The Impact of Work–Family Conflict on Work Engagement among Services Sector Employees in Klang Valley, Malaysia

Prisco Lim[1*], Guifang Wang[2], Chua Kok Hua[3]

[1]School of Business and Economics, Universiti Putra Malaysia, Serdang, Malaysia,
[2]Economics and Management Department, Bozhou University, Anhui Province, China,
[3]College of Engineering, Universiti Tenaga Nasional, Kajang, Malaysia
Email: wangguifang7@gmail.com[2], Ckh@uniten.edu.my[3]
Corresponding Author Email: priscolimling@gmail.com

Abstract
This study investigates the impact of work–family conflict on work engagement among employees in Malaysia's service sector, with a specific focus on the food and beverage, accommodation, and wholesale and retail trade subsectors in Klang Valley. Grounded in the Job Demands–Resources (JD-R) theory, work–family conflict is conceptualized as a job demand that diminishes employees' engagement levels. Data were collected from 150 employees using both pen-and-paper and online questionnaires. The relationships among variables were analyzed using partial least squares structural equation modeling (PLS-SEM). The results indicate that both work interference with family (WIF) and family interference with work (FIW) significantly and negatively affect work engagement, with WIF emerging as the stronger predictor. These findings underscore the adverse effects of work–family conflict on employee engagement, particularly in collectivist cultures such as Malaysia, where familial obligations carry substantial weight. The study offers practical implications by emphasizing the need for organizational interventions, such as flexible work arrangements and family-friendly policies, to mitigate work–family conflict and enhance engagement. By addressing the differential impacts of WIF and FIW, this research extends the JD-R framework and contributes valuable insights to the literature on work–family dynamics and employee well-being in service-oriented industries.
Keywords: Job Demands, Job Demands-Resources Theory, Work Engagement, Work-Family Conflict, Services Sector

Introduction
In today's evolving workforce, managing the intersection of professional and personal roles has become increasingly complex, particularly in dual-income households. As both partners

contribute financially and share domestic responsibilities, the resulting work-family conflict (WFC) poses significant challenges to employee well-being and organisational effectiveness (Ji & Jung, 2021; Sadiq, 2022). This issue is especially pressing in Malaysia, where financial pressures and rising living costs have led many to work longer hours or take on additional jobs (UCSI Poll Research Centre, 2023). At the same time, Malaysia ranks among the world's most overworked countries, placing third globally in 2022 (Kisi, 2022), further compounding the difficulty of achieving work-life balance. These conditions highlight the urgent need to understand how role conflicts affect employee engagement and performance.

The Services sector, a cornerstone of Malaysia's economy, consistently contributes more than half of the country's gross domestic product and accounts for 51.8% of national employment (DOSM, 2022). Within this sector, employees face high job demands, including long working hours, fast-paced tasks, and the burden of emotional labour (Sharma & Singh, 2021; Zainal, 2019). Workers are often required to display constant positivity and professionalism during customer interactions (Gulsen & Ozmen, 2020; Robbins & Judge, 2019), even when experiencing personal stress. Such expectations increase the likelihood of WFC, where responsibilities at work hinder family life or vice versa (Greenhaus & Beutell, 1985). WFC has been associated with adverse outcomes such as burnout (Wu, Yuan, Yen, & Xu, 2019), reduced job satisfaction (Vickovic & Morrow, 2020), and higher turnover intentions (Gull, Asghar, Bashir, Liu, & Xiong, 2022).

In contrast, work engagement (WE), defined as a positive, fulfilling work-related state marked by vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002), has been recognised as a key predictor of organisational success. Engaged employees are more productive, innovative, and committed (Boonsiritomachai & Sud-On, 2022; Soares & Mosquera, 2019), and positively influence customer satisfaction and firm reputation (Han et al., 2022; Jin et al., 2021). Yet, despite its importance, the relationship between WFC and WE remains underexplored. Most studies have focused on the link between WFC and negative outcomes like stress or burnout, rather than on how WFC may inhibit positive work states such as engagement (Breaugh, 2021). Moreover, limited attention has been given to the impact of family interference with work (FIW), a dimension of WFC, on engagement (Mayuran & Kailasapathy, 2022).

To address these gaps, this study applies the Job Demands–Resources (JD-R) theory to investigate how both dimensions of WFC (i.e., WIF and FIW) affect WE among employees in Malaysia's Services sector. In addition to extending theoretical understanding, this research offers practical insights for human resource management, including strategies to strengthen engagement and reduce conflict-related disengagement. The following sections present the theoretical framework, review of key concepts, and development of hypotheses.

Review of Literature
Job Demands-Resources Theory
The JD-R theory, developed by Bakker and Demerouti (2017), is an evolution of the JD-R model introduced by Demerouti, Bakker, Nachreiner, and Schaufeli (2001). Initially designed to assess the impact of job characteristics on exhaustion and disengagement, the model later incorporated a positive outcome (i.e., WE) into its framework (Bakker and Demerouti, 2017). Although it has undergone developments by incorporating more variables, the fundamental

assumption of the JD-R theory remains rooted in the categorization of job characteristics into two main types: job resources and job demands. These activate distinct processes, namely motivational and health impairment processes, respectively (Bakker, Demerouti, & Sanz-Vergel, 2023).

According to Demerouti et al. (2001), job resources encompass the physical, psychological, and physiological aspects of a job that facilitate task accomplishment, alleviate job demands, and contribute to personal development. Through the motivational process, job resources lead to increased WE (Bakker & Demerouti, 2017). Conversely, job demands consist of the physical, psychological, and physiological aspects of a job that necessitate continuous mental and physical effort, as outlined by Demerouti et al. (2001). This demand triggers the health impairment process, resulting in strain (Bakker & Demerouti, 2017).

As previously mentioned, WFC represents a type of interrole conflict wherein individuals encounter challenges in fulfilling the demands of both work and home responsibilities, as outlined by Greenhaus and Beutell (1985). WFC is frequently construed as an occupational stressor (Eissa & Wyland, 2018). For instance, Bellamkonda, Santhanam, and Pattusamy (2021) contend that WFC, viewed as a job demand, depletes the mental resources of employees. Similarly, WFC diminishes time, energy, and attention as individuals navigate multiple roles in both their professional and personal spheres (Galletta et al., 2019). Drawing from the JD-R theory, the present study conceives WFC as a job demand that impacts the WE of employees in the Services sector. This conceptualization aligns with the JD-R theory that posits job demands as elements that, when excessive, can lead to adverse outcomes, influencing the well-being and engagement of employees. The following briefly review WFC.

Work-Family Conflict
Work-family conflict, delineated by Greenhause and Beutell (1985), manifests as a form of interrole conflict wherein an individual experiences clashes between their work and family roles. The study has identified three distinct types of work-family conflict: time-based conflict, strain-based conflict, and behavior-based conflict (Greenhause & Beutell, 1985). Time-based conflict arises when an individual's work commitments impede their ability to fulfill familial or social responsibilities (Greenhause & Beutell, 1985). Strain-based conflict emerges when symptoms of work-related stress obstruct the discharge of familial or social duties (Greenhause & Beutell, 1985). Behavior-based conflict involves incongruence between the behavioral patterns required for an individual's work or family roles and those essential for their other roles (Greenhause & Beutell, 1985).

