
Advancing Work-Life Equilibrium through Employee Engagement and Innovation

Vidhu Gaur

MDI Gurgaon, Haryana, India

Keywords

Information Technology, Innovation, Leadership, Employee Engagement, Job Satisfaction, Human Resource Professionals.

Abstract

The importance of employee engagement and work happiness cannot be overstated in the context of organisational success, especially within the highly competitive Information Technology (IT) industry. This abstract presents a comprehensive study that examines the complex correlation between employee engagement and job satisfaction as well as the employee innovation and job satisfaction within the IT industry. The research utilises quantitative surveys and a standardised questionnaire to collect data from information technology workers across different job positions as well as the stages of expertise. The study evaluates the employee engagement influences, employee innovation, job satisfaction and identifies the reasons that impede all engagement, innovation and satisfaction levels. SPSS-22 is employed for doing descriptive analysis and regression analysis.

The study's primary findings indicate a robust and favourable association between employee involvement and job satisfaction specifically within the IT industry. Employees who are enthusiastically involved in their work have been found to experience higher levels of job satisfaction, enhanced productivity, and a stronger sense of dedication towards their respective organisations. The study additionally finds several factors that contribute to involvement within the IT business, including but not limited to possibilities for enhancing skills, acknowledgment of achievements, and the congruence between personal and organisational ideals. In contrast, the research emphasises the obstacles that could hinder the level of IT employee engagement and job satisfaction. These issues encompass an overwhelming workload, an absence of equilibrium between work and personal life, and a scarcity of prospects for career progression. This link is further examined by considering factors such as leadership quality and communication within organisations, which are seen as influential variables.

The research highlights the importance of cultivating employee engagement and employee innovation as a strategic necessity for IT organisations aiming to augment job satisfaction, retain exceptional personnel, and attain sustained success. This publication offers pragmatic insights and suggestions for human resources professionals and organisational leaders to enhance levels of engagement, foster job happiness, and ultimately optimise the performance and well-being of information technology personnel. In summary, this research provides significant contributions to investigate the composite relationship between employee engagement as well as employee innovation on work satisfaction within the information technology industry. This statement underscores the belief that organisations functioning within this industry consider a motivated and engaged staff to be a crucial asset. Furthermore, it suggests that endeavours aimed at improving employee engagement can significantly influence job satisfaction, organisational performance, and employee retention.

Introduction

The evolution of human resource management has witnessed a continuous transformation, marked by evolving expectations from both employees and employers. Organizations have shifted from a paternalistic approach to one focused on guiding and mentoring, eventually fostering a nurturing and growth-oriented environment that encourages employees to make dynamic decisions. Performance management has evolved from mere assessments to fostering a more symbiotic relationship between employees and employers. It's about creating an environment where employees feel valued, supported, and motivated to contribute their best while aligning their goals with the organization's objectives. This shift involves

continuous feedback, coaching, and development opportunities rather than just annual reviews. It's about establishing clear communication channels, setting achievable goals, and providing the necessary resources for employees to thrive. When organizations prioritize this relationship, they often see increased engagement, productivity, and overall satisfaction among their workforces.

The persistent adverse effects of the ongoing COVID-19 pandemic have led to deteriorating working conditions for employees, increased psychological stress, and concerns about job security (Jin et al., 2022). In such challenging business environments, organizations are compelled to adopt innovative processes and strategies to ensure adaptability and sustainability. Organizational innovation encompasses a broad spectrum, including research and development (R&D), marketing, processes, products, and managerial innovation. Recognizing the pivotal role of employees, particularly in service industries, our focus is primarily on Innovative Work Behaviors (IWBs).

The importance of IWB is well-established in the literature on organization and human resources management. For instance, Li et al., (2019) stressed its importance in building organizational sustainability and gaining a competitive edge, while Anderson et al. (2014) argued that understanding the factors that enhance employees' IWB is critical for organizational success. Earlier research by Scott & Bruce (1994) highlighted the connection between IWB and the strategic survival of organizations in various social and economic contexts, emphasizing the need for further exploration of the individual and organizational factors that facilitate IWB. Similarly, IWB is crucial not only for innovation-based companies or roles but for all members of an organization. Recognizing the prominence of driving IWBs, researchers have increasingly focused on understanding its prerequisites and predictors (Tian et al., 2021).

In their endeavor to stimulate and promote IWBs among employees, managers encounter various challenges, such as gauging employees' readiness for innovation, addressing disparities in the work environment, and overcoming potential hindrances rooted in organizational culture (Tan et al., 2021). In this context, we propose that employee engagement (EE) has the potential to facilitate employees' IWBs. The concept of EE has gained widespread recognition among academics and practitioners in current time period (Saks and Gruman, 2014; Bakker and Albrecht, 2018; Sahni, 2021). While a substantial body of research on work engagement and creativity exists, it has predominantly been conducted within Western contexts (Hui et al., 2020). Mansoor et al. (2021) argued that organizational innovation and competitiveness hinge on the presence of an engaged and innovative workforce (Sahni, 2021).

