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Published Version

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To link to this article DOI: http://dx.doi.org/10.1002/joe.22295

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EMPIRICAL ARTICLE

Job Characteristics for Work Engagement: Autonomy, Feedback, Skill Variety, Task Identity, and Task Significance

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ABSTRACT

This paper investigates the factors influencing employees' work engagement with focus on the experiences of employees in Slovenian and Malaysian organizations. Previous research has shown that the closer an employee's engagement is with an organization, the higher the employee's performance. To explore job characteristics that deliver employees' work engagement, this study employs Hackman and Oldham's job characteristics model, focusing on the core elements of task identity, task significance, skill variety, feedback, and autonomy as a lens to investigate this phenomenon in two different countries. Data from organizations in Slovenia and Malaysia were gathered and analyzed using quantitative methodology. The findings highlight the fact that employees' work engagement is not necessarily employee engagement; whereas the former examines engagement at the psychological level with an individual employee, the latter takes a broader approach in looking at factors that are also organizational. We find that work engagement is affected by job characteristics—task identity, task significance, skill variety, feedback, and autonomy—but these differ according to context, which we have shown can be in relation to the cultural setting of the organization. While in Slovenia, employees' work engagement is influenced by skill variety and feedback (structure), in Malaysia, work engagement is affected by employees' task identity and autonomy. These findings speak to a culture of direct communication in Slovenia as opposed to high-power distance that is often argued in Malaysian organizations. In practice, context must be considered when designing jobs and policies for managing human resources as employees find meaning in work through different job characteristics.

1 | Introduction

Employee engagement is a significant factor for organizational performance (Albrecht et al. 2015; Kumar 2022; Goyal et al. 2024). The term "employee engagement" was first used by Kahn (1990) to characterize the degree of people's physical, mental, and emotional presence at work. In the current dynamic external environment, it becomes important to better understand the concept of employee engagement, its meaning for employees, and implications for employers in hiring and retaining employees.

Organizations with higher revenue growth and profit are those with highly engaged (and not only satisfied) workers (Harter et al. 2002). Yet, the latest Gallup report (2024), estimates that in 2023 globally, only 23% of employees are engaged, 62% are not engaged, and 15% are actively disengaged. Employee engagement

significantly influences absenteeism, turnover intention, number of work-related accidents, customers' satisfaction, productivity, and the organization's profitability (Tandon 2012). Thus, building employee engagement is a useful mechanism to enhance strategy implementation and ultimately organizational effectiveness (Barrick et al. 2015; Reijseger et al. 2017; Nienaber 2019).

In his seminal work, Saks (2006) proposed employee engagement as consisting of job engagement (engagement with job role) and organizational engagement (being part of the organization), all measured by using items "to assess employees' psychological presence in their job and organization" (Saks 2006, 608). That is, while job engagement refers to "the investment of an individual's complete self into a role" (Rich et al. 2010, 617), organizational engagement refers to employees' roles as members of an organization, as they work for the benefit of the organization (Saks 2006). Although there is an increasing interest in the investigation of engagement as an emerging field of research, the absence of a commonly accepted definition has created gaps in theorizing, thus warranting further research to understand the concept (Kossyva et al. 2023). This is particularly important as employee engagement has become a buzzword over the past decade in the press and in various consultancy firms (Gruman and Saks 2011; Saks 2006), despite the concept being relatively new in organizational science (Macey and Schneider 2008b).

Researchers have studied extensively the concept of engagement with particular focus on antecedents (Lesener et al. 2019), link between work engagement and work–life balance (Wood et al. 2020), and organizational perspectives such as leadership (Decuypere and Schaufeli 2020; Islam et al. 2021) and job performance (Yao et al. 2022). Additionally, research conducted on work engagement is typically linked with the job–demands–resources approach (Bakker et al. 2014), or often focuses on employees in specific sectors, predominantly healthcare (e.g. Szilvassy and Širok 2022), but there is a dearth of studies that explore the concept in different cultural contexts such as in cross-country settings. This gap is even more apparent in a recent systematic literature review by Kossyva et al. (2023) whose study offers insights that characterize work engagement as a psychological state in which employees invest their time, mentality, intelligence, energy, enthusiasm, affection and concentration into their work roles, with context not particularly given strong significance in those reviewed articles.