Upon reviewing Greenhaus and Beutell's work (1985), it appears that the study of WFC originated in the late 1950s. In the 1970s, researchers explored gender differences in experiences of WFC (Herman & Gyllstrom, 1977; Holahan & Gilbert, 1979). Subsequently, Netemeyer, Boles, and McMurrian (1996) aligned their conceptualization of WFC, also known as work interfering with work (WIF), with Greenhaus and Beutell's definition (1985). They described it as a form of inter-role conflict where job demands, time requirements, and stress impede an individual's ability to fulfill family obligations. Emphasizing the multidimensional nature of WFC, Frone, Russell, and Cooper (1992), as well as Netemeyer et al. (1996), recognized WFC as a bidirectional phenomenon: family-work conflict (FWC) or family interfering work (FIW). FWC is akin to WFC but represents inter-role conflict, where family

responsibilities, obligations, and stress obstruct one's ability to fulfill work-related duties (Netemeyer et al., 1996). In 2002, Werbel and Walter proposed a symbiotic viewpoint, suggesting that the exchange of resources and energy can benefit both work and family domains. Another development includes McMillan, Morris, and Atchley's (2011) introduction of the concept of Work/Life Harmony, emphasizing a personally fulfilling and balanced integration of work and life roles.

The study of WFC has been extensively explored in various temporal and contextual settings. The COVID-19 pandemic prompted significant changes in work practices, with organizations implementing measures like remote work for business continuity (Waizenegger, McKenna, Cai, & Bendz, 2020; Vyas & Butakhieo, 2021). This shift has sparked scholarly interest, especially in studies focusing on the context of remote work (e.g., Darouei & Pluut, 2021; Ghislieri, Molino, Dolce, Sanseverino, & Presutti, 2021; Mohammed, Nandwani, Saboo, & Padakannaya, 2022). A recent review by Pascucci, Hernández Sánchez, and Sánchez García (2022) highlighted that over half of the studies focused on job stress and performance, exploring the impact of WFC on job performance and the mitigating role of organizational support. This underscores the ongoing interest in understanding the consequences of WFC for individuals and organizations. The review also emphasized the need for further investigation into factors that can alleviate the negative effects of WFC. In consideration of these insights, we investigate how WFC influences WE.

While WFC is commonly acknowledged as a bidirectional construct encompassing both WIF and FIW (e.g., Netemeyer et al., 1996), it is imperative to note that a growing body of research has deliberately focused on WIF alone. Yucel, Şirin, and Baş (2021) highlighted that empirical evidence consistently demonstrates a prevalence of WIF over FIW, implying that employees tend to experience more challenges in balancing work demands with family responsibilities. Furthermore, notable studies have deliberately concentrated on the impacts of WIF, attributing its prominence to factors such as extended working hours, work overload, and elevated work-related stress (Zheng, Gou, Li, Xia, & Wu, 2021). The cumulative evidence suggests that WIF is not only more pervasive but may also yield more severe consequences for individuals in the workplace (Zheng et al., 2021). However, in the current study, the researcher take a look at WFC, both WIF and FIW, for its impact on WE. The following briefly review work engagement.

Work Engagement
Work engagement defined as the a "positive, fulfilling, work-related state of mind characterized by vigour, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Since its introduction in 2002 (Boccoli, Gastaldi, & Corso, 2022), this definition has gained substantial attention in academia. WE, as delineated by Schaufeli et al. (2002), comprises three facets: vigour, dedication, and absorption. Vigour involves having high energy, mental resilience, and a willingness to exert effort and persist when faced with challenges. Dedication refers to a strong sense of purpose, deep meaning derived from one's job, and feelings of importance, enthusiasm, and pride in one's work. Absorption entails complete immersion in work, an inability to detach, finding work interesting and rewarding, and losing track of time while working.

Numerous positive outcomes are associated with WE, including high in-role and extra-role performance (e.g., Al Badi, Cherian, Farouk, & Al Nahyan, 2023), employee innovativeness (e.g., Koroglu & Ozmen, 2022; Sharma & Nambudiri, 2020), organizational commitment (e.g., Aboramadan, Albashiti, Alharazin, & Dahleez, 2019; Boonsiritomachai & Sud-On, 2022), and organizational citizenship behavior (e.g., Ashfaq & Hamid, 2021). Conversely, WE has been linked to adverse outcomes such as work withdrawal behavior (e.g., Garg & Singh, 2020) and unproductive work behavior (e.g., Bilal et al., 2019). Additionally, higher WE has been associated with favorable consumer perceptions of value (e.g., Han, Chen, & Chen, 2022).

Given its myriad benefits, employee WE is highly valued by organizations in both public and private sectors (Alamri, 2023; Boonsiritomachai & Sud-On, 2022; Nordin & Hamzah, 2021). Consequently, extensive research has explored the factors influencing WE, including self-efficacy (e.g., Azim & Al-Halawani, 2020; Priambodo, Darokah, & Sari, 2019), individual workplace spirituality (e.g., Gurugamage, Ramanayake, Iddagoda, & Dissanayake, 2022; Margaretha et al., 2021), perceived organizational support (e.g., Jankelová, Joniaková, & Skorková, 2021), social support (e.g., Wang, Gao, & Xun, 2021), autonomy (e.g., Tensay & Singh, 2020), and feedback (e.g., Lee, Idris, & Tuckey, 2019). Despite the significance of the work–family interface for employees, there is a shortage of research of WFC's impact on WE (Yang, Fei, Guo, Bai, & Li, 2023). The following section discusses the relationship between WFC and WE, elucidating the connection that forms the basis for the subsequent development of hypotheses.

Hypothesis Development
Work-Family Conflict and Work Engagement
The JD-R theory posits that persistent physical, cognitive, or emotional effort in the job can lead to physiological or psychological exhaustion through the health-impairment process (Bakker & Demerouti, 2017). In line with this, WFC, characterized by time-based, strain-based, and behavior-based conflict (Netemeyer et al., 1996), depletes time, energy, and attention as individuals navigate multiple roles at work and at home (Galletta et al., 2019). The current study views WFC as a job demand that results in reduced WE.

Previous research supports the impact of WFC on WE. Opie and Henn (2013) found that WIF conflict negatively influenced the work engagement of 267 working mothers. Similarly, Yucel et al. (2021) identified a negative relationship between WIF and work engagement among 350 healthcare professionals. King (2018) examined the influence of WIF on work engagement and found a negative relationship among 154 individuals in the United States providing care for family members. Li, Cheung, and Sun (2019) discovered that FIW positively affected stress and negatively affected work engagement among 514 Hong Kong police officers. Galanti et al. (2021) found that family interference with work is positively related to stress and negatively related to work engagement among 209 individuals working in Italian organizations.

