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Impact of Flexible Work Arrangements on the Engagement Levels of Younger Employees

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Abstract

Workplace flexibility has gained substantial attention and relevance in human resource management, particularly during and following the COVID-19 pandemic, especially among young professionals. This study aims to examine how four types of workplace flexibility affect employee engagement. Data were collected from 185 young employees under the age of 30 in 2022 using an online questionnaire distributed via Google Forms. The responses were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM). Findings revealed that both workspace flexibility and operational flexibility significantly and positively influence employee engagement. The study offers meaningful implications for organizational practice and society, while also enriching scholarly understanding of the link between workplace flexibility and employee engagement within the field of human resource management.

Keywords: Workplace flexibility, Young working adults, Employee engagement, Workspace flexibility, Working time flexibility, Functional, Operational flexibility, Flexibility

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Introduction

Work values and preferred working conditions vary across generations, making it crucial to understand the specific workplace expectations of young employees, particularly concerning workplace flexibility, to establish effective communication channels and a positive organizational environment. Recent literature highlights that Generation Z places a strong emphasis on workplace flexibility and values achieving a work-life balance [1, 2]. Moreover, research suggests that organizations with flexible management systems performed better during the COVID-19 pandemic, especially among small and medium-sized enterprises [3]. Additionally, continuous training and technological adaptability have been identified as essential for maintaining work quality [4]. Therefore, human capital plays an essential role in facilitating adaptive changes to ensure organizational survival during crises such as the pandemic [5].

This study explores a relatively new area emerging from growing expectations for workplace flexibility among younger professionals. Nonetheless, existing research indicates that flexibility can also have adverse effects on employee well-being. For example, a report by Ernst & Young [6] found that employees who worked primarily remotely during the pandemic experienced increased burnout and disengagement, which subsequently reduced productivity and retention rates. Consequently, further investigation into how workplace flexibility influences employee engagement is necessary. This study specifically examines the effects of four dimensions of workplace flexibility on engagement.

Despite increasing research on generational differences in workplace needs [7, 8], few studies have explored how workplace flexibility affects employee engagement among young workers. Given that these individuals will soon represent the majority of the global workforce, understanding their preferences is critical. Employees are fundamental to organizational success, and fulfilling their needs through supportive working conditions enhances efficiency, competitiveness, performance, and

sustainability [9]. In an era of high employee turnover, engagement remains a decisive factor influencing productivity and overall performance [10]. Workplace flexibility, therefore, has a vital and direct role in shaping people management strategies [11], as younger employees must feel connected to their work environment to perform effectively [12].

Although numerous studies have investigated employee satisfaction [13], research specifically linking flexibility to engagement among young employees remains limited. Most prior studies examined flexibility's effects on job satisfaction or performance across multiple age groups [11, 14]. There is still a gap in understanding how various forms of workplace flexibility—such as time, workspace, functional, and operational flexibility—affect engagement. This study focuses on young workers' perceptions of these flexibility types and how they shape their engagement levels.

If organizations understand the flexibility needs of younger employees, they are likely to experience improved performance outcomes [15-17]. Hence, this research assists organizations in comprehending how autonomy in flexible work arrangements can enhance performance. Should flexibility prove positively linked to engagement, it would suggest that existing levels of workplace flexibility require enhancement. Implementing such improvements could produce lasting benefits in terms of cost-effectiveness and productivity.

This research contributes novel insights to the field of human resource management, particularly sustainable HRM [18, 19]. Its findings are applicable across diverse organizational contexts and may influence the structure of the future workforce. For instance, young professionals dissatisfied with rigid work environments may increasingly choose entrepreneurship over traditional employment. Therefore, understanding and integrating workplace flexibility is essential for ensuring organizational longevity and sustainability.

Underpinning Theories and Literature Review

This study adopts a multidimensional framework for assessing workplace flexibility, primarily guided by the Conservation of Resource (COR) Theory [20]. The theory posits that employees draw on various personal resources—such as time, energy, and cognitive focus—to fulfill their tasks, and must replenish these resources to prevent stress and burnout [21]. According to Cooper-Thomas *et al.* [22], engagement is tied to emotional warmth and care, aligning with the resource perspective. Beigi *et al.* [23] further describe workplace flexibility as inherently supportive, suggesting that when employees perceive flexibility as an organizational resource, they are more likely to exhibit stronger engagement. Flexibility thus helps employees restore their mental and physical resources, reducing stress, preserving well-being, and enhancing engagement.

Employee engagement

Employee engagement is defined as a positive and fulfilling psychological state characterized by vigor, dedication, and absorption in work [24]. Saks [25] identified two dimensions of engagement: job engagement, reflecting dedication to one's role, and organizational engagement, reflecting loyalty and commitment to the organization. Mercer [26] similarly described engaged employees as those who are deeply motivated to contribute beyond formal job expectations. Bin [27] emphasized that high-involvement HR practices, such as effective training, fair rewards, and transparent communication, significantly foster engagement.

