Can you participate in decisions about the nature of your work?" Feedback was assessed through eight items, including "Do you know exactly what your direct supervisor thinks of your performance?" Social support was captured using three items, such as "Can you count on your colleagues when you come across difficulties in your work?" These scales have demonstrated robust reliability in prior studies, with Cronbach's alpha values of 0.90 for autonomy, 0.70 for feedback, and 0.90 for social support (Jackson & Beyers, 2021). Participants rated their job resources on a seven-point Likert scale ranging from "1 = Never" to "7 = Always."

*Turnover Intentions.* Turnover intentions were measured using the six-item Turnover Intention Scale (TIS-6) developed by Roodt (2004). This scale has shown strong reliability in prior research, with Cronbach's alpha values of 0.80 (Bothma & Roodt, 2013). Sample items include "How often have you considered leaving your job?" To improve data clarity and alignment with the overall scale, two reverse-coded items—"How satisfying is your job in fulfilling your personal needs?" and "How often do you look forward to another day at work?"—were rephrased to "How dissatisfying is your job in fulfilling your personal needs?" and "How often do you not look forward to another day at work?" All responses were recorded on a seven-point scale ranging from "1 = Never" to "7 = Always."

## Results

### *Common Method Variance Assessment*

Common method variance (CMV) is a potential source of bias in behavioral research, occurring when measurement methods exert a stronger influence on responses than the constructs under investigation. This phenomenon can lead to inflated relationships between variables, thereby compromising the validity of study findings (Podsakoff *et al.*, 2003). To evaluate the presence of CMV in this study, Harman's single-factor test was employed—a widely used diagnostic technique that determines whether a single factor accounts for the majority of variance in the data (Podsakoff *et al.*, 2003). As noted by Podsakoff and Organ

(1986), CMV is considered problematic if a single factor explains more than 50% of the total variance. The analysis was conducted using SPSS software (version 29.0) with an unrotated factor solution. Results indicated that the largest single factor accounted for 43.27% of the variance, which is well below the 50% threshold, suggesting that CMV is not a significant concern in this study.

Additionally, the researcher used full collinearity variance inflation factors (VIF) as recommended by Kock and Lynn (2012) to further evaluate CMV. The VIF values were 2.725 for absorption, 2.257 for autonomy, 2.207 for dedication, 1.520 for feedback, 1.915 for social support, 1.164 for turnover intention, and 2.116 for vigor. All these values are below the threshold of 3.33, confirming the absence of significant CMV (Kock, 2015). These findings provide confidence in the reliability of the data and justify proceeding with the partial least squares structural equation modeling (PLS-SEM) analysis for hypothesis testing.

#### *Measurement Model Assessment*

The initial step in evaluating the PLS-SEM involved assessing the measurement model to establish indicator reliability, internal consistency, convergent validity, and discriminant validity (Hair *et al.*, 2022). Indicator reliability was measured through indicator loadings, which quantify the variance explained by their respective constructs. Consistent with Hair *et al.* (2022), loadings above 0.708 were considered optimal, indicating that the construct explains more than 50% of the variance. Although three items (D5, A4, and A6) exhibited loadings below the threshold, they were retained as their Average Variance Extracted (AVE) exceeded 0.50, and no loadings fell below the deletion threshold of 0.40. Internal consistency reliability was examined using Composite Reliability (CR), with values for constructs like autonomy, feedback, social support, vigor, dedication, absorption, and turnover intention ranging from 0.882 to 0.933, surpassing the recommended threshold of 0.70 (Hair *et al.*, 2022). Additionally, Cronbach's alpha values between 0.829 and 0.926 further corroborated the reliability of the constructs. Convergent validity was assessed via the AVE, ensuring that each construct explained at least 50% of the variance in its indicators. AVE values across all constructs exceeded the 0.50 benchmark, indicating robust convergent validity. Discriminant validity, which verifies that constructs are conceptually distinct, was evaluated using the Heterotrait-Monotrait (HTMT) ratio of correlations. All HTMT values were below the conservative threshold of 0.85, confirming adequate discriminant validity (Henseler *et al.*, 2015). These findings collectively support the reliability and validity of the measurement model, as detailed in Tables 2 and 3.

Table 2

*Items Loading, Composite Reliability and Average Variance Extracted*

Construct	Items	Loadings	Cronbach's alpha	CR	AVE
Autonomy	Au1	0.846	0.903	0.949	0.673
	Au2	0.870			
	Au3	0.795			
	Au4	0.859			
	Au5	0.763			
	Au6	0.790			
Feedback	Fb1	0.821	0.926	0.933	0.660
	Fb2	0.733			
	Fb3	0.715			
	Fb4	0.851			
	Fb5	0.823			
	Fb6	0.825			
	Fb7	0.850			
	Fb8	0.866			
Social support	Ss1	0.913	0.880	0.882	0.806
	Ss2	0.908			
	Ss3	0.872			
Vigor	V1	0.814	0.879	0.883	0.622
	V2	0.815			
	V3	0.809			
	V4	0.757			
	V5	0.763			
	V6	0.773			
Dedication	D1	0.801	0.842	0.863	0.618
	D2	0.801			
	D3	0.847			
	D4	0.863			
	D5	<b>0.589</b>			
Absorption	A1	0.795	0.829	0.840	0.540
	A2	0.790			
	A3	0.782			
	A4	<b>0.651</b>			
	A5	0.720			
	A6	<b>0.658</b>			
Turnover intention	Ti1	0.881	0.922	0.933	0.720
	Ti2	0.899			
	Ti3	0.902			
	Ti4	0.900			
	Ti5	0.888			
	Ti6	0.891			