Contrary to Opie and Henn (2013), King (2018), Yucel et al. (2021), and Galanti et al. (2021), other studies have considered both dimensions of work-family conflict. Karatepe and Karadas (2016) revealed that frontline hotel employees in Romania were less work-engaged when facing an imbalance between work and family responsibilities. Islam, Ahmad, Ahmed,

& Ahmer (2019) argued that police jobs' demands drain energy and make it challenging to balance work and family life, negatively influencing work engagement among 343 male Punjab police officers. Park, Jang, and Nam (2021) found that work-family conflict negatively relates to work engagement among South Korean workers. Ribeiro, Gomes, Oliveira, and Dias Semedo (2023) demonstrated that employees with greater work-family conflict were less work-engaged and more likely to leave their organization. Şahin and Yozgat (2021) found negative influences of work-family conflict on work engagement among 432 healthcare employees in Turkey. Yang et al. (2021) reported a significant negative correlation between work-family conflict and work engagement among 358 Chinese school principals. These findings align with the JD-R theory, suggesting that job demands activate the health-impairment process, affecting employees' well-being. It was thus hypothesized that:

H1: WIF is negatively related to WE
H2: FIW is negatively related to WE

Conceptual Framework

The present study examines the influence of WFC on WE, as indicated by the arrow connecting WIF (H1) and FIW (H2) to WE. The connection between WFC and WE is grounded in the JD-R theory, which posits that job demands activate the health-impairment process, leading to strain or burnout. While the theory does not explicitly mention that job demands lead to lesser WE, burnout, according to Maslach, Schaufeli, and Leiter (2001), is the antithesis of WE. Therefore, it is reasonable to expect that job demands (such as WFC) are inversely related to WE. The conceptual framework is visually depicted in Figure 1.
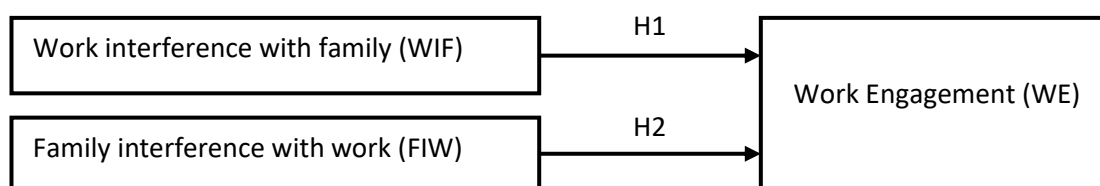

Figure 1. Proposed conceptual framework
Source: Authors (2025).

Research Methodology

Participant and Data Collection

This study focused on employees working in Malaysia's Services sector, specifically in the Klang Valley region. According to the Department of Statistics Malaysia (DOSM, 2023), the Services sector contributes significantly to the national economy, consistently accounting for over half of Malaysia's GDP. Additionally, this sector employs the largest share of the workforce, comprising 51.8% (4.53 million) of the total workforce in 2022 (DOSM, 2023b). Within this sector, the food and beverage, accommodation, and wholesale and retail trade subsectors were selected as they collectively employ over 65% of the sector's workforce (DOSM, 2023). The Klang Valley was chosen as the study location due to its substantial contribution to the Services sector, representing 25.9% of Selangor's economy and 24.8% of Kuala Lumpur's economy (DOSM, 2022). It also surpasses other urban centers such as Penang and Johor Bahru in population density and serves as a hub for numerous businesses (Cai, Yusof, Amin, & Arshad, 2021; Gross & Campbell, 2015).

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., WIF and FIW) on the outcome (i.e., WE). Due to the absence of a sampling frame, purposive sampling was used to recruit participants from the food and beverage, accommodation, and wholesale and retail sectors, all of whom had at least six months of experience in their current company. This approach is recommended when a complete list of the target population is unavailable (Saunders, Lewis, & Thornhill, 2019).

The sample size was calculated using G*Power software version 3.1.9.6 (Faul, Erdfelder, Lang, & Buchner, 2007), which determined that at least 107 responses were required for two predictors. Respondents were from organizations within the food and beverage, accommodation, and wholesale and retail sectors, identified through the Malaysia Retail Association (MRA), Malaysia Retail Chain Association (MRCA), and the Ministry of Tourism, Arts and Culture (MOTAC). Study such as by Lim, Zawawi, and Aziz (2024a) have referred to these bodies to represents the food and beverage, accommodation, and wholesale and retail sector in Malaysia. Survey invitations were sent to identified organizations via email. Upon their agreement to participate, survey packages were delivered in person. For organizations preferring an online option, a Google Form was created and shared through a Uniform Resource Locator (URL) link sent via email. Data collection occurred between February 2024 and May 2024. Of the 200 questionnaires distributed, 150 valid responses were received, representing a 75% response rate after excluding incomplete or invalid submissions.

Out of 150 participants, 64% were male, while 36% were female. The majority of respondents fell within the age group of 31–40 years (42%), followed by those aged 21–30 years (26.7%), 41–50 years (23.3%), and more than 50 years (8%). Ethnicity-wise, most respondents identified as Malay (75.3%), with smaller proportions identifying as Chinese (15.3%), Indian (6.7%), and other ethnicities (2.7%). In terms of marital status, the majority were married (80.7%), while 14% were single, 4% divorced or separated, and 1.3% widowed. The largest subsector represented was Retail and Wholesale (54%), followed by Food and Beverage (25.3%) and Accommodation (20.7%). Regarding family size, 20% of respondents reported having no children, while 29.3% had one child, 23.3% had two children, and smaller proportions had three or more children. Respondents' length of service varied, with 44% having worked for 6–10 years, 36.3% for 1–5 years, 12% for more than 10 years, and 8% for less than a year. Positions held by respondents were primarily non-executive roles (44.7%), followed by executives (29.3%), first-line managers (21.3%), and middle-line managers (4.7%). The highest academic qualifications of respondents ranged from Master's degrees (2%) and Bachelor's degrees (26.7%) to Diplomas (46.7%), STPM or equivalent (14.7%), and lower-level certifications (11.7%). The demographic profile is presented in Table 1.

Table 1

Respondent's Demographic Profiles (N=150)

Characteristics	Information	Frequency (n)	Percentage (%)
Gender	Male	94	64.0
	Female	56	36.0
	Total	*150*	*100*
Age	21 – 30	40	26.7
	31 – 40	63	42.0
	41 – 50	35	23.3
	More than 50	12	8.0
	Total	*150*	*100*
Race	Malay	113	75.3
	Chinese	23	15.3
	Indian	10	6.7
	Others	4	2.7
	Total	*150*	*100*
Marital Status	Single	21	14.0
	Married	121	80.70
	Divorced / Separated	6	4.0
	Widowed	2	1.3
	Total	*150*	*100*
Services Subsector	Retail and Wholesale	81	54.0
	Food and Beverage	38	25.3
	Accommodation	31	20.7
		150	*100*
Number of children	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
	Total	*150*	*100*
Length of services	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
	Total	*150*	*100*
Position	Non-executive	67	44.7
	Executive	44	29.3
	First-line manager	32	21.3
	Middle-line manager	7	4.7
	Total	*150*	*100*

Academic	Master's degree	3	2.0
Qualification	Bachelor's degree	40	26.7
	Diploma	70	46.7
	STPM or equivalent	22	14.7
	SPM or equivalent	10	6.7
	PMR or equivalent	0	0
	Certificate	5	3.3
	Total	*150*	*100*

Source: Author (2025)

Questionnaire and Measurements

The questionnaire used in this study was initially developed in English, with a Bahasa Malaysia translation provided to ensure comprehension among respondents. The variables were measured using validated scales from prior research, all of which demonstrated good reliability, with Cronbach's Alpha values exceeding 0.7 (Sekaran & Bougie, 2016). To enhance the measurement precision, the scales were standardized to a seven-point Likert format. This decision was guided by Allen and Seaman's (2007) recommendation to use a minimum of five response categories in Likert scales, often extended to seven to provide a broader range by including "very" at both ends.