Whereas Kossyva et al. (2023) focused on definitions of employee and work engagement and their antecedents, it was interesting to find that the term "work engagement" was used mostly in psychology journals, while the term "employee engagement" in human resource management (HRM) journals. It is thus not far-fetched to argue that work engagement signifies a part of employees' work experience as it focuses on employees' work activity and performance. In other words, while work engagement focuses more on the individual at a psychological level, employee engagement takes into account the broader organization and teams within which the individual works. Understanding this individual-level construct thus becomes key to the broader organizational advancement for both researchers and practitioners. However, the extant literature shows the limitations of investigations to date on engagement, and by implication work engagement, in different contexts—such as work groups,

countries, firm size, and economic sectors. Such limitations are reflected in a lack of work in developing countries (except for China) and consequently in limited, if any, comparative studies of work engagement across different countries, types of organizations, and industries.

Therefore, this study aimed to further our understanding of the link between job characteristics and work engagement in different cultural contexts. Job design and work engagement of employees in Slovenian and Malaysian companies were examined. Both countries represent diverse cultural, social, and economic contexts, providing a unique opportunity to explore how these contextual factors influence the work engagement levels of employees and subsequently impact organizational outcomes. Furthermore, Gallup survey data in relation to these two countries demonstrate interesting variation from the global average: The percentage of "engaged" employees in Malaysia is 23% (same as world average), versus 17% in Slovenia. Both countries have above average proportions of "not engaged" employees (Malaysia has 67% and Slovenia 79%) and both have below average "actively disengaged" employees (Malaysia has only 11% and Slovenia has 12%). The study contributes to existing research in the following ways. First, it provides a snapshot of preferences in job characteristics across two countries that differ in terms of economic, political, and cultural landscapes. Second, while the concept of work engagement has been studied predominantly from a psychological perspective, this study takes a management and human resource perspective to deliver insights that are readily applicable in closing the gap between theory and practice.

In structuring the paper, the theoretical background is provided in Section 2, and the research hypotheses are formulated. In Section 3, the research methodology is discussed, and the results of the quantitative analysis are presented with an analysis of key findings. Section 4 presents a discussion of theoretical and managerial implications. Finally, Section 5 concludes the paper with a note on the limitations of the study and directions for future research.

2 | Theoretical Background

Employee engagement and job characteristics have several definitions depending upon the perspectives in this field. In this paper, the focus is upon the definition set by Schaufeli, Salano, Gonzales-Roma, and Bakker (Schaufeli et al. 2002, 74), who define engagement as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption." Since it is intended to discuss how job characteristics influence employee engagement, it is necessary to take into consideration the levels of energy, enthusiasm, significance, pride, challenge, and individual persistence at work. Hakanen et al. (2008) found that job resources such as craftsmanship, professional contacts, long-term and immediate results of work, all influence future work engagement. Bhatti et al. (2018) also highlight the role of personal and job resources in boosting work engagement. This is further supported by Schaufeli et al. (2009)'s study which confirmed that increased opportunities to perform in the organization, social support by management, and performance feedback increase work engagement.

According to Schaufeli ([2013](#)), the term "work engagement" is more specific than employee engagement. Unlike employee engagement, which includes employees' relationship with both their work or job and their organization, work engagement denotes employees' relationship only with their work. Work engagement comprises three dimensions: vigor, dedication, and absorption (Schaufeli et al. [2002](#)). Previous empirical studies have reported that work engagement could be stimulated by job characteristics. For instance, previous research has shown that job characteristics, which lead to challenging work and a variety of tasks, will allow for different skills and knowledge provided by the employees, thereby giving them a platform and opportunity to make important contributions to their organizations (Laker et al. [2024](#)). This is argued to result in greater psychological meaningfulness (Saks [2006](#)).

Jobs that have high scores for the five elements of core job characteristics (task identity, task significance, skill variety, feedback, autonomy) (Hackman and Oldham [1976](#)) stimulate and motivate employees to engage positively in their work. Job characteristics are defined as a tool to address problems related to employee dissatisfaction, demotivation and marginal performance (Boonzaier et al. [2001](#), 11). The Job Characteristics Model is a model to guide self-report-based research on job characteristics (Johns et al. [1992](#), 658). It proposes that positive personal satisfaction and high motivation of an employee are obtained when critical psychological experiences (meaningfulness of their work, responsibility for their work outcome, and knowledge of work results) are present. For the realization of positive outcomes, all three psychological states must be present (Hackman and Oldham [1975](#)).