Van Bogaert *et al.* [28] viewed engagement as the combination of willingness and ability to work, while Allam *et al.* [29] connected it with workplace spirituality. Robinson *et al.* [30] highlighted that engagement involves employees' positive attitudes toward organizational values and their drive to improve performance. Ipsos [31] defined engaged workers as individuals who find satisfaction and fulfillment in their roles, suggesting that management should integrate employee needs into strategic planning [32]. Factors such as gender, age, education, tenure, and job level also influence engagement levels [33-35]. Moreover, supportive supervision, fair compensation, and positive peer relationships enhance engagement [36]. Employees with positive feelings about their work exhibit stronger engagement [37], while their perceptions of job nature significantly shape engagement levels [31]. According to Armstrong and Taylor [38], employees' attitudes toward their work determine whether they remain engaged or disengaged in their roles.

Workplace flexibility

In today's technology-driven era, younger professionals have an abundance of career options, compelling organizations to reinvent their work structures to offer more than just financial benefits. Workplace flexibility has become a strategic necessity, not only for retaining employees but also for enhancing motivation and productivity, thereby strengthening organizational performance [33]. Conversely, rigid organizational systems tend to lose talent in an increasingly competitive labor market. Flexibility at work helps younger employees balance professional and personal commitments [1], fostering stronger engagement and, consequently, improved overall performance [14]. The importance of flexibility became even more pronounced during the COVID-19 pandemic, when social distancing accelerated the normalization of remote and flexible work arrangements [11].

Workplace flexibility has been shown to reduce absenteeism and turnover, leading to greater profitability and efficiency for organizations [39, 40]. Autonomy—a key feature of flexibility—is also a major determinant of work-life quality [41]. As such, flexibility occupies a central role in human resource management and industrial sociology, emerging as a vital research focus in modern work systems [11].Companies that embrace flexibility typically adopt different models of flexible work practices suited to their operational contexts [42].

Previous studies have also examined various dimensions of workplace flexibility. Dima *et al.* [43], for instance, found that teleworking promotes individual work-life balance and generates long-term social benefits in labor relations. Gender-based studies by Vandello *et al.* [28] revealed that women tend to prioritize flexibility more than men, possibly because it aligns with social perceptions of femininity, while men may avoid flexible arrangements due to fears of being judged as less masculine [44]. Additionally, younger generations—particularly Generation Alpha—are expected to have a stronger preference for flexibility, given their extensive experience with technology [45, 46].

Rastogi *et al.* [47] described workplace flexibility as the extent to which employees can control where, when, and how they perform their duties, linking it to empowerment and organizational performance [48]. Reilly [49] proposed five categories of workplace flexibility—temporal, numerical, financial, functional, and local—each offering a different lens for understanding flexible work structures. Similarly, Origo and Pagani [33] divided flexibility into qualitative aspects, focusing on skill and task quality, and quantitative aspects, relating to hours and staffing. Căşuneanu [50] also outlined four major forms: contractual, time-based, wage-related, and functional flexibility, which provide a strong foundation for this study. Other researchers have incorporated workspace flexibility as a determinant of job satisfaction, psychological well-being, and productivity [11, 51].

Further, van den Berg and van der Velde [52] identified connections between functional flexibility and personal or job-related variables, while Rastogi *et al.* [47] linked temporal and operational flexibility with quality of work life. From an environmental standpoint, flexible work hours and spaces can reduce commuting and office resource use while improving autonomy and satisfaction [19]. The pandemic prompted organizations to enhance operational flexibility where remote work was feasible, and functional flexibility has gained importance for adapting to fast-changing markets [53]. Accordingly, this study categorizes workplace flexibility into four dimensions: working time flexibility, workspace flexibility, functional flexibility, and operational flexibility.

Working Time Flexibility and Employee Engagement

Working time flexibility refers to the degree of control employees have over scheduling their work hours [47]. Examples include flextime, which allows employees to determine their start and end times within core operational hours; compressed workweeks, which enable longer workdays in exchange for additional days off; flexible shifts, which allow workers to swap shifts with colleagues; and time banking, where accumulated overtime can be exchanged for future leave [54]. Empirical research supports several benefits: Halpern [55] found that flexible scheduling reduces stress, improves physical health, and saves costs, while Hill *et al.* [56] reported that it helps women balance professional and family responsibilities.

Organizations adopt time flexibility primarily to help employees manage their schedules efficiently. Commuting time represents one of the most significant drains on employees' daily hours [57], with congestion during rush hours exacerbating fatigue and absenteeism [58] . Long commutes are also linked to increased stress [59], while both absenteeism and stress are associated with lower engagement and greater work-life conflict [60]. Gazioglu and Tansel [61] further observed that excessive working hours diminish engagement levels.

Accordingly, time flexibility can reduce role conflict and stress by shortening commutes and allowing employees to better balance work and personal life. This aligns with the Role Conflict Theory [62, 63], which posits that individuals possess limited time and energy resources that must be divided between work and family roles. Employees experiencing high role conflict tend to value flexible scheduling more [64, 65]. However, excessive flexibility may also lead to poor time management, reducing engagement [66]. Based on these insights, the following hypothesis is proposed:

H1: There is a positive relationship between working time flexibility and employee engagement among young working adults.