Work-family conflict (WFC) was measured using Carlson, Kacmar, and Williams' (2000) Work-Family Conflict scale, which comprises nine items divided across three dimensions: time-based, strain-based, and behavior-based conflict. Each dimension included three items to measure both *work-interfering-with-family (WIF)* and *family-interfering-with-work (FIW)*. For instance, time-based WIF was assessed with items such as, "The time I must devote to my job keeps me from participating equally in household responsibilities and activities," while strain-based WIF included items like, "I am often so emotionally drained when I get home from work that it prevents me from contributing to my family." Similarly, behavior-based WIF was evaluated with items such as, "Behavior that is effective and necessary for me at work would be counterproductive at home." The FIW dimensions followed a parallel structure, with time-based FIW measured using items like, "The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career," strain-based FIW assessed with items such as, "Because I am often stressed from family responsibilities, I have a hard time concentrating on my work," and behavior-based FIW evaluated using items like, "Behavior that is effective and necessary for me at home would be counterproductive at work." This scale has demonstrated high reliability in previous research, with a reported Cronbach's Alpha of over 0.80 for WIF (e.g., Brenning, De Clercq, Wille, & Vergauwe, 2020; Lim, Zawawi, & Aziz, 2024a). In the current study, Cronbach's Alpha for WIF was 0.936, indicating excellent internal consistency.

Work engagement (WE) was measured using the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002), which includes 17 items assessing three dimensions: vigor, dedication, and absorption. For vigor, items such as, "At my work, I feel that I am bursting with energy," were used. Dedication was measured with items like, "I find the work that I do full of meaning and purpose," while absorption was assessed using items such as, "It is difficult to detach myself from my job." Previous studies reported a Cronbach's Alpha of over 0.70 for

the UWES (e.g., Lim & Wang, 2025, Petrović, Vukelić, & Čizmić, 2017; Tomietto et al., 2019). In this study, Cronbach's Alpha for WE was 0.939, confirming the scale's high reliability.

The content validity of the questionnaire was assessed through a pre-test. A draft of the questionnaire, including research objectives, instructions, and operational definitions of the constructs, was sent to two experts in human resource management. This process aimed to identify and resolve any issues related to question phrasing or measurement, as emphasized by Sekaran and Bougie (2016). The feedback provided no significant concerns, indicating the questionnaire's clarity and relevance. Additionally, a pilot test was conducted with 30 participants who shared similar characteristics with the target population but were not included in the main study. The results of the pilot test showed Cronbach's Alpha values above 0.90 for all constructs, demonstrating strong internal consistency (Saunders et al., 2019). Based on these findings, the questionnaire was deemed valid and reliable for use in the primary data collection.

Results

Common Method Variance Assessment
Common method variance (CMV) is a potential concern in behavioral studies (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). CMV occurs when the method of measurement affects responses more than the actual constructs being studied, leading to possible bias or inflated results. To examine whether CMV was an issue in this study, Harman's single-factor test was applied (Podsakoff et al., 2003). This method tests whether a single factor explains most of the variance in the data. If a single factor accounts for more than 50% of the variance, it suggests the presence of CMV (Podsakoff & Organ, 1986). Using SPSS software (version 29.0) and an unrotated factor solution, the analysis showed that the single factor explained 40.91% of the variance, which is below the 50% threshold. This result indicates that CMV is not a serious 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 1.424 for FIW, 1.439 for WIF, and 1.279 for WE. All these values are below the threshold of 3.33, confirming the absence of significant CMV (Kock, 2015). Following this, the researcher proceeded with partial least squares structural equation modeling (PLS-SEM) analysis.

Measurement Model Assessment
The first step in evaluating PLS-SEM is to assess the measurement model. This involves examining indicator reliability, internal consistency, convergent validity, and discriminant validity (Hair, Hult, Ringle, & Sarstedt, 2022). Indicator reliability is measured using indicator loadings, which assess how much of an indicator's variance is explained by its construct. A loading of 0.708 or higher is recommended, as it indicates that the construct explains more than 50% of the indicator's variance (Hair et al., 2022). In the initial analysis, three items (D5, A4, and A6) had loadings below the recommended threshold, suggesting potential deletion. However, since the average variance extracted (AVE) for all constructs exceeded 0.50, and no item had a loading below the mandatory deletion threshold of 0.40 (Hair et al., 2022), all items were retained. Internal consistency was assessed using composite reliability (CR). CR values for the constructs (WIF, FIW, Absorption, Dedication, and Vigor) were 0.949, 0.953, 0.875, 0.888, and 0.908, respectively, indicating strong internal consistency. Cronbach's alpha, an alternative measure of internal consistency, produced values of 0.936, 0.945, 0.829, 0.842,

and 0.879 for WIF, FIW, Absorption, Dedication, and Vigor, respectively, further supporting the reliability of the constructs (Hair et al., 2022). Convergent validity (CV) examines whether indicators within a construct are positively correlated. CV was assessed using the AVE, where a value of 0.50 or higher indicates that at least 50% of the variance in the indicators is explained by the construct (Hair et al., 2022). In this study, all constructs achieved CV, as their AVE values exceeded 0.50. The item loadings, Cronbach's alpha, CR, and AVE for each construct are presented in Table 2. Discriminant validity (DV) ensures that constructs are distinct from each other. It was evaluated using the heterotrait-monotrait (HTMT) ratio of correlations. An HTMT value below 0.90 confirms discriminant validity, while values above 0.90 suggest a lack of distinctiveness (Henseler, Ringle, & Sarstedt, 2015). In this study, all HTMT values were below 0.85, indicating clear distinction between constructs. These results are shown in Table 3.

Table 2
Items Loading, Composite Reliability and Average Variance Extracted

Construct	Items	Loadings	Cronbach's alpha	CR	AVE
Work interference with family	WIF1	0.788	0.939	0.949	0.673
	WIF2	0.838			
	WIF3	0.808			
	WIF4	0.822			
	WIF5	0.877			
	WIF6	0.846			
	WIF7	0.779			
	WIF8	0.830			
	WIF9	0.789			
Family interference with work	FIW1	0.857	0.945	0.953	0.694
	FIW2	0.815			
	FIW3	0.784			
	FIW4	0.815			
	FIW5	0.841			
	FIW6	0.814			
	FIW7	0.836			
	FIW8	0.873			
	FIW9	0.855			
Vigor	V1	0.813	0.879	0.908	0.622
	V2	0.816			
	V3	0.816			
	V4	0.758			
	V5	0.759			
	V6	0.768			
Dedication	D1	0.813	0.842	0.888	0.618
	D2	0.802			
	D3	0.841			
	D4	0.854			
	D5	0.591			
Absorption	A1	0.791	0.829	0.875	0.540
	A2	0.793			
	A3	0.787			
	A4	0.644			
	A5	0.717			
	A6	0.662			

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

Table 3

Heterotrait-Monotrait (HTMT) Ratio Criterion

	Absorption	Dedication	FIW	Vigor	WIF
Absorption					
Dedication	0.791				
FIW	0.550	0.500			
Vigor	0.839	0.688	0.592		
WIF	0.603	0.446	0.609	0.553	