**Notes:** CR (Composite reliability); AVE (average variance extracted).

Table 3

*Heterotrait-Monotrait Ratio (HTMT) Matrix*

	Absorption	Autonomy	Dedication	Feedback	Social Support	Turnover Intention	Vigor
Absorption							
Autonomy	0.792						
Dedication	0.791	0.760					
Feedback	0.671	0.746	0.709				
Social Support	0.805	0.798	0.769	0.684			
Turnover Intention	0.626	0.559	0.586	0.456	0.618		
Vigor	0.839	0.707	0.688	0.543	0.782	0.587	

**Notes:** HTMT criterion < 0.850

*Higher-order construct (HOC) analysis.* This study examined the influence of autonomy, feedback, and social support on overall work engagement (WE), conceptualizing WE as a single, multidimensional construct rather than analyzing its individual dimensions (i.e. vigor, dedication, and absorption). To enhance parsimony and model clarity, WE was operationalized as a higher-order construct (HOC), consistent with the recommendations of Hair *et al.* (2022). Following prior research by Lim *et al.* (2024a), WE was modeled as a reflective-formative construct and analyzed using the two-stage approach proposed by Sarstedt *et al.* (2019).

In the initial stage, the lower-order constructs (LOCs) were evaluated through the reflective measurement model, where the dimensions of WE (i.e. vigor, dedication, and absorption) served as LOCs. The corresponding measurement model (Figure 1) depicts the LOC framework, emphasizing the multidimensional nature of WE.

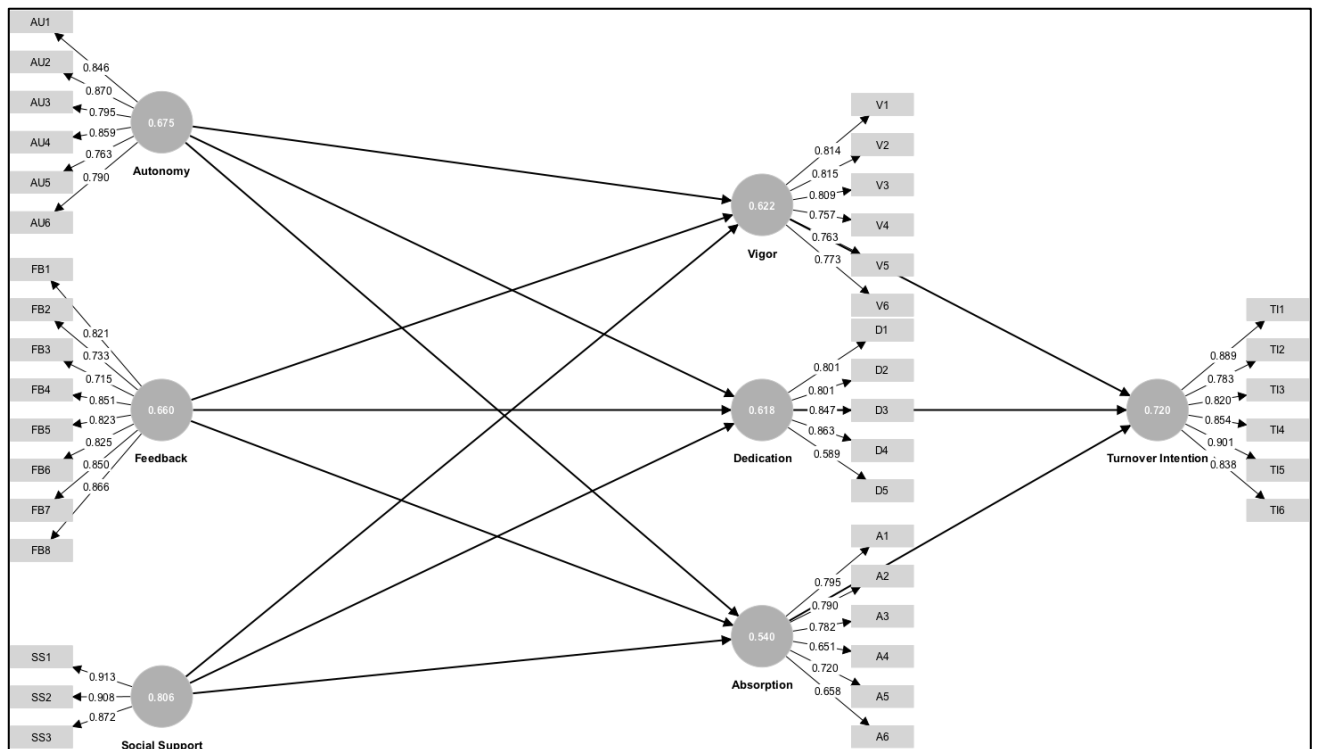


Figure 1. Measurement Model

Source: Authors (2024).