Workspace flexibility and employee engagement

Workspace flexibility refers to the extent to which employees can manage and utilize their work environments, including having control over elements such as the workspace's overall appearance, personalization options, and access to various types of work areas [51]. It also encompasses the ability to regulate indoor environmental conditions such as temperature, lighting, and noise levels [51]. In today's context, many contemporary workspace models have emerged as alternatives to the traditional office setting. These include flex offices, combi offices, co-working spaces, full-time home offices, and partial home offices [11]. A flex office is characterized by the absence of assigned desks, allowing employees to use any available area for specific activities or meetings [67]. In contrast, a combi office provides each employee with a designated workspace—typically within open or semi-open layouts—alongside supplementary spaces designed for particular functions [67]. Co-working spaces, on the other hand, involve employees from different organizations sharing rented environments, where collaborative or

independent work can occur, sometimes supplemented by remote work from home. The full-time home office model entails employees working entirely from home, visiting the organization only when required, while the partial home office model combines remote work and on-site office work.

Interestingly, Pienaar [68] found that the physical location of work is less significant than the employee's emotional coping mechanisms when addressing work-related stress. Schmidt and Neubach [69] observed that home-based work may decrease productivity, as domestic distractions can lead to procrastination. Similarly, Hill *et al.* [70] noted that working from home can blur the mental boundary between professional and personal life, negatively influencing work-life balance.

Therefore, a deeper investigation is required to clarify how workspace flexibility influences employee engagement. Based on the Ecological Systems Theory proposed by Bronfenbrenner and Ceci [71], workspace flexibility enhances the interaction between individuals and their environments. Employees maintain continuous, dynamic exchanges with their social, physiological, and physical surroundings [72]. This theory further posits that workplace settings are interconnected and collectively influence job-related behaviors and processes across different contexts and time frames [73]. It underscores the critical role of the work environment in shaping employee and organizational outcomes, benefiting both individuals and their families. In line with this, the Person–Environment (P–E) Fit Theory emphasizes the balance between an individual's personal characteristics and the environmental resources available to them [74]. Consequently, it becomes essential to examine how aspects of workspace flexibility—such as control over temperature, lighting, noise, organization, aesthetics, and workspace choice—affect employee engagement. When employees possess greater autonomy over their workspace, they are likely to experience stronger engagement, increased effort, and enhanced performance [75]. Accordingly, the following hypothesis is proposed:

H2: Workspace flexibility is positively associated with employee engagement among young working adults.

Functional flexibility and employee engagement

Functional flexibility refers to an organization's ability to effectively utilize the diverse skills of its employees across multiple tasks, allowing it to adapt swiftly to evolving technologies, methods, and market demands [52]. In other words, it represents the process of broadening and diversifying employee competencies to enable them to operate across traditionally separate occupational boundaries [53]. By fostering functional flexibility, organizations can respond more efficiently to future challenges, as a workforce equipped with a wide range of skills enhances adaptability, reduces costs, and boosts overall performance. Additionally, it promotes the humanization of work by providing employees with more engaging and varied tasks, which in turn strengthens job security [52].

From a theoretical standpoint, the Job Characteristics Theory [76] offers a useful framework to explain the link between functional flexibility and employee engagement [77]. Functional flexibility enables employees to operate in multiple roles or departments, making them multi-skilled and capable of adapting to different job requirements. This adaptability can be achieved through continuous learning, training, and skill development initiatives designed to prepare employees for future challenges.

Furthermore, several job design approaches—such as job enlargement, job enrichment, and job rotation—support the development of functional flexibility [52]. Job enlargement involves increasing the number of tasks assigned to employees, while job enrichment enhances the quality of tasks by integrating elements like planning, decision-making, and control. Job rotation, on the other hand, involves transferring employees among various roles or departments to expand their experience. Both organizational training programs and employee participation in external courses can significantly strengthen functional flexibility [11]. Employees who work across different geographical regions also demonstrate a high level of flexibility [52].

It has been suggested that younger generations possess superior multitasking abilities compared to their predecessors, likely due to early exposure to digital technology and information [78]. Moreover, today's young professionals are typically more creative, innovative, and entrepreneurial, which fosters independence and adaptability in the workplace [78].

Robinson [79] highlighted that informal learning activities, such as coaching and performance development planning, are positively linked to employee engagement. Similarly, May *et al.* [80] found that job enrichment enhances employees' sense of meaningfulness at work, which in turn promotes engagement—a finding further supported by Lockwood [81]. Bal *et al.* [82] also reported that flexible career arrangements can enhance engagement and career advancement. In addition, providing opportunities for job enlargement, enrichment, rotation, or even reassignment across different locations contributes to greater engagement and organizational performance [82]. Therefore, the following hypothesis is proposed:

H3: There is a positive relationship between functional flexibility and employee engagement among young working adults.