Notes: FIW (family interference with work), WE (work engagement), WIF (work interference with family). HTMT criterion < 0.850

This study focused on overall WE rather than how WIF and FIW affect different facets of WE. Therefore, WE was treated as a single multidimensional construct. To ensure a streamlined and less complex model, WE was analyzed as a higher-order construct (HOC), consistent with recommendations by Hair et al. (2022). Following study such as Ho, Mustamil, and Jayasingam (2021), and Lim, Zawawi, and Aziz (2024b), WE was specified as a reflective-formative construct, assessed using the two-stage method proposed by Sarstedt, Hair, Cheah, Becker, and Ringle (2019). In the first stage, lower-order constructs (LOCs) were evaluated using the reflective measurement model, as presented earlier. In the second stage, the HOC was assessed using the formative measurement model, focusing on convergent validity, collinearity, indicator weights, and significance. Convergent validity was determined using a single global item, as suggested by Cheah, Sarstedt, Ringle, Ramayah, and Ting (2018). Following Lim and Wang (2025), the global item for WE was: "Overall, I feel energetic, dedicated, and immersed in my job." Redundancy analysis yielded a path coefficient of 0.814 for WE (see Table 4), exceeding the threshold of 0.700 (Hair et al., 2022), thus confirming convergent validity. Collinearity was assessed, and VIF values ranged from 1.969 to 2.592, below the threshold of 5.0 (Hair et al., 2022), indicating no serious collinearity issues. Finally, indicator weights and significance were tested using bootstrapping with 5,000 subsamples (Cheah et al., 2018). Results in Table 4 showed that Dedication was not statistically significant in influencing WE ($p > 0.050$), while Absorption and Vigor were statistically significant ($p < 0.050$). Despite this, all three sub-dimensions were retained to fully represent the domains of WE.

Table 4

Assessment of Higher Order Construct

HOC	LOC	CV	Outer VIF	Outer Weight	Std. Error	*t*-value	*p*-value
Work	Absorption	0.814	2.592	0.454	0.166	2.738	0.003
engagement	Dedication		1.969	0.129	0.151	0.845	0.196
	Vigor		2.226	0.522	0.144	3.626	0.000

Notes: HOC (Higher order construct); LOC (Lower order construct); CV (Convergent validity).

Structural Model Assessment

After confirming the reliability and validity of the construct measures, the next step was to assess the structural model's predictive capability and the relationships between constructs (Hair et al., 2022). Collinearity was checked by examining the tolerance and variance inflation factor (VIF) values for the predictor constructs. Collinearity occurs when tolerance values are below 0.20 or VIF values exceed 5.00 (Hair et al., 2014). In this study, the VIF values for WIF and FIW were 1.885, which are within acceptable levels, indicating that collinearity was not a

concern. Next, the coefficient of determination (R^2) was calculated to evaluate the model's predictive accuracy. In social sciences, R^2 values of 0.750, 0.500, and 0.250 are considered substantial, moderate, and weak, respectively (Hair et al., 2022). In this study, WE had an R^2 value of 0.401, indicating weak explanatory power. The effect size (f^2) was also assessed to measure the impact of individual constructs. According to Cohen (1988), f^2 values of 0.350, 0.150, and 0.020 indicate substantial, medium, and trivial effects, respectively. The results showed that WIF and FIW had trivial effects on WE, with f^2 values of 0.148 and 0.146, respectively. To assess the model's predictive relevance, Stone-Geisser's Q^2 value (Geisser, 1974; Stone, 1974) was used. Q^2 values greater than zero for a specific reflective endogenous latent variable indicate that the model has predictive relevance for that variable (Chin, 1998). Using the blindfolding method in SmartPLS, a Q^2 value of 0.301 was obtained for WE, confirming its predictive relevance. Finally, hypotheses were tested using the bootstrapping method with 5000 resamples to calculate path coefficients and their significance. For H1 and H2 a one-tailed test with a critical t-value of 1.645 ($p < 0.05$) was used. The results showed a statistically significant negative relationship between WIF and WE ($β$ = -0.362, t = 4.420, $p <$ 0.001), supporting H1. Similarly, FIW also had a significant negative effect on WE ($β$ = -0.359, t = 4.258, $p < 0.001$), supporting H2. A summary of the structural model assessment results is provided in Table 5.

Table 5
Result of Structural Path Model

Path Relationship	Std. Beta	Std. Error	Confidence Interval	t-value	p-value	VIF	f^2	R^2	Q^2
H1) WIF → WE	-0.362	0.085	(-0.503, -0.226)	4.420	0.000	1.493	0.148	0.401	0.301
H2) FIW → WE	-0.359	0.081	(-0.502, -0.232)	4.258	0.000	1.493	0.146		

Notes: WIF (work interfere with family), FIW (family interfere with work), WE (work engagement)

Discussion and Conclusions
Hypothesis 1 posited that work interference with family (WIF) is negatively related to work engagement (WE). The findings, presented in Table 4, confirm this hypothesis, showing that WIF has a significant negative impact on WE among employees in the Services sector in Klang Valley, Malaysia. This result aligns with previous studies, such as those by Yucel et al. (2021). Similarly, Hypothesis 2 suggested that family interference with work (FIW) is negatively related to WE. The results in Table 4 also support this hypothesis, demonstrating an inverse relationship between FIW and WE, consistent with findings from King (2018), Li, Cheung, and Sun (2019), and Şahin and Yozgat (2021).

However, the findings reveal that WIF is a stronger predictor of WE compared to FIW. This observation is consistent with studies such as Chakravorty and Singh (2020), who found that WIF had a greater impact on burnout than FIW, and Jia and Li (2022), who reported that WIF more strongly predicted depersonalization and emotional exhaustion among Chinese social workers. A plausible explanation for this difference lies in Malaysia's cultural orientation toward collectivism. Hofstede (1991) classifies Malaysia as a collectivist society, where maintaining family harmony is a fundamental value. Familial roles and responsibilities are deeply ingrained from an early age, as highlighted by Sumari, Baharudin, Khalid, Ibrahim,

and Ahmed Tharbe (2020). In such a cultural framework, conflicts arising from work that prevent individuals from fulfilling their family responsibilities (i.e., WIF) may be perceived as violations of societal expectations. This can lead to feelings of guilt, judgment from others, or a sense of failing to show love and commitment to one's family, all of which can have detrimental effects on work outcomes such as WE. In contrast, conflicts originating from family obligations that interfere with work (i.e., FIW) may be viewed differently in a collectivist society. Fulfilling family responsibilities at the expense of workplace duties may be interpreted as a demonstration of familial devotion, aligning with societal norms. While family-related responsibilities can create challenges in fulfilling work roles, they may not significantly diminish an individual's dedication to work. This is particularly true for breadwinners, who often continue to prioritize work as a means of sustaining income and fulfilling familial obligations, thereby maintaining their sense of purpose and commitment to their jobs.

In summary, while both WIF and FIW negatively impact WE, the cultural emphasis on family in a collectivist society like Malaysia likely amplifies the adverse effects of WIF. These findings underscore the importance of understanding cultural context when examining work-family conflict and its impact on employee outcomes.