According to Bakker and Albrecht (2018), highly engaged employees make significant contributions to productivity and maintain high levels of satisfaction, citizenship behavior, and performance. Schaufeli et al. (2002) defined work engagement as an employee's positive, fulfilling, work-related state of mind characterized by dedication, vigor, and absorption. Existing literature lacks consensus on the antecedents and outcomes of employee engagement (Saks and Gruman, 2014; Bailey et al., 2017). In a meta-analysis of 130 studies, Borst et al. (2020) indicated that EE is positively related to two key attitudinal outcomes: commitment and job satisfaction, while it is negatively associated with two behavioral outcomes: turnover intentions and workaholic.

Our research extends the learning of IWBs as a consequence of EE among the workforce in the Indian IT industry. In this research, we aim to address the question of whether EE facilitates both IWB and Work-Life Balance (WLB) among IT sector employees. Additionally, we aim to investigate the potential role of WLB as mediator in the relationship between EE and IWBs. Thus, our research contributes valuable insights into how service companies can stimulate the IWB of their employees to navigate the rapidly evolving business landscape in the post-COVID-19 era. Specifically, our study underscores the importance of EE in promoting WLB and driving employees' IWB, and it suggests that EE and IWB relationship is mediated by WLB.

Theoretical background and hypothesis development

Employee Engagement

There exists a positive association in employee engagement and factors such as happiness, satisfaction, and productivity. However, it is important that the presence of happiness and satisfaction in an employee does not guarantee their level of engagement. The disappearance of these concerns occurs through a telephone conversation initiated by a consultant, who presents an enticing salary increase to an employee,

who subsequently expresses contentment by accepting the offer. Engagement is commonly perceived as a mindset or conduct that encompasses being actively occupied with, deeply immersed in, captivated by, dedicated to, retained within, and firmly attached to our professional endeavours or organisational affiliations. Engaged employees are characterised by their manifestation of satisfaction, pride, and self-motivation in the workplace, as well as their inclination to integrate their personal identities into their professional endeavours (Kahn, 1990). According to Gallup, there exist three distinct categories of employees. (i) Engaged personnel demonstrate a strong sense of passion and establish a deep emotional connection with their organisation. One sort of employees that significantly contribute to organisational progress is those who drive innovation and propel the organisation forward. Another type of employees is those who are not engaged in their work. There are three distinct categories of employees based on their level of engagement at work: (i) The first category comprises those who exhibit a passive disengagement, as they go through their work day without investing much energy or enthusiasm into their tasks; (ii) The second category includes those who are actively disengaged, meaning they are not content with their work and express their dissatisfaction through their actions; and (iii) The third category consists of individuals who are actively disengaged, although they do not experience misery at work, but rather channel their discontent via their behaviour. On a daily basis, these employees undercut the achievements of their colleagues who are actively involved in their work. According to Kahn (1990), it is said that employees are more likely to exhibit engagement when they perceive their role as meaningful and experience a sense of security in fulfilling their duties.

Work-Life Balance (WLB)

Transformation in social organisation, characterised by women's equitable participation in the economic advancement of their families and communities, has resulted in heightened mobility for both couples. The organisational culture and policy extend beyond individual employees to include the families of those who are employed (Kanter, 1977). It is imperative for organisations to recognise that their focus should not solely be on the quantity of employee output, but also on the quality of said output. The primary focus should be on assessing the level of employee satisfaction during the task execution. If an employee at their place of work is preoccupied with concerns for their unwell spouse or child, elderly parents, creche arrangements or their child's open house event at school, it raises questions about their level of engagement as an employee. Likewise, the inverse scenario may also occur, wherein an individual contemplates professional matters while in the confines of their home environment. Instances such as the one described can potentially give rise to intrapersonal conflict, since the employee may encounter challenges in determining the specific function he is expected to fulfil. The work-life balance refers to the principle by which employees are able to effectively integrate their personal lives and community engagement with their own individual interests and broader societal concerns (Heery & Noon, 2008).