Operational flexibility and employee engagement

Operational flexibility, often described as workplace flexibility, refers to the extent to which employees have the autonomy to determine how their work is carried out without excessive supervision or interference from higher authorities [83]. Several studies have demonstrated that operational flexibility yields beneficial outcomes for both employees and organizations. For instance, it has been linked to lower turnover intentions and reduced work–family conflicts [84]. Similarly, Clark [85] showed

that operational flexibility contributes positively to employees' work–family balance, while Chiang *et al.* [86] found that job control and supportive work–family policies reduce stress levels in the hospitality sector. In addition, Häusser *et al.* [87] established that operational flexibility is positively correlated with employees' psychological well-being. Within this context, the Result-Only Work Environment (ROWE), where employees are evaluated based solely on outcomes rather than presence, further reinforces operational flexibility [14]. This system allows employees to complete their tasks by a specific deadline without strict adherence to fixed working hours, thereby increasing their control over work schedules.

Zeijen *et al.* [88] emphasized the significance of self-management, suggesting that empowering employees to regulate their own behavior enhances job engagement. Breevaart *et al.* [89] also confirmed that self-management policies, which grant greater freedom in task execution, lead to higher engagement levels. Furthermore, Ullah *et al.* [90] noted that transformational leadership strengthens operational flexibility and promotes long-term organizational sustainability. In line with this, Asad *et al.* [48] argued that transformational leaders influence sustainable human resource practices, which in turn drive innovation and organizational performance. However, Zeijen *et al.* [88] highlighted the need for more research to explore the effects of different self-management strategies on organizational outcomes. Therefore, investigating operational flexibility as part of a self-management framework remains essential to understanding its impact on employee engagement.

In addition, perceived autonomy has been shown to increase employee engagement, as it allows employees to make use of various resources and view their work as being under their personal control [91]. Social Exchange Theory also suggests that positive organizational outcomes often emerge when flexibility is actively practiced [92]. Establishing mutual agreements between employers and employees regarding control over work conditions can strengthen engagement by aligning job expectations and fostering trust. When employers demonstrate concern for employees' long-term well-being, it strengthens the employee–employer relationship and enhances organizational commitment [15]. While Rastogi *et al.* [47] investigated the effects of operational flexibility on quality of life, there is still limited empirical evidence concerning its direct relationship with employee engagement. Hence, further examination is necessary to clarify whether operational flexibility influences engagement, leading to the following hypothesis:

H4: There is a positive relationship between operational flexibility and employee engagement among young working adults.

This study aims to provide a clearer understanding of how different types of workplace flexibility relate to employee engagement, as illustrated in **Figure 1**, which presents the conceptual framework.

Methodology

Sampling frame, sample size, and sampling procedure

A total of 185 young working adults under the age of 30 from Klang Valley, Malaysia, participated in this study. Participants were recruited from diverse professional and ethnic backgrounds to represent the target group of young employees. The snowball sampling method was adopted due to the difficulty in reaching the population, especially during the pandemic period. This approach allowed initial respondents to refer others to participate, resulting in a progressively expanding sample where not all individuals had an equal probability of selection. Data were collected between April 1 and April 10, 2022, through an online survey distributed via email, social media platforms, and other communication channels using a dedicated link.

Research instrument and operationalization of variables

The survey consisted of 45 questions completed by the respondents, developed using Google Forms and reviewed to ensure compliance with ethical standards. All variables were adapted from established literature and measured using a 5-point Likert scale. Specifically, working time flexibility was assessed with 4 items [47], workspace flexibility with 6 items [51], functional flexibility with 5 items [52], and operational flexibility with 5 items [47]. Employee engagement was measured using the nine-item version of the Utrecht Work Engagement Scale [93]. The reliability of the data was confirmed, as all variables had Cronbach's alpha values above 0.7, indicating that the measurements are acceptable, sufficient, and satisfactory [94].

Data Analysis and Results

Demographic profiles

Table 1 presents the demographic characteristics of the respondents. Among the participants, 59.5% were male and 40.5% were female. Age distribution showed that 1.1% were below 21 years old, 17.8% were between 21 and 25 years old, and 81.1% were between 26 and 30 years old. Regarding educational qualifications, 4.9% held foundation, pre-university, or lower, 3.8% had a diploma, 82.1% had a degree or professional certificate, and 9.2% had a master's degree. Marital status indicated that 7.6% were married and 92.4% were single. The majority of respondents, 91.4%, worked in the private sector, while 8.6% were employed in the public sector. Concerning work experience, 14.1% had less than 1 year, 34.6% had 1 to 3 years, 43.2% had more than 3 but less than 5 years, and 8.1% had over 5 years of professional experience.

Table 1. Demographic profiles

Demographic Details	Frequency	Percent (%)
Gender		
Male	110	59.5
Female	75	40.5
Age		
Below 21	2	1.1
21 to 25	33	17.8
26 to 30	150	81.1
Highest education qualification		
Foundation/Pre-U and below	9	4.9
Diploma	7	3.8
Degree/Professional paper	152	82.1
Masters	17	9.2
Marital status		
Married	14	7.6
Not Married	171	92.4
Organization type		
Private sector	169	91.4
Public sector	16	8.6
Years of working experience		
Less than 1 year	26	14.1
1 to 3 years	64	34.6
More than 3 years but less than 5 years	80	43.2
5 years and more	15	8.1

Bivariate correlation

As shown in **Table 2**, the correlations among the independent variables are all below 0.9, indicating that multicollinearity is not a concern. All independent variables, with the exception of working time flexibility (-0.059), exhibit a significant positive correlation with employee engagement. Specifically, workspace flexibility, functional flexibility, and operational flexibility are significantly correlated with employee engagement at $p = 0.001$, with correlation coefficients of 0.402, 0.518, and 0.390, respectively.