The second stage focused on evaluating the HOC using a formative measurement model. This process assessed convergent validity, collinearity, and the statistical significance of indicator weights. Convergent validity was tested using a single global item, as recommended by Cheah *et al.* (2018). Single-item constructs in redundancy analysis aim to encapsulate the core essence of the construct rather than exhaustively covering its dimensions (Hair *et al.*, 2017). The global item for WE was: “Overall, I feel energetic, dedicated, and immersed in my job.” Redundancy analysis demonstrated strong convergent validity, with a path coefficient of 0.815, surpassing the recommended threshold of 0.708 (Hair *et al.*, 2022). Collinearity diagnostics revealed variance inflation factor (VIF) values ranging from 1.959 to 2.590, well below the critical threshold of 5.0 (Hair *et al.*, 2022), indicating the absence of collinearity concerns. Bootstrapping with 10,000 subsamples (Cheah *et al.*, 2018) was used to assess the statistical significance of indicator weights. Results indicated that all three dimensions of WE—absorption (0.389), dedication (0.417), and vigor (0.326)—were statistically significant ( $\rho < 0.050$ ) contributors to the formative HOC as shown in Table 4. These findings validate the multidimensional nature of WE, demonstrating its effective representation as a higher-order construct informed by vigor, dedication, and absorption.

Table 4

*Assessment of Higher Order Construct*

HOC	LOC	CV	Outer VIF	Outer Weight	Std. Error	t-value	p-value
Work	Absorptio	0.81	2.590	0.389	0.086	4.530	0.000
	n	5					
engagemen	Dedicatio		1.959	0.417	0.065	6.437	0.000
t	n						
	Vigor		2.226	0.326	0.084	3.875	0.000

**Notes:** HOC (higher order construct), LOC (lower order construct), CV (convergent validity)

*Structural Model Assessment*

Following the confirmation of construct reliability and validity, the structural model was evaluated to examine the predictive capability and relationships between constructs (Hair *et al.*, 2022). The analysis began with an assessment of collinearity by calculating the variance inflation factor (VIF) values for predictor constructs. Collinearity is considered problematic when VIF values exceed the threshold of 5.00 (Hair *et al.*, 2022). In this study, the VIF values for autonomy (2.575), feedback (2.041), social support (2.199), and WE (1.000) were all below the critical threshold, indicating no severe collinearity issues. The model's predictive capability was assessed using the coefficient of determination ( $R^2$ ), which reflects the proportion of variance explained by the predictor variables. According to Hair *et al.* (2022),  $R^2$  values of 0.750, 0.500, and 0.250 signify substantial, moderate, and weak explanatory power, respectively. In this study, WE exhibited a moderate  $R^2$  value of 0.693, while TI had a weak explanatory power with an  $R^2$  value of 0.377. To further evaluate the impact of individual constructs, effect size ( $f^2$ ) was calculated, where values of 0.350, 0.150, and 0.020 denote substantial, medium, and trivial effects, respectively (Cohen, 1988). The results revealed that autonomy ( $f^2 = 0.150$ ) and social support ( $f^2 = 0.290$ ) had small effect sizes on WE, while feedback ( $f^2 = 0.038$ ) had a trivial effect. Conversely, WE had a substantial impact on TI ( $f^2 = 0.616$ ). The predictive relevance of the model was assessed using Stone-Geisser's  $Q^2$  value, with values greater than zero indicating predictive relevance (Geisser, 1974; Hair *et al.*, 2022; Stone, 1974). Employing the blindfolding procedure in SmartPLS, the  $Q^2$  values for WE (0.536) and TI (0.264) demonstrated the model's predictive capability for the endogenous constructs. Hypotheses were tested using bootstrapping with 10,000 resamples to estimate path coefficients and their statistical significance. Given the directional nature of the hypotheses, a one-tailed test with a critical  $t$ -value of 1.645 ( $\rho < 0.05$ ) was applied, in line with theoretical expectations (Hair *et al.*, 2022). The results indicated that autonomy significantly influenced WE ( $\beta = 0.341$ ,  $t = 4.305$ ,  $\rho < 0.001$ ), supporting H1a. Similarly, feedback had a significant positive effect on WE ( $\beta = 0.044$ ,  $t = 2.195$ ,  $\rho < 0.05$ ), supporting H1b. Social support also positively influenced WE ( $\beta = 0.321$ ,  $t = 5.989$ ,  $\rho < 0.001$ ), confirming H1c. Furthermore, WE was found to have a significant negative relationship with TI ( $\beta = -0.618$ ,  $t = 12.731$ ,  $\rho < 0.001$ ), supporting H2. A summary of the structural model assessment is provided in Table 4, while the structural model is visually represented in Figure 2.