Theoretical and Practical Implications
The primary contribution of the present study lies in the examination of the influence of WIF and FIW on WE. Typically investigated for its effects on burnout (Breaugh, 2021), WFC's exploration aligns with the JD-R theory, which postulates that job demands activate the health impairment process, leading to exhaustion or burnout (Bakker & Demerouti, 2017). Despite the abundant research on how WFC influences burnout (e.g., Simães, Rodrigues, Gonçalves, Faria, & Gomes, 2021; Terry & Woo, 2020; Wu, Yuan, Yen, & Xu, 2019) there remains a limited understanding of its direct impact on WE. While the JD-R theory does not explicitly propose that job demands affect positive employee outcomes, such as WE, our study unveils a direct impact of job demands on work engagement. This contribution expands the existing body of knowledge by delving into the negative factors that influence WE.

In the highly competitive and demanding Services sector, where unwavering commitment from employees is essential (Sharma & Singh, 2021; Zainal, 2019), certain jobs involve intense emotional labor due to frequent customer interaction (Gulsen & Ozmen, 2020). While meeting customer satisfaction expectations is crucial, maintaining the required behaviors consistently can be challenging (Robbins & Judges, 2019). Employees in the Services sector face significant job demands and grapple with balancing family responsibilities (Panda, Jain, & Nambudiri, 2022; Zainal, 2019), impacting WE among the sector's employees. Despite the sector's challenging nature, WE is vital, characterized by employees being energetic, enthusiastic about their job, and better equipped to deal with the demands associated with the Services sector.

The identified significant and negative relationship between WIF and FIW, and WE emphasizes the critical importance of managing WFC to enhance employee well-being. Consequently, Services sector organizations are encouraged to consider implementing policies and practices that support a healthy work-life balance to mitigate the adverse effects of WIF on employee engagement. Given the long working hours characteristic of the Services

sector, organizations may tailor intervention programs, such as flexible work schedules or family-friendly policies, to specifically address issues arising from work affecting family life. This targeted approach may contribute to improved employee well-being and engagement within the Services sector. Recognizing the crucial role that managers play in creating a positive work environment, organizations in the Services sector are advised to invest in training programs. These programs should emphasize managers' understanding and effective management of WFC, incorporating components such as fostering open communication, providing resources for workload management, and promoting a supportive workplace culture, such as instilling servant leadership among managers. Servant leadership, which prioritizes followers' needs and aims to help them achieve their full potential (Eva, Robin, Sendjaya, Van Dierendonck, and Liden, 2019), may be particularly beneficial in mitigating WFC in the Services sector, with elements like emotional healing, empowerment, and prioritizing subordinates potentially contributing to improved employee well-being and engagement.

Limitation and Future Research

This study is subject to certain limitations that warrant consideration. Firstly, the sample is constrained to the retail, accommodation, and food and beverage sectors exclusively, potentially limiting the generalizability of findings to a broader spectrum of Service sectors. A suggestion for future research involves employing proportionate sampling techniques to encompass a more diverse representation of major Services subsectors, thereby enhancing the external validity of the study. Additionally, the study's sample size is restricted to 150 participants, and while the current sample provides valuable insights, future researchers are encouraged to undertake more extensive data collection efforts to bolster statistical robustness and increase the reliability of the study's findings. Furthermore, the study employs a cross-sectional design, offering a snapshot of relationships at a specific point in time. To deepen understanding, future research might consider adopting longitudinal study designs to capture the dynamic nature of WFC and WE over time. In subsequent studies, including outcome variables such as job performance and turnover intention could offer a more comprehensive understanding of the implications of WFC. Furthermore, investigating potential moderators for the connection between WFC and WE, such as individual factors like emotional intelligence and leadership styles (e.g., servant leadership), holds promise for uncovering nuanced insights into the complex interplay of these variables.

In conclusion, this study confirms that both WIF and FIW negatively impact WE among employees in Malaysia's Services sector, with WIF emerging as a stronger predictor. These findings align with the JD-R theory, which posits that job demands activate the health-impairment process, thereby diminishing WE. The nuanced effects of WIF and FIW on WE underscore the cultural importance of family in collectivist societies like Malaysia, where unmet family obligations due to work demands amplify the negative impact on WE. To address these challenges, organizations should implement policies that foster work-life balance, including flexible work schedules and family-friendly initiatives. Furthermore, investing in managerial training programs to develop supportive leadership styles, such as servant leadership, can help mitigate the adverse effects of work-family conflict and enhance employee engagement. Future research should extend its scope to encompass broader subsectors, larger sample sizes, longitudinal studies, and the exploration of potential moderators to provide a more comprehensive understanding of the interplay between work-family conflict and WE.

References
Aboramadan, M., Albashiti, B., Alharazin, H., and Dahleez, K. A. (2019). Human resources management practices and organizational commitment in higher education: The mediating role of work engagement. *International Journal of Educational Management*, *34*(1), 154-174.

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.

Alamri, M. (2023). Transformational leadership and work engagement in public organizations: promotion focus and public service motivation, how and when the effect occurs. *Leadership and Organization Development Journal*, *44*(1), 137-155.

Allen, I. E., and Seaman, C. A. (2007). Likert scales and data analyses. *Quality Progress*, *40*(7), 64-65.

Ashfaq, B., and Hamid, A. (2021). Person-organization fit and organization citizenship behavior: modeling the work engagement as a mediator. *Asia-Pacific Journal of Business Administration*, *13*(1), 19-39.

Azim, M. T., & 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., & 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., & Sanz-Vergel, A. (2023). Job demands–resources theory: Ten years later. *Annual Review of Organizational Psychology and Organizational Behavior*, *10*, 25-53.

Bellamkonda, N., Santhanam, N., and Pattusamy, M. (2021). Goal clarity, trust in management and intention to stay: The mediating role of work engagement. *South Asian Journal of Human Resources Management*, *8*(1), 9-28.

Bilal, H., Farooq, N., and Hayat, K. (2019). Empirically investigating the impact of employee engagement on counterproductive work behavior of academic staff. *Global Regional Review*, *4*(1), 120-127.

Boccoli, G., Gastaldi, L., & Corso, M. (2022). The evolution of employee engagement: Towards a social and contextual construct for balancing individual performance and wellbeing dynamically. *International Journal of Management Reviews*, *25*(1), 75-98.

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.

Breaugh, J. (2021). Too stressed to be engaged? The role of basic needs satisfaction in understanding work stress and public sector engagement. *Public personnel management*, *50*(1), 84-108.

Brenning, K. M., De Clercq, B., Wille, B., & Vergauwe, J. (2020). Towards a fine-grained analysis of the link between borderline personality pathology and job burnout: Investigating the

association with work-family conflict. *Personality and Individual Differences*, *162*, 110030.

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.

Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work–family conflict. *Journal of Vocational Behavior*, *56*(2), 249-276.

Chakravorty, A., & Singh, P. (2020). Work/family interference and burnout among primary school teachers: the moderating role of emotional intelligence. *Decision*, *47*(3), 251-264.

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

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, *295*(2), 295-336.

Darouei, M., & Pluut, H. (2021). Work from home today for a better tomorrow! How working from home influences work-family conflict and employees' start of the next workday. *Stress and Health*, *37*(5), 986-999.