Table 2. Bivariate correlations between variables

	Employee Engagement	Operational Flexibility	Functional Flexibility	Workspace Flexibility	Working Time Flexibility
Employee Engagement	1				
Operational Flexibility	.390**	1			
Functional Flexibility	.518**	.521**	1		
Workspace Flexibility	.402**	.502**	.439**	1	
Working Time Flexibility	−.059	.032	.046	−.103	1

Common method bias (CMB)

Since the data in this study were collected from a single source, it is potentially susceptible to common method bias (CMB). Following the recommendations of Guide and Ketokivi [95], both procedural and statistical measures were implemented to mitigate CMB. Procedurally, the questionnaire was distributed with a cover letter explaining the study's purpose and assuring respondents of their anonymity. Statistically, Harman's single-factor test was conducted to evaluate the impact of CMB, and the largest single factor accounted for 31.26% of the variance, which is below the 50% threshold suggested by Podsakoff *et al.* [96], indicating that CMB did not significantly influence the self-reported data.

Measurement model

The reliability and validity of the measurement model were assessed using partial least squares (PLS) structural equation modeling (SEM) **(Figure 2)**. Reliability was confirmed as both Cronbach's alpha (α) and composite reliability (CR) values exceeded the recommended 0.7, indicating satisfactory internal consistency **(Table 3)**. Convergent and discriminant validity

were evaluated using average variance extracted (AVE) and the variable correlation matrix [97, 98]. All factor loadings exceeded 0.50 except for one item of working time flexibility (WT2), which was removed. After its deletion, the AVE values for all constructs were above 0.5, satisfying the criteria for convergent validity [98, 99].