Table 4

Result of Structural Path Model

Path Relationship	Std. Beta	Std. Error	Confidence Interval	t-value	p-value	VIF	f <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>
H1a) Au → WE	0.341	0.079	(0.216, 0.475)	4.305	0.000	2.575	0.150	0.693	0.536
H1b) Fb → WE	0.152	0.069	(0.044, 0.268)	2.195	0.014	2.041	0.038		
H1c) Ss → WE	0.438	0.073	(0.321, 0.557)	5.989	0.000	2.199	0.290		
H2) WE → TI	-0.618	0.049	(-0.687, -0.522)	12.731	0.000	1.000	0.616	0.377	0.264

**Notes:** Au (autonomy), Fb (feedback), Ss (social support), WE (work engagement), TI(turnover intention).

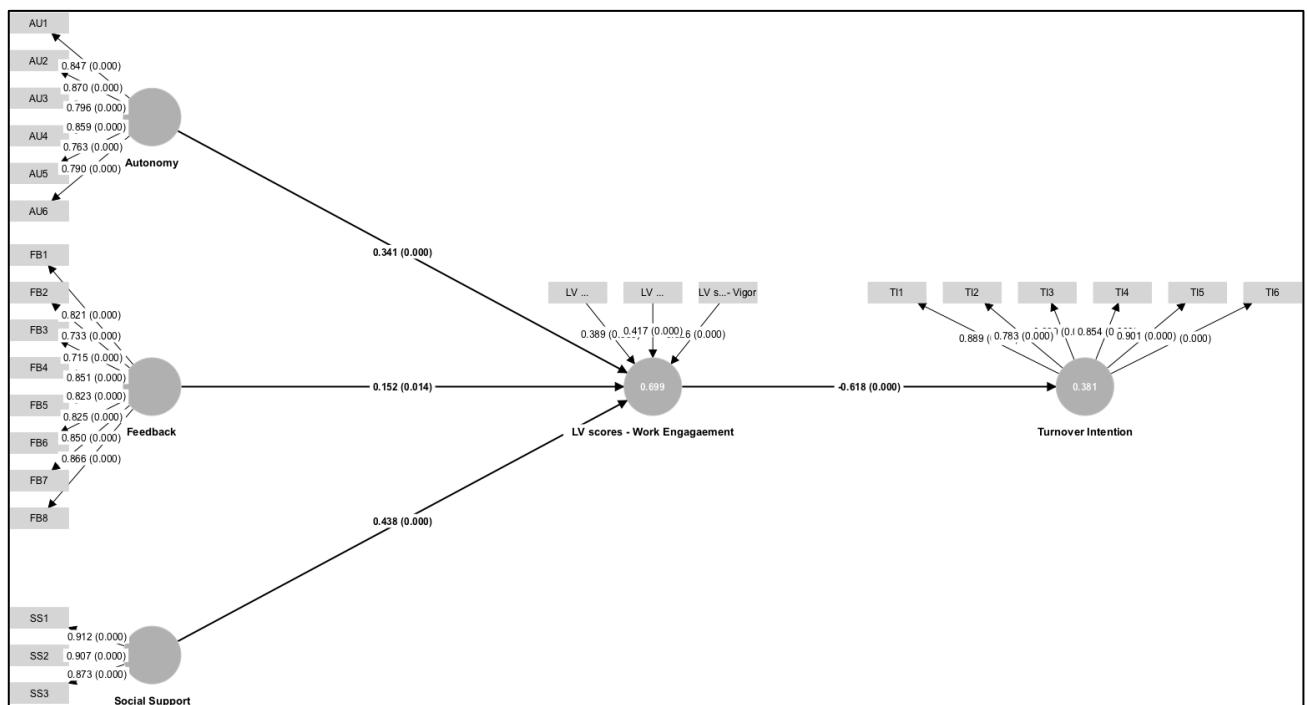


Figure 2. Structural Model

Source: Authors (2024).

### Discussion and Conclusions

The findings of this study reveal statistically significant positive relationships between autonomy (H1a:  $\beta = 0.341$ ,  $t = 4.305$ ,  $p < 0.001$ ), feedback (H1b:  $\beta = 0.152$ ,  $t = 2.195$ ,  $p < 0.05$ ), and social support (H1c:  $\beta = 0.438$ ,  $t = 5.989$ ,  $p < 0.001$ ) with WE among employees sampled from Malaysia’s Services sector. These results indicate that higher levels of autonomy, feedback, and social support contribute to increased employee engagement, aligning with the JD-R theory, which posits that job resources activate motivational pathways leading to greater engagement (Bakker *et al.*, 2023). Furthermore, these findings are consistent with previous research (e.g. Al Badi *et al.*, 2023; Mazzetti *et al.*, 2023; Naveed *et al.*, 2022), which



underscores the role of autonomy, feedback, and social support in fostering employee engagement across various organizational contexts.

The positive relationship between job resources and WE can be attributed to their dual role as intrinsic and extrinsic motivators. Autonomy provides employees with control over their tasks and responsibilities, enabling them to make decisions and prioritize work based on their skills and preferences. This sense of ownership fosters intrinsic motivation, instilling a sense of accomplishment and commitment to achieving success in their roles (Hackman & Oldham, 1976). Similarly, feedback acts as a critical mechanism for enhancing performance and development. Constructive feedback not only clarifies expectations but also highlights areas for improvement, motivating employees to bridge gaps in their performance. Positive feedback reinforces strengths and achievements, while constructive feedback encourages learning and skill acquisition, ultimately driving continuous professional growth (Kluger & DeNisi, 1996). Social support, the most important predictor of WE in this study, nurtures a sense of belonging, trust, and collaboration among employees. According to the JD-R framework, social support fulfills fundamental human needs and activates motivational processes that foster engagement (Bakker *et al.*, 2023; Xanthopoulou *et al.*, 2009). Meijman and Mulder (1998) also argue that social support functions as an extrinsic motivator, encouraging employees to invest their energy and capabilities into achieving organizational goals. A supportive work environment further reinforces an employee's dedication and enthusiasm, leading to higher levels of WE.