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). *"Gross Domestic Product (GDP) by State 2021."* Department of Statistics Malaysia Press Release. Retrieved November 16, 2022, from https://v1.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=491&bul_id=L3N nMU44VnA0YjRxVXhuYUpZTmVnZz09&menu_id=TE5CRUZCblh4ZTZMODZIbmk2aWRR QT09

DOSM. (2023). Services Sector First Quarter 2023. Retrieved 3 August, 2023, from: https://www.dosm.gov.my/uploads/release-content/file_20230510113116.pdf

DOSM. (2023b). Employment Statistics, Fourth Quarter 2022. Retrieved 4 July, 2023, from https://v1.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=439&bul_id=b2U 1a3J2VnRuaFNpNmY0Mlh4aUdIdz09&menu_id=Tm8zcnRjdVRNWWlpWjRlbmtlaDk1U T09

Eissa, G., & Wyland, R. (2018). Work-family conflict and hindrance stress as antecedents of social undermining: Does ethical leadership matter?. *Applied Psychology, 67*(4), 645-654.

Eva, N., Robin, M., Sendjaya, S., Van Dierendonck, D., and Liden, R. C. (2019). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, *30*(1), 111-132.

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.

Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: testing a model of the work-family interface. *Journal of Applied Psychology*, *77*(1), 65-78.

Galletta, M., Portoghese, I., Melis, P., Gonzalez, C. I. A., Finco, G., D'Aloja, E., ... and Campagna, M. (2019). The role of collective affective commitment in the relationship between

work–family conflict and emotional exhaustion among nurses: A multilevel modeling approach. *BMC Nursing*, *18*(1), 1-9.

Geisser, S. (1974). A predictive approach to the random effects model. *Biometrika, 61*, 101–107.

Ghislieri, C., Molino, M., Dolce, V., Sanseverino, D., and Presutti, M. (2021). Work-family conflict during the Covid-19 pandemic: teleworking of administrative and technical staff in healthcare. An Italian study. *La Medicina Del Lavoro*, *112*(3), 229–240.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of management review*, *10*(1), 76-88.

Gross, S., & Campbell, N. (2015). Central city vibrancy and new business venturing. *Journal of Entrepreneurship and Public Policy*, *4*(2), 257-271.

Gull, N., Asghar, M., Bashir, M., Liu, X., and Xiong, Z. (2022). Does a family-supportive supervisor reduce the effect of work-family conflict on emotional exhaustion and turnover intentions? A moderated mediation model. *International Journal of Conflict Management, 34*(2), 253-272.

Gulsen, M., & Ozmen, D. (2020). The relationship between emotional labour and job satisfaction in nursing. *International Nursing Review, 67*(1), 145–154

Gurugamage, S. R., Ramanayake, M. N., Iddagoda, A., & Dissanayake, D. H. S. W. (2022). Mediating Role of Employee Engagement on the Relationship between Workplace Spirituality and Employee Job Performance. *Three Seas Economic Journal*, *3*(2), 1-12.

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.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2-24.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014), A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), SAGE, Los Angeles, CA.

Han, X., Chen, S., and Chen, B. (2022). From employee engagement to customer engagement: A multilevel dual-path model of engagement spillover effects in service ecosystems. *Journal of Retailing and Consumer Services*, *64*, 102815.

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.

Herman, J. B., & Gyllstrom, K. K. (1977). Working Men and Women: Inter-and Intra-Role Conflict∗. *Psychology of Women Quarterly*, *1*(4), 319-333.

Ho, B. C., Mustamil, N. M., & Jayasingam, S. (2021). Quality of Work Life and Lifelong Learning Among Working Adults in Malaysia: The Mediating Role ff Employee Engagement. *Malaysian Management Journal, 25,* 99–142

Hofstede, Geert. 1991, Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival, McGraw-Hill Publishing Co.

Holahan, C. K., & Gilbert, L. A. (1979). Conflict between major life roles: Women and men in dual career couples. *Human Relations*, *32*(6), 451-467.

Islam, T., Ahmad, R., Ahmed, I., & Ahmer, Z. (2019). Police work-family nexus, work engagement and turnover intention: Moderating role of person-job-fit. *Policing: An International Journal*, *42*(5), 739-750.

Jamaludin, N. H., Ibrahim, R. Z. A. R., Saputra, J., Dagang, M. M., & Johar, S. S. (2022). Work-Family Conflict as Predictor of Job and Family Satisfaction Among Malaysia Private

Sector Employees. In *Handbook of Research on the Complexities and Strategies of Occupational Stress* (pp. 168-183). IGI Global.

Jankelová, N., Joniaková, Z., & Skorková, Z. (2021). Perceived organizational support and work engagement of first-line managers in healthcare–The mediation role of feedback seeking behavior. *Journal of Multidisciplinary Healthcare*, 3109-3123

Jia, C. X., & Li, J. C. M. (2022). Work-family conflict, burnout, and turnover intention among Chinese social workers: The moderating role of work support. *Journal of Social Service Research*, *48*(1), 12-27.

Karatepe, O. M., & Karadas, G. (2016). Service employees' fit, work-family conflict, and work engagement. *Journal of Services Marketing, 30*(5), 554–566.

King, M. J. (2018). *A Quantitative Explanatory Analysis Examining the Moderating Effect of Family Care Responsibilities on Family-Work Conflict And Employee Engagement Among Employed Individuals in the United States* [Doctoral dissertation, Capella University].

Kisi. (2020). Work-life balance: Best cities worldwide in 2022. Kisi. Retrieved July 5, 2023, https://www.getkisi.com/work-life-balance-2020

Kisi. (2022). Work-life balance: Best cities worldwide in 2022. Kisi. Retrieved July 5, 2023, from https://www.getkisi.com/work-life-balance-2022

Koroglu, Ş., and Ozmen, O. (2022). The mediating effect of work engagement on innovative work behavior and the role of psychological well-being in the job demands–resources (JD-R) model. *Asia-Pacific Journal of Business Administration*, *14*(1), 124-144.

Lee, M. C. C., Idris, M. A., & 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.

Li, J. C., Cheung, J. C., & Sun, I. Y. (2019). The impact of job and family factors on work stress and engagement among Hong Kong police officers. *Policing: An International Journal*, *42*(2), 284-300.

Lim, P., Zawawi, D., Aziz, Y. A., (2024a). Nurturing Work Engagement: Unravelling the Impact of Servant Leadership, Employee Emotional Intelligence, and Work-Family Conflict. *International Journal of Economics and Management, 18*(3), 393-410.

Lim, P., Zawawi, D., & Aziz, Y. A. (2024b). 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., & Wang, G. (2025). Leveraging Autonomy, Feedback, and Social Support to Enhance Work Engagement and Mitigate Turnover Intentions: Evidence from Selected Services Sector in Malaysia. *International Journal of Academic Research in Business and Social Sciences, 15*(1), 937–960.

Malik, P., & Garg, P. (2020). Learning organization and work engagement: The mediating role of employee resilience. *The International Journal of Human Resource Management*, *31*(8), 1071-1094.

Margaretha, M., Saragih, S., Zaniarti, S., & Parayow, B. (2021). Workplace spirituality, employee engagement, and professional commitment: A study of lecturers from Indonesian universities. *Problems and Perspectives in Management*, *19*(2), 346-356.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397-422.