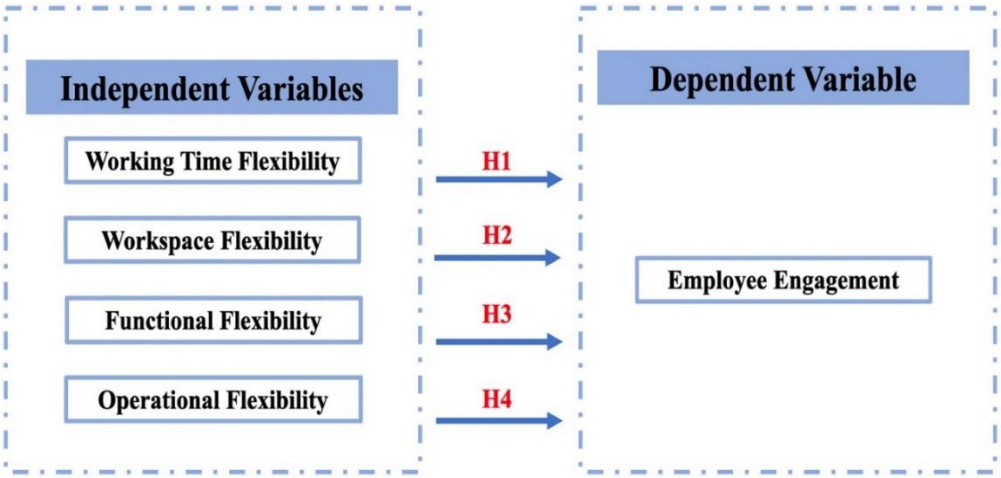

Figure 1. Framework of the study

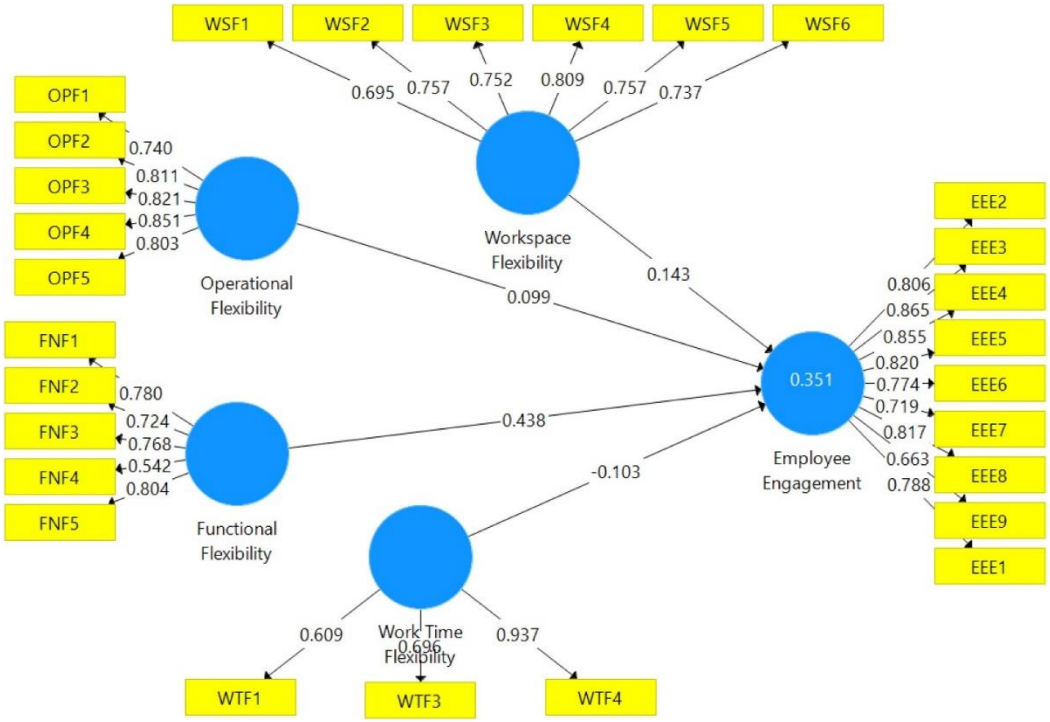

Figure 2. Measurement model

Table 3. Item Statistics of Variables

Variables / Items	Mean	Standard Deviation	Factor Loading
Working Time Flexibility (α = 0.719; CR = 0.799; AVE = 0.578)			
wt1	3.716	1.227	0.609
wt2	3.568	1.265	0.696
wt4	3.532	1.250	0.937
Workspace Flexibility(α = 0.846; CR = 0.886; AVE = 0.565)			
ws1	3.616	1.076	0.695
ws2	3.668	1.034	0.757
ws3	3.574	1.156	0.752
ws4	3.553	1.157	0.809
ws5	3.711	1.184	0.757
ws6	3.490	1.121	0.737
Functional Flexibility (α = 0.778; CR = 0.849; AVE = 0.533)			
f1	3.011	1.247	0.780

f2	3.326	1.117	0.724
f3	3.563	1.095	0.768
f4	2.853	1.376	0.542
f5	3.168	1.188	0.804
Operational Flexibility (α = 0.865; CR = 0.902; AVE = 0.649)			
o1	3.236	1.024	0.740
o2	3.131	1.181	0.811
o3	3.684	0.968	0.821
o4	3.695	1.009	0.851
o5	3.521	1.068	0.803
Employee Engagement (α = 0.925; CR = 0.938; AVE = 0.627)			
EE1	3.116	0.980	0.788
EE2	3.158	0.946	0.806
EE3	3.468	1.072	0.865
EE4	3.432	1.010	0.855
EE5	2.911	1.185	0.820
EE6	3.168	1.192	0.774
EE7	3.826	0.974	0.719
EE8	3.521	1.032	0.817
EE9	3.416	1.014	0.663

Discriminant validity was assessed by comparing the correlations between constructs with the square root of their respective AVEs **(Table 4)**. The AVE values, presented on the main diagonal, were higher than the correlations between the corresponding constructs, thereby meeting the criteria for discriminant validity [99].

Table 4. Results of discriminant validity

	1	2	3	4	5
1. Employee Engagement	**0.792**				
2. Functional Flexibility	0.552	**0.730**			
3. Operational Flexibility	0.391	0.503	**0.806**		
4. Work Time Flexibility	−0.124	−0.003	−0.005	**0.760**	
5. Workspace Flexibility	0.403	0.448	0.499	−0.137	**0.752**

Structural model

The structural model was tested using bootstrapping to assess the significance of the hypothesized path coefficients (**Figure 3 and Table 5**; Ojo & Fauzi [97]). Contrary to expectations, working time flexibility was not significantly related to employee engagement (β = -0.103, p > 0.1). In contrast, workspace flexibility showed a significant positive association with employee engagement (β = 0.143, p < 0.05), as did functional flexibility (β = 0.438, p < 0.001). Operational flexibility, however, was not significantly related to employee engagement (β = 0.099, p > 0.1).