The results also support Hypothesis 2 (H2), which demonstrates a significant negative relationship between WE and TI ( $\beta = -0.618$ ,  $t = 12.731$ ,  $p < 0.001$ ). Employees who exhibit higher levels of energy, dedication, and absorption in their work are less likely to consider leaving their current roles. This finding aligns with the motivational process outlined by the JD-R theory, which posits that WE enhances individual outcomes, including reduced TI (Bakker *et al.*, 2023).

These findings show the critical role of WE in fostering employee retention. Engaged employees develop a strong psychological attachment to their roles and organizations, reducing their propensity to seek alternative employment opportunities. This aligns with prior research, such as Ribeiro *et al.* (2023) and Arokiasamy *et al.* (2022), which emphasize WE as a pivotal mechanism in mitigating TI across diverse organizational contexts. The study highlights the importance of job resources in fostering WE and, in turn, reducing attrition, offering both theoretical and practical insights for improving workforce stability in Malaysia's Services sector.

### **Theoretical and Practical Implications**

This study provides valuable insights for the Services sector, where employee turnover poses significant challenges, particularly given the sector's reliance on customer-facing roles. By investing in initiatives that enhance WE, such as fostering supportive work environments and leveraging job resources like autonomy, feedback, and social support, organizations can address the underlying causes of TI. These findings emphasize the importance of WE as both a theoretical construct within the JD-R framework and a practical lever for improving workforce stability and organizational performance.

This study makes several theoretical contributions. First, it reaffirms the JD-R theory's assumption that job resources promote WE and subsequently mitigate TI, further empirically validating its robustness across diverse organizational contexts. Second, it extends the application of JD-R theory to Malaysia's Services sector (i.e. accommodation, food and beverage, and wholesale and retail), which has largely been overlooked in WE literature. By focusing on wholesale and retail trade, food and beverage, and accommodation subsectors, the study provides critical insights into industries that face high turnover rates yet are vital to Malaysia's economic sustainability.

The significant relationships between job resources and WE, as well as the inverse relationship between WE and TI, provide actionable insights for managers in Malaysia's Services sector. Organizations should prioritize fostering autonomy, constructive feedback, and social support to enhance employee engagement. For example, granting employees greater decision-making authority over their work processes can foster a sense of ownership and intrinsic motivation. Regular and constructive feedback mechanisms, such as continuous performance reviews or mentorship programs, can provide clarity on job expectations and opportunities for growth. Social support can be cultivated by fostering teamwork, encouraging collaboration, and providing platforms for peer recognition, such as internal social networks. These practices not only enhance WE but also mitigate turnover intentions, thereby addressing a critical challenge faced by the Services sector. Furthermore, human resource departments should implement monitoring systems to track engagement levels and identify early signs of disengagement. Proactive interventions can then be deployed to address potential issues and reduce attrition.

### **Limitations and Future Research**

This study is not without its limitations. First, the sample is restricted to employees in the accommodation, food and beverage, and wholesale and retail subsectors, which may limit the generalizability of findings to other Services industries. Future research should adopt proportionate sampling techniques to include a broader representation of the Services sector. Second, the relatively small sample size (150 valid responses) may affect the statistical power of the analysis. Larger-scale studies are recommended to enhance the robustness and reliability of future findings. The study's cross-sectional design also captures relationships at a single point in time, limiting its ability to assess temporal changes in job resources, WE, and TI. Longitudinal research could provide a more nuanced understanding of how these dynamics evolve. Moreover, the JD-R theory has been critiqued for being overly descriptive. Future studies should explore psychological mechanisms, such as self-concept changes, that may explain how job resources give rise to WE. For instance, do job resources foster engagement because employees perceive them as opportunities for personal growth and self-expansion?

### **Conclusions**

In conclusion, job resources (i.e. autonomy, feedback, and social support) significantly enhance WE, which, in turn, reduces TI among employees in Malaysia's wholesale and retail trade, food and beverage, and accommodation subsectors. By situating these findings within the JD-R perspective and extending its application to non-Western, broader Services-oriented contexts, this research contributes both theoretically and practically to the understanding of employee engagement dynamics. The results emphasize the importance of designing work environments that leverage job resources to activate motivational pathways, thereby

enhancing engagement and reducing attrition. Future research should explore the psychological mechanisms underlying these relationships to further refine the JD-R theory and its practical applications.

### Acknowledgement

The authors sincerely thank the study participants for their valuable contributions and express deep appreciation to everyone who provided feedback and support during the research process. Special thanks are also extended to the reviewers for their insightful comments and suggestions, which greatly enhanced this paper.