Mayuran, L., & Kailasapathy, P. (2022). To engage or not? Antecedents of employee engagement in Sri Lanka. *Asia Pacific Journal of Human Resources, 60*(3), 584–607

McMillan, H. S., Morris, M. L., & Atchley, E. K. (2011). Constructs of the work/life interface: A synthesis of the literature and introduction of the concept of work/life harmony. *Human Resource Development Review*, *10*(1), 6-25.

Mohammed, Z., Nandwani, D., Saboo, A., and Padakannaya, P. (2022). Job satisfaction while working from home during the COVID-19 pandemic: do subjective work autonomy, work-family conflict, and anxiety related to the pandemic matter?. *Cogent Psychology*, *9*(1), 2087278.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology, 81*(4), 400-410.

Nordin, N. S., & Hamzah, H. (2021). Issues and Challenges of Work Engagement among Lecturers. *International Journal of Academic Research in Business and Social Sciences, 11*(7), 1619–1625.

Opie, T. J., & Henn, C. M. (2013). Work-family conflict and work engagement among mothers: Conscientiousness and neuroticism as moderators. *SA Journal of Industrial Psychology*, *39*(1), 1-12.

Panda, A., Jain, N. K., & Nambudiri, R. (2022). Work–family conflict, affective commitment, leadership and job satisfaction: a moderated mediation analysis. *International Journal of Productivity and Performance Management*, *71*(4), 1469-1489.

Park, H. I., Jang, J., & Nam, J. S. (2023). Physical activity buffers the effects of work-family conflict on work engagement through mastery recovery experience. *Current Psychology*, *42*(1), 348-358.

Pascucci, T., Hernández Sánchez, B., & Sánchez García, J. C. (2022). Being stressed in the family or married with work? A literature review and clustering of work-family conflict. *European Journal of Management and Business Economics*, *31*(2), 239-265.

Petrović, I. B., Vukelić, M., & Čizmić, S. (2017). Work engagement in Serbia: Psychometric properties of the Serbian version of the Utrecht Work Engagement Scale (UWES). *Frontiers in Psychology*, *8*, 1799.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879-903.

Podsakoff, P.M. and Organ, D.W. (1986), "Self-reports in organizational research: problems and prospects"*, Journal of Management 12*(4), 531-544.

Priambodo, E. P., Darokah, M., & Sari, R. E. Y. D. (2019). Peran self efficacy dan iklim organisasi dalam membentuk employee engagement melalui komitmen organisasi. *Psympathic: Jurnal Ilmiah Psikologi*, *6*(2), 213-228.

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.

Robbins, S. P., & Judge, T. A. (2019). Organizational behavior (18th edition, global edition). Pearson.

Şahin, S., & Yozgat, U. (2021). Work–family conflict and job performance: Mediating role of work engagement in healthcare employees. *Journal of Management & Organization*, 1-20.

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., and Thornhill, A. (2019). *Study methods for business students*. Pearson Education Limited. Harlow, United Kingdom. Eighth Edition.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*, 71-92.

Sekaran, U., and Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley and Sons. Seventh edition.

Sharma, A., & Nambudiri, R. (2020). Work engagement, job crafting and innovativeness in the Indian IT industry. *Personnel Review*, 49(7), 1381-1397.

Simães, C., Rodrigues, J., Gonçalves, A. M., Faria, S., and Gomes, A. R. (2021). Work–family conflicts, cognitive appraisal, and burnout: Testing the mediation effect with structural equation modelling. *British Journal of Educational Psychology*, *91*(4), 1349-1368.

Soares, M. E., & Mosquera, P. (2019). Fostering work engagement: The role of the psychological contract. *Journal of Business Research*, *101*, 469-476.

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the royal statistical society: Series B (Methodological)*, *36*(2), 111-133.

Sumari, M., Baharudin, D. F., Khalid, N. M., Ibrahim, N. H., & Ahmed Tharbe, I. H. (2020). Family functioning in a collectivist culture of Malaysia: A qualitative study. *The Family Journal*, *28*(4), 396-402.

Tensay, A. T., and Singh, M. (2020). The nexus between HRM, employee engagement and organizational performance of federal public service organizations in Ethiopia. *Heliyon*, *6*(6), e04094.

Terry, D. L., and Woo, M. J. (2021). Burnout, job satisfaction, and work-family conflict among rural medical providers. *Psychology, Health and Medicine*, *26*(2), 196-203.

Tomietto, M., Paro, E., Sartori, R., Maricchio, R., Clarizia, L., De Lucia, P., ... & 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.

UCSI Poll Research Centre. (2023). *89% Malaysians Are Concerned with The Cost of Living | UCSI Poll Research Centre*. UCSI Poll Research Centre. Retrieved on July 9, 2023 from: https://www.ucsipoll.org.my/poll-finding/89-malaysians-are-concerned-the-cost-living

Vickovic, S. G., & Morrow, W. J. (2020). Examining the influence of work–family conflict on job stress, job satisfaction, and organizational commitment among correctional officers. *Criminal Justice Review, 45*(1), 5-25.

Vyas, L., and Butakhieo, N. (2021). The impact of working from home during COVID-19 on work and life domains: an exploratory study on Hong Kong. *Policy Design and Practice*, *4*(1), 59-76.

Waizenegger, L., McKenna, B., Cai, W., and Bendz, T. (2020). An affordance perspective of team collaboration and enforced working from home during COVID-19. *European Journal of Information Systems*, *29*(4), 429-442.

Wang, Y., Gao, Y., & Xun, Y. (2021). Work engagement and associated factors among dental nurses in China. *BMC Oral Health*, *21*(1), 1-9.

Werbel, J., & Walter, M. H. (2002). Changing views of work and family roles: A symbiotic perspective. *Human Resource Management Review*, *12*(3), 293-298.

Wu, T. J., Yuan, K. S., Yen, D. C., and Xu, T. (2019). Building up resources in the relationship between work–family conflict and burnout among firefighters: moderators of guanxi and emotion regulation strategies. *European Journal of Work and Organizational Psychology*, *28*(3), 430-441.

Yang, F., Fei, Y., Guo, L., Bai, X., & Li, X. (2023). Job crafting intervention for job burnout and work engagement among young construction project management practitioners in China. *Engineering, Construction and Architectural Management*. https://doi.org/10.1108/ECAM-10-2022-0935.

Yang, Z., Qi, S., Zeng, L., Han, X., and Pan, Y. (2021). Work-family conflict and primary and secondary school principals' work engagement: a moderated mediation model. *Frontiers in Psychology*, *11*, 596385.

Yucel, I., Şirin, M. S., & Baş, M. (2021). The mediating effect of work engagement on the relationship between work–family conflict and turnover intention and moderated mediating role of supervisor support during global pandemic. *International Journal of Productivity and Performance Management, 72*(3), 577-598.

Zainal, N. (2019). *Moderating Effect of Emotional Intelligence and Social Support on the Relationship Between Work-Family Conflict, Psychological Well-Being and Job Performance* [Doctoral thesis, Universiti Putra Malaysia]. Universiti Putra Malaysia Etheses.

Zheng, J., Gou, X., Li, H., Xia, N., & Wu, G. (2021). Linking work–family conflict and burnout from the emotional resource perspective for construction professionals. *International Journal of Managing Projects in Business, 14*(5), 1093-1115.