2.1 | Job Characteristics as Drivers of Work Engagement

Macey and Schneider ([2008a](#)) claim that an employer can readily hire people who are more likely to be engaged; however, after hiring such people, the employer must then create the work environment to ensure that the employee's energy can be manifested and sustained. Employees tend to have several roles while carrying out their tasks. This often leads to confusion in their engagement if their roles are not specifically defined so that they have the freedom to define how they deliver results in those roles (Saks [2008](#); Laker et al. [2024](#)). In short, to improve productivity, particularly of knowledge workers, it is necessary to pay attention to the working environment of the employees (Miller [1977](#)), as responsibility for their work outcomes is increased by high job autonomy. An individual experiences positive effects when they gain knowledge of their work results, successfully perform a task, and find it meaningful (Hackman and Lawler Iii, [1971](#); Hackman and Oldham [1976](#)).

Proactive perspectives focus on the "growing importance of employees taking initiative to anticipate and create changes in how work is performed, based on increases in uncertainty and dynamism" (Grant and Parker [2009](#), 317). In this perspective, employees do not do their work passively as ordered by their managers. Technological advances and competitive pressures, the advent of emerging global work, virtual teamwork, telecommunication work, and self-managing teams have increased the frequency of changes at work (Soga et al. [2020](#)). In addition, uncertain environments force employees to engage in proactive behaviors (Soga et al. [2024](#)). Recognizing these behaviors also makes way for the following three perspectives that are related to work design and proactivity:

i. Work that is designed for stimulating proactivity (organizations as actors who structure jobs and/or tasks for employees to perform better).

ii. Task and role readjustment (employees with proactive behavior modify the boundaries of their work cognitively, physically, and relationally).

iii. Role negotiations (employees take initiative to discuss employment arrangements with their managers) (Grant and Parker [2009](#)).

In other words, autonomy allows individuals to define their job roles, while the significance of the task encourages proactive behavior to adjust its boundaries and ensure completion (Soga et al. [2024](#)). Based on these arguments raised in the literature, the following hypotheses ([H1](#) and [H2](#)) are proposed.

Hypothesis 1. *Autonomy positively correlates with employee work engagement.*

Hypothesis 2. *Task significance positively correlates with employee work engagement.*

Employees' work engagement can result in many important outcomes that benefit organizations (Harter et al. [2002](#); Thakre and Mathew [2020](#); Choo [2016](#)). However, work engagement is an individual-level construct and therefore influences the outcomes for individuals. It is related to the individual's perceptions, behaviors, intentions, and attitudes (Saks [2006](#)). Accordingly, individual-level practices influence the individual's work engagement. For instance, knowledge of work results is increased by high feedback. It is predicted that feedback increases the probability that "individuals will find work meaningful, will experience responsibility for work outcomes, and will have trustworthy knowledge of the results of their work" (Oldham and Hackman [2010](#), 465). Today, workers can communicate via mobile devices wherever they are and therefore feedback could still be given and received irrespective of the work environment. The present generation believes that they can work from home, in the bus or train, in the restaurant or a coffee shop, and in the office or a studio. Accordingly, feedback can take various forms, be it verbal or textual. This also offers a level of autonomy for the present generation that also believe their jobs should give them higher levels of autonomy in decision-making (Christian et al. [2011](#)). Positive feedback and rewards by organizations to employees were found to also have increased employees' work engagement (Robert and Davenport [2002](#)). The following hypothesis ([H3](#)) is thus put forward based on the arguments raised.

Hypothesis 3. *Feedback positively correlates with employees' work engagement.*

Employees' experience of their work as meaningful is enhanced by skill variety and task significance. Brass ([1981](#)) argues that the tasks associated with central positions require a greater variety

of skills and talents. Skill variety is likely to be affected by the nature of an employee's network. An open network can provide employees with a variety of communications to facilitate creative solutions and enhance their skills. Employees with a variety of skills will be able to complete their tasks more effectively and efficiently and feel engaged with the organization. Previous research has shown that employees were more engaged with their work when organizations provided them opportunities for professional development and to enhance their variety of skills (Timms and Brough 2013). With a variety of skills, employees can increase their working abilities and manage their careers (Jyoti and Rajib 2016). They have the skills to deliver good quality work and in turn increased productivity (Upasna 2014). Organizations that provide their employees with skill variety will therefore enhance their motivation and increase their work engagement (Ryan and Deci 2000). The tendency for employees to leave their organizations decreased when the organizations gave them opportunities to develop their skills and knowledge (Alisha et al. 2016). Based on these arguments raised in the literature review, the following hypothesis (H4) is postulated:

Hypothesis 4. *Skill variety positively correlates with employee work engagement.*

According to Grant and Parker (2009, 320), work could be redesigned by employees or organizations "to alter the structure and content of the work, with the goal of improving outcomes such as employee motivation, performance and well-being". The authors distinguish between two viewpoints about work design: the relational perspective and the proactive perspective. Relational perspectives "focus on how jobs, roles, and tasks are more socially embedded than ever before, based on increases in interdependence and interactions with coworkers and service recipients" (Grant and Parker 2009, 317). Indeed, the relational architecture of jobs refers to "the structural properties of work that shape employees' opportunities to connect and interact with other people" (Grant 2007, 396). The relational architecture of jobs increases employee motivation to deliver a pro-social difference, which results in their persistence, helping behavior and greater effort (Grant 2007). Research done by Bon and Shire (2017) has also shown that employees were more engaged in their work when they felt that they had more freedom to handle their tasks, although the tasks were challenging. The following hypothesis (H5) is drawn based on these arguments in the literature.

Hypothesis 5. *Task identity positively correlates with employee work engagement.*

The relational perspective on work design refers to the social context, that is, the "interpersonal interactions and relationships embedded in and influenced by jobs, roles and tasks" (Grant 2007, 396). Social context could play an important role in shaping employees' expectations and behaviors (Grant and Parker 2009). For instance, a high level of engagement can result in higher organizational commitment, performance and health (Halbesleben 2010). Sonnentag (2003) showed that employees who experienced positive work outcomes were more engaged in their organizations. Schaufeli and Bakker (2004) also noted that employees who were engaged in their organizations had higher levels of commitment, ultimately reducing the turnover rate.

TABLE 1 | Utrecht work engagement scale (*Source*: Schaufeli et al. 2006).

Item	What is being measured?
1. At my work, I feel bursting with energy	Vigor
2. At my job, I feel strong and vigorous	Vigor
3. I am enthusiastic about my job	Dedication
4. My job inspires me	Dedication
5. When I get up in the morning, I feel like going to work	Vigor
6. I feel happy when I am working intensely	Absorption
7. I am proud of the work that I do	Dedication
8. I am immersed in my work	Absorption
9. I get carried away when I am working	Absorption

On the other hand, lower employee engagement can result in higher turnover intentions (Halbesleben 2010; Saks 2006). Schaufeli and Bakker (2004) claimed that lower engagement had led to withdrawal from jobs, low performance, low commitment, and low job satisfaction. Employee engagement is perceived as a driver of increased productivity and job performance. It is an important factor for an organization to compete and succeed (Gruman and Saks 2011) since "engaged workers are able and willing to 'go the extra mile'" (Bakker and Demerouti 2007, 4). It is thus of great significance that both scholars and practitioners understand what drives employee engagement in today's uncertain and fast-changing work environment.

3 | Research Methodology

This study followed a quantitative approach. Measures of engagement were supported by a clear theoretical background and statistical evidence of their validity and reliability. The Utrecht Work Engagement Scale (UWES) is the most commonly used scientifically derived measure of engagement and is widely accepted for its robustness (Schaufeli et al. 2006). Measurements such as UWES can help identify the personality type of employees, which in turn assists employees to look for new ways to interact with people. UWES-9 is a well-established tool used to measure work engagement that has been applied in a variety of sectors and several countries across Asia, Africa, Europe, Australia, and North America (Bakker 2009; Balducci et al. 2010; Gwamanda et al. 2024; Domínguez-Salas et al. 2022). In short, UWES has shown satisfactory psychometric properties since the "three subscales are internally consistent and stable across time, and the three-factor structure is confirmed and is invariant across samples from different countries" (Schaufeli and Bakker 2004).

Table 1 shows the nine items by which employee engagement was measured. The respondents were asked about how they feel regarding their jobs and how often they get this feeling. Available answers were: 0 (never), 1 (almost never—a few times a year or less), 2 (rarely—once a month or less), 3 (sometimes—a few times a month), 4 (often—once a week), 5 (very often—a few times a week), and 6 (always—every day) (Schaufeli et al. 2006).

TABLE 2 | Job diagnostic survey (Part 1) (*Source*: Idaszak and Drasgow 1987).