### References

- Al Badi, F. M., Cherian, J., Farouk, S., and Al Nahyan, M., (2023). Work engagement and job performance among nurses in the public healthcare sector in the United Arab Emirates. *Journal of Asia Business Studies*, 17(5), 1019-1041.
- Allen, I. E., & Seaman, C. A. (2007). Likert Scales and Data Analyses. *Quality Progress*, 40(7), 64-65. Retrieved July 5, 2024, from <https://www.bayviewanalytics.com/reports/asq/likert-scales-and-data-analyses.pdf>.
- Aman-Ullah, A., Aziz, A., Ibrahim, H., Mehmood, W., & Aman-Ullah, A. (2023). The role of compensation in shaping employee's behaviour: A mediation study through job satisfaction during the Covid-19 pandemic. *Revista de Gestão*, 30(2), 221–236.
- Arokiasamy, A. R. A., Rizaldy, H., and Qiu, R., (2022). Exploring the impact of authentic leadership and work engagement on turnover intention: The moderating role of job satisfaction and organizational size. *Advances in Decision Sciences*, 26(2), 1-21.
- Azim, M. T., and Al-Halawani, F. M. J., (2020). Perceived non-work social support and employee engagement: the mediating role of self-efficacy. *Middle East Journal of Management*, 7(2), 166-184.
- Bakker, A. B., and Demerouti, E., (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285.
- Bakker, A. B., Demerouti, E., and Sanz-Vergel, A., (2023). Job demands–resources theory: Ten years later. *Annual Review of Organizational Psychology and Organizational Behavior*, 10, 25-53.
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274–284.
- Boonsiritomachai, W., and Sud-On, P., (2022). The moderation effect of work engagement on entrepreneurial attitude and organizational commitment: evidence from Thailand's entry-level employees during the COVID-19 pandemic. *Asia-Pacific Journal of Business Administration*, 14(1), 50-71.
- Bothma, C. F. C., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management*, 11(1).
- BowenXue, Feng, Y., Zhao, Y., Li, X., Yang, Y., Zhang, J., Zhang, Y., Hu, Z., & Luo, H. (2024). Decent work, work engagement, and turnover intention among registered nurses: A cross-sectional study. *BMC Nursing*, 23(1), 31.
- Cai, Y., Yusof, S. A., Amin, R. B. M., and Arshad, M. N. M., (2021). The Multi-dimensional Effect of Household Debt on Urban Individual Well-Being in Klang Valley Malaysia. *Social Indicators Research*, 158(1), 23-44.

- Cao, X., & Chen, L. (2021). Relationships between resilience, empathy, compassion fatigue, work engagement and turnover intention in haemodialysis nurses: A cross-sectional study. *Journal of Nursing Management*, 29(5), 1054–1063.
- Cave, A. H., Roberts, M. J. D., & Muralidharan, E. (2023). Examining antecedents of repatriates' job engagement and its influence on turnover intention. *The International Journal of Human Resource Management*, 34(19), 3687–3720.
- Cheah, J.-H., Sarstedt, M., Ringle, C. M., Ramayah, T., & Ting, H. (2018). Convergent validity assessment of formatively measured constructs in PLS-SEM: On using single-item versus multi-item measures in redundancy analyses. *International Journal of Contemporary Hospitality Management*, 30(11), 3192–3210.
- Cho, Y. J., & Lewis, G. B. (2012). Turnover Intention and Turnover Behavior: Implications for Retaining Federal Employees. *Review of Public Personnel Administration*, 32(1), 4–23.
- Climek, M., Henry, R., & Jeong, S. (2024). Integrative literature review on employee turnover antecedents across different generations: Commonalities and uniqueness. *European Journal of Training and Development*, 48(1/2), 112–132.
- Cohen, E. (1988). Authenticity and Commoditization in Tourism. *Annals of Tourism Research*, 15(3), 371 – 386.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, 86(3), 499-512.
- DOSM. (2022). Statistics - Revenue for Services Sector Fourth Quarter 2022. Retrieved April 17, 2023, from [https://www.dosm.gov.my/?r=column/cthemByCatandcat=398andbul\\_id=bFcvSEyQnk5N1dBY0MyNFZNSWlsdz09andmenu\\_id=b0pIV1E3RW40VWRTUkZocEhyZ1pLUT09](https://www.dosm.gov.my/?r=column/cthemByCatandcat=398andbul_id=bFcvSEyQnk5N1dBY0MyNFZNSWlsdz09andmenu_id=b0pIV1E3RW40VWRTUkZocEhyZ1pLUT09)
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Fernet, C., Austin, S., & Vallerand, R. J. (2012). The effects of work motivation on employee exhaustion and commitment: An extension of the JD-R model. *Work & Stress*, 26(3), 213–229.
- Garg, N., and Singh, P., (2020). Work engagement as a mediator between subjective well-being and work-and-health outcomes. *Management Research Review*, 43(6), 735-752.
- Geisser, S. (1974). A predictive approach to the random effects model. *Biometrika*, 61, 101–107.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A Meta-Analysis of Antecedents and Correlates of Employee Turnover: Update, Moderator Tests, and Research Implications for the Next Millennium. *Journal of Management*, 26(3), 463–488.
- Hackman, J. R., Oldham, G. R. (1974). The Job Diagnostic Survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects. *New Haven, CT: Yale University, Department of Administrative Sciences*. Retrieved on the 3rd January of 2023, from: <https://files.eric.ed.gov/fulltext/ED099580.pdf>
- Hair, J. F., Hult, T., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). Thousand Oaks: Sage.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43(6), 495–513.