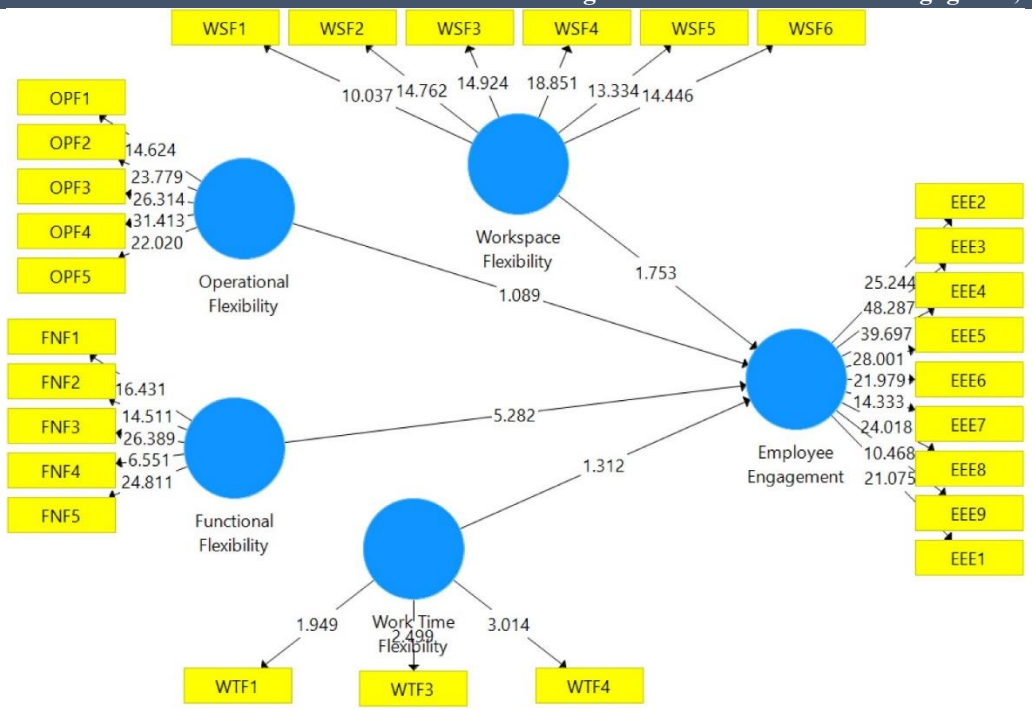

Figure 3. Structural model

Table 5. Results of Hypotheses Testing

Hypothesis	Path	Beta	t- Value	f^2	Decision
H1	WTF → EEE	−0.103	1.312	0.016	Not Supported
H2	WSF→ EEE	0.143	1.753*	0.021	Supported
H3	FNF→ EEE	0.438	5.282***	0.205	Supported
H4	OPF → EEE	0.099	1.089	0.010	Not Supported

Note. ***$p < 0.001$; *$p < 0.05$; WTF: Working Time Flexibility; WSF: Workspace Flexibility; FNF: Functional Flexibility; OPF: Operational Flexibility; EEE: Employee Engagement.

Following Cohen's (1988) guidelines, effect sizes of 0.02, 0.15, and 0.35 were classified as small, medium, and large, respectively. As indicated in Table 4, workspace flexibility (0.021) and functional flexibility (0.205) exhibit small and medium effect sizes, respectively. In line with Chin *et al.* [100], even minimal effect sizes can be considered meaningful when assessing the influence of independent variables on dependent variables. Moreover, the explanatory power of the model was evaluated using the coefficient of determination (R^2), which was 0.337, indicating that the predictors collectively account for 37.7% of the variance in employee engagement.

Discussion

The findings suggest that working time flexibility does not have a significant impact on employee engagement, corroborating earlier studies [66]. One possible explanation is that excessive flexibility can make it challenging for employees to manage their schedules effectively, thereby diminishing overall engagement due to issues with time management and task prioritization. Çemberci *et al.* [101] similarly reported that flexible work policies can lead to work-life balance challenges, while Waples and Brock-Baskin [102] noted that remote work can exacerbate work-family conflict. Palumbo [103] also highlighted that teleworking in the public sector can increase work-related fatigue and negatively affect perceptions of work-life balance. Zhang *et al.* [104] further emphasized that flexible working hours may contribute to extended work periods and disrupt personal life.

Conversely, some research points to positive effects of commuting on work-life balance and engagement. Zhou *et al.* [59] observed a significant negative relationship between commuting and stress, although this differs from the current study's focus on overall employee engagement. Additionally, Gazioglu and Tansel [61] found that long working hours can reduce engagement, and the Resource Drain Model grounded in Role Conflict Theory [62] supports a theoretical link between working time flexibility and engagement, though it does not directly confirm the relationship. These inconsistencies suggest a need for further research to clarify how working time flexibility influences employee engagement, which is critical for informing workplace flexibility practices, especially regarding scheduling.

On the other hand, Hypothesis 2 (H2), proposing a positive association between workspace flexibility and employee engagement among young professionals, is supported by this study. This aligns with Ecological Systems Theory, which posits

that interactions between individual traits and the environment are crucial for understanding behavior [105]. Workspace flexibility facilitates complex person-environment interactions [71], benefiting employees, their families, and organizations. The findings are also consistent with Person-Environment (P-E) Fit Theory, which suggests that outcomes are driven by the alignment between personal attributes and environmental resources [106-108] Armitage and Amar [109] further support that greater control over the workspace fosters higher engagement, enhancing effort and performance.

Nonetheless, certain considerations arise with remote work. Some studies indicate that home environments may introduce distractions, leading to procrastination and reduced productivity [69]. Similarly, Como *et al.* [110] found that teleworking can blur the boundaries between professional and personal life, negatively impacting work-life balance. Overall, this study highlights the importance of enhancing workspace flexibility as a strategy to boost employee engagement and provides a basis for future research exploring this relationship.