Item	What is being measured?
1. How much autonomy is there in your job? That is, to what extent does your job permit you to decide on your own how to go about doing the work?	Autonomy
2. To what extent does your job involve doing a "whole" and identifiable piece of work? That is, is the job a complete piece of work that has an obvious beginning and end? Or is it only a small part of the overall piece of work, which is finished by other people or by automatic machines?	Task identity
3. How much variety is there in your job? That is, to what extent does the job require you to do many different things at work, using a variety of your skills and talents?	Skill variety
4. In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?	Task significance
5. To what extent does doing the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing-aside from any "feedback" co-workers or supervisors may provide?	Feedback

3.1 | Data Collection

Questionnaires were distributed in parallel to Slovenian and Malaysian private sector organizations to test the hypothesis as presented as part of the literature review. The researchers obtained a directory of private sector organizations registered with the Ministry of Labor, Family, Social Affairs, and Equal Opportunities in Slovenia ($n = 20,000$) and Ministry of Ministry of Human Resources, in Malaysia ($n = 15,000$). The lists were further filtered to exclude organizations with less than 50 employees, and the final sample was determined by using a simple random sampling technique. It comprised 196 respondents from Slovenia and 172 respondents from Malaysia. Survey questionnaires were distributed to top and middle management of the selected organizations.

Response rate was 60.2% from Slovenia (118 out of 196) and 87.2% from Malaysia (150 out of 172). After screening the returned questionnaires, 118 sets of questionnaires from Slovenia and 150 sets of questionnaires from Malaysia were found to be useable for data analysis. The survey questionnaires were completed and returned anonymously to ensure participant engagement and avoid common source and non-response bias. However, due to participants' self-reporting, there may be unconscious bias on their perception of their workplaces (Podsakoff et al. 2003). Tables 2 and 3 show the items by which the various job characteristics were measured as argued by Idaszak and Drasgow (1987).

3.2 | Findings

Using the Statistical Package for the Social Sciences (SPSS) software, the validity of the construct (factor analysis) was measured. The factor analysis showed that the items with factor loadings more than 0.5 were loaded on each factor, confirming that the main variables have been measured correctly. An item with factor loading of less than 0.45 was omitted from further analysis. A reliability test was conducted to get Cronbach's alpha value = 0.899, which is at the good level (Sekaran 2010). Upon that, the mean of engagement items for each respondent was calculated.

The responses were averaged to 8 items, to create an engagement measure, that is, to obtain a score for each respondent to be further used as a dependent variable.

Secondly, there are ten statements (see Table 3), two of which measure each of the five job characteristics. On a seven-point ranging scale from 1 (very inaccurate) to 7 (very accurate), the respondents could express how accurately a particular statement described their work. Details are presented in the table below.

Using SPSS statistical software, validity of autonomy (factor analysis), task significance, feedback, skill variety and task identity were calculated. For Slovenian and Malaysian data, the factor validities for all five job characteristics were achieved. The reliability was also tested. In Slovenia, the results showed appropriate reliability for all five job characteristics: autonomy (Cronbach's alpha = 0.779), task significance (Cronbach's alpha = 0.789), feedback (Cronbach's alpha = 0.798), skill variety (Cronbach's alpha = 0.817) and task identity (Cronbach's alpha = 0.699). Meanwhile in Malaysia, it also showed a high level of reliability for all the job characteristics: autonomy (Cronbach's alpha = 0.778), task significance (Cronbach's alpha = 0.786), feedback (Cronbach's alpha = 0.776), skill variety (Cronbach's alpha = 0.784) and task identity (Cronbach's alpha = 0.786). This means that all of the items were valid and reliable, and therefore, this study could proceed for further analysis. Table 4 presents the reliability test for Slovenia and Malaysia.

Multiple regression analysis was conducted to examine the relationship between independent and dependent variables. Table 5 shows the findings of multiple regression analysis for data collected from Slovenian organizations.

Job characteristics (autonomy, feedback, task significance, skill variety, and task identity) were tested to determine which of them influences employees' work engagement. In Slovenia, the results show that there is a significant positive relationship between feedback and work engagement, where $p = 0.01$ (sig. $p < 0.01$). Table 5 also shows a highly significant positive relationship between skill variety and work engagement with $p = 0.00$ (sig. $p < 0.01$). This means that increased feedback to employees

TABLE 3 | Job diagnostic survey (part 2) (*Source*: Idaszak and Drasgow 1987).