- Han, X., Chen, S., and Chen, B. (2022). From employee engagement to customer engagement: A multilevel dual-path model of engagement spillover effects in Services ecosystems. *Journal of Retailing and Consumer Services*, 64, 102815.
- Hassan, N., Wahab, S. R. A., Azlan, S. N., Shaari, R., & Mija, S. (2022). The Relationship between Work Environment and Work Engagement on The West Coast of Peninsular Malaysia. *International Journal of Academic Research in Accounting Finance and Management Sciences*, 12(3), 344–357.
- Hefny, L. (2021). The relationships between job satisfaction dimensions, organizational commitment and turnover intention: The moderating role of ethical climate in travel agencies. *Journal of Human Resources in Hospitality & Tourism*, 20(1), 1–23.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Jackson, L. T. B., & Beyers, J. S. (2021). Investigating job characteristics and employee attitudes in a manufacturing concern. In H. Spies (Ed.), *Re-imagining management research: Past insights for future foresights* (pp. 457–479). Conference Proceedings of the 32nd Annual Conference of the Southern Africa Institute for Management Scientists. Retrieved July 15, 2024 From: [https://www.researchgate.net/profile/Hester-Spies/publication/356187592\\_The\\_impact\\_of\\_customer\\_attachment\\_on\\_consumption\\_emotions\\_in\\_South\\_African\\_private\\_hospitals/links/618fb71b61f09877209011e7/The-impact-of-customer-attachment-on-consumption-emotions-in-South-African-private-hospitals.pdf](https://www.researchgate.net/profile/Hester-Spies/publication/356187592_The_impact_of_customer_attachment_on_consumption_emotions_in_South_African_private_hospitals/links/618fb71b61f09877209011e7/The-impact-of-customer-attachment-on-consumption-emotions-in-South-African-private-hospitals.pdf)
- Jackson, L., & Rothmann, S. (2005). Work-Related Well-Being of Educators in a District of the North-West Province. *Perspectives in Education*, 23, 107-122. Retrieved January 7, 2024, from: [https://www.researchgate.net/profile/Leon\\_Jackson2/publication/234661047\\_Work-Related\\_Well-Being\\_of\\_Educators\\_in\\_a\\_District\\_of\\_the\\_North-West\\_Province/links/53d8c99a0cf2631430c3526b.pdf](https://www.researchgate.net/profile/Leon_Jackson2/publication/234661047_Work-Related_Well-Being_of_Educators_in_a_District_of_the_North-West_Province/links/53d8c99a0cf2631430c3526b.pdf)
- Kahn, W. A., (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33(4), 692-724.
- Karatepe, O. M., & Ngeche, R. N. (2012). Does Job Embeddedness Mediate the Effect of Work Engagement on Job Outcomes? A Study of Hotel Employees in Cameroon. *Journal of Hospitality Marketing & Management*, 21(4), 440–461.
- Klingbyle, A. T., & Chung-Yan, G. A. (2023). Conflict with customers: The limits of social support and job autonomy in preventing burnout among customer Services workers. *International Journal of Conflict Management*, 34(1), 150–166.
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254–284.
- Kock, N. (2015). Common Method Bias in PLS-SEM: A Full Collinearity Assessment Approach. *International Journal of E-Collaboration*, 11(4), 1–10.
- Kock, N., & Lynn, G. (2012). Lateral Collinearity and Misleading Results in Variance-Based SEM: An Illustration and Recommendations. *Journal of the Association for Information Systems*, 13(7), 546–580.
- Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace Social Support and Work–Family Conflict: A Meta-Analysis Clarifying the Influence of General and Work–

- Family-Specific Supervisor and Organizational Support. *Personnel Psychology*, 64(2), 289–313.
- Lee, M. C. C., Idris, M. A., and Tuckey, M., (2019). Supervisory coaching and performance feedback as mediators of the relationships between leadership styles, work engagement, and turnover intention. *Human Resource Development International*, 22(3), 257-282.
- Lee, T. W., & Mitchell, T. R. (1994). An Alternative Approach: The Unfolding Model of Voluntary Employee Turnover. *The Academy of Management Review*, 19(1), 51–89,
- Lim, P., Zawawi, D., & Aziz, Y. A. (2024a). Emotional Intelligence as a Moderator: Navigating Work-Family Conflict and Work Engagement in Malaysia's Services Sector. *International Journal of Academic Research in Economics and Management Sciences*, 13(4), 718–737.
- Lim, P., Zawawi, D., & Aziz, Y. A. (2024b). Nurturing Work Engagement: Unravelling the Impact of Servant Leadership, Employee Emotional Intelligence, and Work-Family Conflict. *International Journal of Economics and Management*, 18(3), 373-390.
- Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2023). Work Engagement: A meta-Analysis Using the Job Demands-Resources Model. *Psychological Reports*, 126(3), 1069–1107.
- McCarthy, I. O., Moonesinghe, R., & Dean, H. D. (2020). Association of Employee Engagement Factors and Turnover Intention Among the 2015 U.S. Federal Government Workforce. *SAGE Open*, 10(2), 215824402093184
- Mehta, P. (2021). Work from home—Work engagement amid COVID-19 lockdown and employee happiness. *Journal of Public Affairs*, 21(4), e2709.
- Memon, K. R., Ghani, B., & Khalid, S. (2020). The relationship between corporate social responsibility and employee engagement: A social exchange perspective. *International Journal of Business Science & Applied Management (IJBSAM)*, 15(1), 1-16.
- Memon, M. A., Salleh, R., & Baharom, M. N. R. (2016). The link between training satisfaction, work engagement and turnover intention. *European Journal of Training and Development*, 40(6), 407–429.
- Memon, M. A., Salleh, R., Mirza, M. Z., Cheah, J.-H., Ting, H., Ahmad, M. S., & Tariq, A. (2021). Satisfaction matters: The relationships between HRM practices, work engagement and turnover intention. *International Journal of Manpower*, 42(1), 21–50
- Mobley, W. H. (1977). Intermediate Linkages in the Relationship Between Job Satisfaction and Employee Turnover. *Journal of Applied Psychology*, 62(2), 237–240.
- Mulang, H. (2022). Analysis of The Effect of Organizational Justice, Worklife Balance on Employee Engagement and Turnover Intention. *Golden Ratio of Human Resource Management*, 2(2), 86–97.
- Mullins, R., Agnihotri, R., & Hall, Z. (2020). The Ambidextrous Sales Force: Aligning Salesperson Polychronicity and Selling Contexts for Sales-Services Behaviors and Customer Value. *Journal of Services Research*, 23(1), 33–52.
- Naveed, M., Zia, M. Q., & Cangialosi, N. (2022). The nexus of job resources and turnover intentions with the mediating role of employees' work engagement in the hospitality industry. *Consumer Behavior in Tourism and Hospitality*, 17(3), 282–296.
- Ninroon, P., Khlungsaeng, W., Boonying, J., & Vaiyavuth, R. (2020). Identifying the Predictors of the Turnover Intentions: A Case of Thailand Pharmaceutical Companies. *Systematic Review Pharmacy*, 11(3), 134-143.
- Oliveira, L. B., & Najnudel, P. S. (2022). The influence of abusive supervision on employee engagement, stress and turnover intention. *Revista de Gestão*, 30(1), 78-91.