Hypothesis 3 (H3), which proposed a positive relationship between functional flexibility and employee engagement among young professionals, is supported by the findings of this study. This outcome aligns with Job Characteristics Theory [76], which explains how functional flexibility can enhance employees' attitudes and behaviors, particularly engagement [77]. Supporting evidence also comes from prior research. For example, Bhakuni and Saxena [111] found that employees who received training opportunities were more engaged than those without such opportunities, as training also helps mitigate stress and conflict management issues. Additionally, a supportive organizational culture that provides learning and development opportunities, along with a positive work environment, enhances engagement [112, 113]. Lyons and Bandura [114] further observed that informal development methods, such as coaching and performance development plans, are linked to higher engagement levels. Albrecht *et al.* [115] reported that job variety, development opportunities, and authority positively influence work meaningfulness, which in turn fosters greater engagement. Finally, the availability of job rotation, enlargement, enrichment, and relocation opportunities contributes to both employee engagement and organizational performance [82, 116]. Given the positive impact of functional flexibility, organizations are encouraged to incorporate it more extensively into human resource policies.

In contrast, Hypothesis 4 (H4), which suggested a positive association between operational flexibility and employee engagement among young professionals, is not supported by the results. This finding does not align with Social Exchange Theory, which emphasizes that the benefits of flexibility depend on its actual utilization [92]. For instance, agreements between employers and employees regarding work conditions can enhance engagement by fostering stronger employee-job alignment, as employers demonstrate concern for long-term employee well-being [15]. The result also contrasts with Zeijen *et al.* [88], who highlighted that self-management—allowing employees to regulate their behavior independently—boosts job engagement [89]. Employees with lower self-management skills, however, may see little improvement in engagement. Additionally, perceived autonomy, closely linked to operational flexibility, has been shown to enhance engagement [91], likely because employees can leverage available resources and integrate multiple work aspects into their responsibilities. Nonetheless, this effect may be limited to individuals who are particularly proactive in managing their work and resources.

Practical implications for organizations

The study emphasizes that workplace flexibility—especially workspace and functional flexibility—positively affects employee engagement, which in turn serves as a catalyst for organizational performance and competitive advantage. Flexible work arrangements allow organizations to reduce costs, meet employee needs, and attract and retain talent while promoting employee well-being. Employees are more likely to invest effort and show commitment when they perceive organizational support and autonomy as expressions of trust and respect. These findings align with Allam and Shaik [41] and Malik and Allam [117], who highlighted the importance of cultivating a supportive work environment, providing adequate training, and implementing workplace flexibility to enhance job satisfaction and quality of work life.

Moreover, widespread adoption of workplace flexibility can contribute to improved work-life balance across society, enhancing employee satisfaction, productivity, and performance through increased engagement. Consequently, this can accelerate the achievement of the Sustainable Development Goal of Good Health and Well-Being while supporting Decent Work and Economic Growth, ultimately fostering a happier and more productive society.

Contribution to knowledge

This study explored workplace flexibility through its dimensions—working time, workspace, functional, and operational flexibility—offering a foundation for future research to examine each dimension in greater depth. It provides a basis for scholars to investigate how different aspects of workplace flexibility relate to various antecedents and outcomes of employee engagement. Additionally, the study presents practical recommendations for leveraging workplace flexibility to enhance employee engagement. Importantly, it contributes novel insights into contemporary work-life balance, particularly among the younger generation in Malaysia, and offers empirical guidance for researchers and organizations seeking to better understand and implement workplace flexibility for youth employees.

Assumptions, limitations, and directions for future research

This study operates under certain assumptions. For example, the survey relied on perceived measures rather than actual behavioral data to explore relationships, which may raise concerns about the validity of the findings. The survey items' ability to accurately represent variables such as workplace flexibility and employee engagement could also challenge the study's validity. Furthermore, the sample consisted solely of Malaysian young working adults under 30, which may introduce bias. Other factors influencing employee engagement may have also affected the observed influence of workplace flexibility.

Several limitations should be noted. The relatively small sample size may constrain the generalizability of the results, and participants' honesty in completing the questionnaire could impact the study's validity, making it difficult to confirm the accuracy of responses.

Future research could address these limitations by exploring additional factors that affect employee engagement. There is limited empirical evidence on generational differences in perceptions of workplace flexibility, so studies focusing on older age groups could be valuable. Gender-based preferences for workplace flexibility also warrant further investigation, as prior research suggests women may place a higher value on flexible work arrangements than men. Finally, while this study emphasized the positive aspects of workplace flexibility, future studies could examine potential drawbacks and unintended consequences.

Recommendations from the study

Based on the findings, several practical recommendations can be made to enhance employee engagement through workplace flexibility.

Regarding workspace flexibility, employers should ensure the work environment supports employees' tasks by optimizing temperature, lighting, noise levels, workspace organization, and overall appearance. Allowing employees to personalize their workspaces and choose their preferred work locations can further enhance engagement.

For functional flexibility, organizations should provide opportunities for employees to take on different roles within their departments, combine tasks across roles, access training, and, where feasible, work in different geographical locations. Job rotation across the broader organization can also promote engagement.

Operational flexibility should not be overlooked, as it plays a key role in employee engagement. Employers should avoid micromanaging employees' activities, instead allowing them to determine how to allocate their time and energy at work. Providing employees with autonomy over their tasks and work priorities ensures they have a meaningful voice in how work is executed, which supports higher engagement levels.

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