Item	What is being measured?
1. The job requires me to use a number of complex or high-level skills	Skill variety
2. The job is arranged so that I can do an entire piece of work from beginning to end	Task identity
3. Just doing the work required by the job provides many changes for me to figure out how well I am doing	Feedback
4. The job allows me to apply multi skills	Skill variety
5. This job is one where a lot of other people can be affected by how well the work gets done	Task significance
6. The job gives me a chance to use my personal initiative and judgment in carrying out the work	Autonomy
7. The job provides me with the chance to completely finish the pieces of work that I begin	Task identity
8. After I finish a job, I know whether I performed well	Feedback
9. The job gives me considerable opportunity for independence and freedom in how I do the work	Autonomy
10. The job itself is very significant and important in the broader scheme of things	Task significance

TABLE 4 | Reliability and validity test.

Variables	No. of items	Cronbach's alpha value (Slovenia)	Cronbach's alpha value (Malaysia)
Autonomy	2	0.779	0.778
Task significance	2	0.789	0.786
Feedback	2	0.798	0.776
Skill variety	2	0.817	0.784
Task identity	2	0.699	0.786

on their work and skill will increase their work engagement. Similarly, management can reflect on feedback from employees in relation to their work tasks, workflows, progress, workload, and work conditions and make relevant adjustments. For skill variety, employees equipped with higher skill sets tend to complete their responsibilities more effectively and efficiently. This increased their commitment and directly increased their work engagement with the organization. In Malaysia, the findings differ and are a bit more nuanced. Table 6 shows the multiple regression analysis with data from the Malaysian organizations where we find significant relationships between autonomy and task identity with employee engagement.

As shown in Table 6, the *p* value for the autonomy factor is $p = 0.032$, which is considered significant ($p < 0.05$). This means that employees will be more engaged with the organization if there is greater delegation to them, allowing them the autonomy to make decisions, manage relevant activities, or arrange their own tasks. Additionally, the results also reflect that there is a significant relationship between task identity and work engagement, where $p = 0.039$ (sig. $p < 0.05$). It shows that if the employees have higher level of freedom to work independently and complete their tasks, they are more likely to be engaged with the organization. These findings are consistent with studies by Cohen et al. (2002) and Tu et al. (2008).

4 | Discussion of Findings

Existing studies about work engagement show a positive relationship between work engagement and job characteristics (see Richardsen et al. 2006; Bakker et al. 2007). Macey and Schneider (2008a) claimed that an employer who already has engaged

TABLE 5 | Coefficients of multiple regression analysis (Slovenia).

Model	Coefficients				
	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	*t*	Sig.
1 (Constant)	1.588	1.058		1.500	0.136
Autonomy	0.149	0.081	0.154	1.844	0.068
Feedback	0.246	0.094	0.220	2.620	0.010**
Task significance	0.100	0.107	0.105	0.932	0.353
Skill variety	0.387	0.079	0.408	4.915	0.000**
Task identity	0.126	0.110	0.129	1.153	0.251

Note: $R^2 = 0.282$; Adjusted $R^2 = 0.250$; *F* value = 8.795; $N = 118$.

TABLE 6 | Coefficients of multiple regression analysis (Malaysia).

Model	Coefficients				
	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	4.238	0.926		4.575	0.000
Autonomy	0.138	0.064	0.204	2.160	0.032*
Feedback	0.116	0.066	0.156	1.756	0.081
Task significance	0.078	0.074	0.093	1.055	0.293
Skill variety	0.160	0.081	0.167	1.967	0.051
Task identity	0.140	0.067	0.191	2.081	0.039*

Note: $R^2 = 0.282$; Adjusted $R^2 = 0.250$; F value = 8.795; $N = 118$.

TABLE 7 | Results of the relationship between job characteristics and work engagement.

Job characteristics	Results (Slovenia)	Results (Malaysia)
Autonomy	Not significant	Significant
Feedback	Significant	Not significant
Skill variety	Significant	Not significant
Task significance	Not significant	Not significant
Task identity	Not significant	Significant

employees would also need to create a work environment where the employees' energy could be manifested and sustained. Their argument is that jobs can be redesigned to include more elements such as increasing skill variety, autonomy, feedback, and/or task identity to enhance employees' work engagement. Results in this study partially confirm the above findings (see Table 7).

The results have shown that job characteristics are important drivers of employees' work engagement and need to be taken into consideration, especially in today's rapidly changing work environment. The findings highlight the importance of crafting job descriptors to increase employee engagement (Laker et al. 2024). Managers and/or owners of organizations can use these insights to inform local practices and leverage job characteristics to increase work engagement among employees. The contemporary workforce expects from their employers more work flexibility. Although there are five core job characteristics that can influence employee engagement, the results from Slovenia and Malaysia have particularly pointed at three out of the five.