- Othman, R., Asri, N. A. M., Alias, N. E., Jahya, A., Koe, W.-L., & Krishnan, R. (2021). The Effect of Job Resources on Work Engagement: Does this Matter among Academics in Malaysia? *International Journal of Academic Research in Business and Social Sciences*, 11(6), 1165–1175.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N. P., (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Podsakoff, P.M., MacKenzie, S.B., and Podsakoff, N.P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569.
- Qualtrics. (2024) 2024 employee experience trends report. Retrieved on 20 August, 2024, From <https://www.qualtrics.com/au/ebooks-guides/2024-ex-trends-report/>
- Ribeiro, N., Gomes, D., Oliveira, A. R., and Dias Semedo, A. S., (2023). The impact of the work-family conflict on employee engagement, performance, and turnover intention. *International Journal of Organizational Analysis*, 31(2), 533-549.
- Roodt, G. (2004). Turnover intentions. Unpublished document. Johannesburg: University of Johannesburg.
- Sarstedt, M., Hair, J. F., Cheah, J.-H., Becker, J.-M., & Ringle, C. M. (2019). How to Specify, Estimate, and Validate Higher-Order Constructs in PLS-SEM. *Australasian Marketing Journal*, 27(3), 197–211
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (Ninth edition). Pearson.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315.
- Schaufeli, W. B., Salanova, M., González-Romá, V., and Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Sheridan, J. E., & Abelson, M. A. (1983). Cusp Catastrophe Model of Employee Turnover. *The Academy of Management Journal*, 36(3), 418-436.
- Soeprapto, A., Tawil, M. R., Naim, S., & Buamonabot, I. (2024). *Analysis Of The Effect Of Job Satisfaction And Tenure On Turnover Intention*. 13(03), 517-523.
- Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the royal statistical society: Series B (Methodological)*, 36(2), 111-133.
- Tahir, N. K. M., & Hussein, N. (2018). Job demands and Job Resources: A study of nurses at a General Hospital in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(11), 1971-1983.
- Tensay, A. T., & Singh, M. (2020). The nexus between HRM, employee engagement and organizational performance of federal public Services organizations in Ethiopia. *Heliyon*, 6(6), e04094.
- Tett, R. P., & Meyer, J. P. (1993). Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analyses Based on Meta-Analytic Findings. *Personnel Psychology*, 46(2), 259–293.

- Tomietto, M., Paro, E., Sartori, R., Maricchio, R., Clarizia, L., De Lucia, P., and PN Nursing Group. (2019). Work engagement and perceived work ability: an evidence-based model to enhance nurses' well-being. *Journal of Advanced Nursing*, 75(9), 1933-1942.
- Van Dorssen-Boog, P., De Jong, J., Veld, M., & Van Vuuren, T. (2020). Self-Leadership Among Healthcare Workers: A Mediator for the Effects of Job Autonomy on Work Engagement and Health. *Frontiers in Psychology*, 11, 1420.
- Wolter, C., Santa Maria, A., Gusy, B., Lesener, T., Kleiber, D., & Renneberg, B. (2019). Social support and work engagement in police work: The mediating role of work–privacy conflict and self-efficacy. *Policing: An International Journal*, 42(6), 1022–1037.
- Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology*, 13(4), 345–356.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, 74(3), 235–244.
- Zhang, M., Zhang, P., Liu, Y., Wang, H., Hu, K., & Du, M. (2021). Influence of perceived stress and workload on work engagement in front-line nurses during COVID-19 pandemic. *Journal of Clinical Nursing*, 30(11-12), 1584-1595.