First, feedback is found to be an important antecedent of employee work engagement. This confirms previous studies (Schaufeli and Bakker 2004; Bakker et al. 2011a) which show that honest performance feedback is one of the job resources that increases employee engagement (i.e., levels of vigor, dedication, and absorption). Second, we also find skill variety as being an important antecedent of employee work engagement. If a job requires the usage of a variety of different skills, employees are more engaged in their work when they face higher levels of challenge for their task, enabling them to deploy their skill variety

(Bakker et al. 2011b). These first two findings were particularly so for Slovenia in Central Europe. Whereas these results do not sufficiently provide the basis for us to generalize about the culture of this Central European nation, it is indicative of an organizational culture of openness that appreciates directness of conversations in manager–employee relations. Whereas in some cultural settings where honest feedback on a given task may be taken as insensitive or rude and therefore alienate employees (Giri 2006), in Slovenia, as our findings show, directness and honest performance feedback deliver high work engagement. This is coupled with an appreciation for skill variety, which is indicative of a tendency toward neo-generalist ideals as opposed to hyper-specialism that European author Kenneth Mikkelsen and Richard Martin have argued in their 2016 book, *The Neo-Generalist*. While skill variety is arguably valued in most cultural settings (vis-à-vis the common axiom "jack of all trades, master of none"), the idea of technological diversification in Europe (Castellacci et al. 2019) provides plausible reasons for the high skill variety's impact on employee work engagement observed in Slovenia. Additionally, the European recognition of skills shortages, which has led to several of its countries making concerted efforts in developing skill formation regimes, potentially explains the value of skill variety in Slovenia (see Capsada-Munsech and Valiente 2020).

In Malaysia, the findings were different and a bit more nuanced as it is autonomy and task identity that deliver employee work engagement. Third, autonomy facilitates active mastery experiences because it gives individuals opportunities to acquire new skills and master new responsibilities (Parker 1998). By developing social support or changing work procedures, employee autonomy can be enhanced, and this can create a basis for work engagement (Bakker et al. 2011a). The results obtained in Malaysia further confirms such previous research. In the Malaysian context, there seemed to be increased need for autonomy in organizations in order to gain respect and in some cases, power as autonomy can sometimes be completely unrelated to employee work engagement (Christian et al. 2011). These findings may therefore be more nuanced so that it is not so much about employee work engagement but about the individual wanting to have control. In a cultural setting such as Slovenia where our findings do not show any significant correlation between autonomy and employee engagement, power distance could not be possibly higher than in Malaysia since a culture

of direct communication, seen in Slovenia, works both ways in manager–employee relations. However, in Malaysia, which is a highly multiracial society with unique historical traditions spanning Chinese, Malay, and Indian influences as well as British colonialism, high power distance is often negotiated in work environments (Bakar and Mustaffa 2011). Autonomy and task identity as important ingredients for enhancing employee work engagement therefore offer individuals the platform to demonstrate their uniqueness, exert control, and take pride in the tasks achieved.

4.1 | Theoretical Implications

The research findings show that job characteristics are significantly correlated with work engagement, but while skill variety and feedback (structure) influence work engagement (individual's behavior) (Brass 1981) in Slovenian organizations, it is autonomy and task identity that are significantly correlated with work engagement in Malaysian organizations. We have argued that this might be due to the different cultural and organizational practices in these countries, where Malaysian employees value freedom more and prefer to work independently from beginning to the end of a task. As explained by Hackman and Oldham (1976) employees feel that their work is more meaningful to them if they are more engaged in given tasks.

Feedback increases employees' capability to engage (Grant and Parker 2009), nurtures learning culture, improves job competence, and stimulates the process of giving and gathering advice (Bakker 2009). As Brass (1981) explained, employees occupying centralized positions are more likely to get feedback from middle managers or agents. Feedback can also be sought because of task complexity. It could be predicted that as a job requires the use of variety of skills, employees are more likely to seek these skills from coworkers and, therefore achieve higher centrality in learning and advice networks. There is therefore room for theorizing the linkage between feedback practice and skill variety in employee work engagement.

Additionally, it could be claimed that when employees satisfy their personal need for a meaningful job, they are likely to be more engaged in gaining knowledge and skills from coworkers (Laker et al. 2024). Although Schaufeli et al. (2009) found that autonomy increases work engagement, the results obtained in Slovenia support the findings of Christian et al.'s study (2011), which stated that autonomy is almost not related to work engagement. This suggests that other factors, such as feedback, skill variety, task significance, task identity, and influence engagement must be given higher attention in our theorizing. However, the findings from Malaysia confirmed Schaufeli et al.'s (Schaufeli et al. 2009) study, showing that autonomy had a significant effect on employee work engagement. Contradicting their findings, however, is that task significance has not been proven as an antecedent of employee engagement. Employees will be engaged more with their work if they understand that their roles have a significant impact on the well-being of others (Hackman and Oldham 1976). In addition, it seems that the industry (IT sector) also influences the employees' perception of task significance and its impact on their level of engagement, which needs further empirical exploration.

Cross et al. (2001) explained that people who are experts in their field are more likely to fall behind in their work, due to too-high involvement in invisible work associated with giving advice and sharing knowledge with others. Additionally, Brass et al. (2004) stressed that a high degree of employee centrality can cause negative outcomes such as conflicting expectations and stress. This brings to the fore new areas for future empirical investigation such as an employee's network, particularly their centrality, their level of task expertise and recognition within their network of such expertise, their own willingness to share with others their knowledge, and the overall knowledge sharing climate within the organization among others. Additionally, further research could investigate whether there is a negative correlation between high employee centrality and employee engagement.

4.2 | Managerial Implications

The findings suggest that there is variation of significance of job characteristics for work engagement in different cultural contexts. Human resource professionals should consider how practices and work environment can highlight those characteristics that may be more important to nurture and maintain employees' engagement with their work tasks. Finally, shedding a light on the differential value of each job characteristic for work engagement in different cultures raises awareness for organizations who wish to attract talent from different countries or have/aim to have operations in other countries.

5 | Conclusions

5.1 | Key Takeaways

This study has made contributions to human resource management and development studies. This research is cross-cultural, conducted to determine whether the results are characteristic of only one country or whether the results can be generalized globally. The results showed not only that job characteristics influence employees' work engagement, but also that the cultural context impacts which job characteristics are significant for employees. The findings show that different environments or countries show different job resources or job characteristics influencing employee engagement. Therefore, organizations need to design or restructure their operation systems, administrative procedures, and management processes to enhance the five core job characteristics to suit the working culture and practices in different countries. In conclusion, the organizational goal should be not only to create a high level of work engagement but also to sustain it. One way to achieve this is through changes at the job-design level. Employees should be able to use a variety of skills and knowledge in their jobs and receive enough feedback on their job performance to remain continuously engaged in their work.

5.2 | Limitations

The lack of precise definition and measurement for work engagement in the extant literature present conceptual challenges to studies in this field (Masson et al. 2008). In addition, when measuring work engagement, the potential drivers of engagement

might not be important for all employees. For instance, increasing autonomy of a job is not likely to improve work engagement for those employees who already perceive enough autonomy in their work. Furthermore, if an organization wants to increase work engagement, it is necessary to ensure well-integrated and connected practices and programs that focus on developing and measuring employee engagement (Gruman and Saks 2011). Another limitation is the lack of control variables. Whereas this has enabled us to identify correlations between job characteristics and work engagement without external influences, it also means that potential other factors have not been accounted for. Therefore, in future studies the use of questionnaires should be supplemented with more in-depth interviews with human resource managers and employees to gain their subjective views into the phenomenon.

5.3 | Future Research Directions

While this study has broken new ground and offered deep insight for both Slovenia and Malaysia, future research could employ a mixed methodology approach to offer a more comprehensive perspective on the findings. Additional extensions of future work could also take into consideration the influence of an individual's involvement in peer networks and perceptions of their firms as learning organizations (Varshney 2020). Perhaps types of networking other than for learning and advice may also be important in the context of employee engagement (such as knowledge networks). For instance, it has been shown that tasks associated with central management positions require a greater variety of skills and talents. If skill variety increases employee work engagement, and employee centrality requires higher skill variety, it might be the case that employee centrality influences employee work engagement via skill variety. Extensions of current study could involve extending our understanding of the impact of job characteristics on work engagement for generations Y and Z (Plakhotnik et al. 2024). Finally, studies of this kind in several other countries across the world where researchers have access could help unravel work engagement in even more cultures and work contexts.

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