Innovative Work Behavior

Scholars have shown a growing interest in comprehending the antecedents and motivational elements of Interactive Whiteboards (IWB) in order to gain a deeper understanding of individual-level innovativeness, as it is considered crucial for organisational success (Wu et al., 2014). Grossan and Apaydin (2010) have categorised the elements that impact interactive whiteboards (IWBs) into two main categories: organisational (or environmental) factors and individual aspects. The present study utilises work-life balance (WLB) and perceived organisational support (POS) as organisational factors, and employee engagement (EE) as an individual component, in order to examine the relationship with innovative work behaviours (IWBs) among millennials working in the IT industry. For the significant impact of employees in demonstrating innovative work behaviour (IWB) by surpassing established organisational routines, discovering novel approaches to job duties, and using contemporary technologies argued (De and Den, 2010). According to Afsar et al. (2018), employees who are responsible for the maintenance of interactive whiteboards (IWBs) possess the ability to effectively and rapidly analyse and comprehend developing work conditions, and then offer innovative suggestions to enhance the quality of products and services. There is a scarcity of comprehensive and cohesive research on the use of interactive whiteboards (IWB) among millennials in the Chinese environment. Hui et al. (2020) posited that the inclination of Chinese millennials

towards innovative work behaviour (IWB) is influenced positively by their sense of organisational identification, with work engagement serving as a constructive mediating factor. Tian et al. (2021) discovered a positive correlation in employee creativity and prosocial motivation. According to Zhu et al. (2018), individuals belonging to the millennial generation possess the capacity to embrace novel concepts and demonstrate increased dedication towards fostering creativity and acquiring additional knowledge and skills in the face of adversity. Therefore, we suggest that creative individuals from the millennial generation possess the necessary self-assurance and skills to provide inventive resolutions to nascent challenges in the workplace. Millennials, a term coined to describe individuals born between 1980 and 1994 (Levenson, 2010), are closely linked to the era of the millennium and the advancements in digital technology. According to Kong et al. (2016), millennials exhibit elevated levels of self-confidence and prioritise job autonomy within a flexible working environment as a means to efficiently complete their jobs.

Employee Engagement and Innovative Work Behavior

The research in the field of EE has yielded a range of positive outcomes, including job satisfaction, organisational citizenship behaviour, organisational commitment, knowledge sharing (Bailey et al., 2017) employee performance (Khusanova et al., 2021). According to the study conducted by Mansoor et al. (2020), it was posited that environmental engagement (EE) has a direct influence on innovative work behaviours (IWBs), as well as a noteworthy mediation effect on the association between inclusive leadership and IWBs within the context of IT professionals in Singapore. Previous studies have demonstrated that employee engagement (EE) has a notable and beneficial impact on employees' innovative work behaviour (IWB) (Arifin et al., 2021). The study conducted by Inam et al. (2021) establishes a clear correlation between employee engagement (EE) and the level of creativity exhibited by marketing staff in Pakistan. According to Svensson et al. (2021), there is a positive correlation between environmental education (EE) and individuals' intention to engage in pro-environmental behaviours (IWB).

Environmental education (EE) is considered a crucial precursor to the development and implementation of inquiry-based learning (IWB) methodologies, as highlighted by Miller and Miller (2020). It seems like the studies you've mentioned delve into the correlations between employee engagement and various aspects of work behavior, particularly innovative work behavior (IWB) and task performance. Al-Ajlouni (2021) found a positive correlation between employee job engagement and the likelihood of displaying innovative work behavior. Similarly, Gameda and Lee (2020) demonstrated a favorable relationship between work engagement and both task performance and innovative work behavior. Kahn's (1990) definition of employee engagement as the holistic commitment of employees to their job responsibilities, encompassing physical, cognitive, and emotional attention, forms a foundational aspect of this discourse. The terminology used to refer to this engagement construct varies among scholars, including work engagement, employee engagement, role engagement, and job engagement. Schaufeli and Bakker (2010) differentiate between "work engagement" and "employee engagement." While employee engagement explores the connection between an individual, their work, and the organization, work engagement specifically assesses the relationship between an employee and their work alone.

Hypothesis 1: Employee engagement is positively related with innovative work behaviour

Employee Engagement and Work-Life Balance

Scholars have posited that the implementation of EE holds promise in promoting employees' work-life balance. For example, a study conducted by Halbesleben et al. (2009) revealed that employees who are highly engaged tend to have less interference between their work and family domains. Similarly, Culbertson et al. (2012) shown that employee engagement has a beneficial effect on family life by promoting favourable work-to-family relationships. According to the findings of Karatepe and Demir (2014), individuals who exhibit elevated levels of work engagement demonstrate a greater capacity to effectively harmonise their work-related responsibilities and familial obligations. Previous research conducted by Marais et al. (2014) and Qing and Zhou (2017) have demonstrated that work-family enrichment is strongly influenced by emotional exhaustion (EE).

Chen and Huang (2016) emphasised the close association between employee engagement (EE) and the prediction of employees' innovative work behaviours (IWBs). According to Qing and Zhou (2017), in the

Chinese context, it has been suggested that EE plays a significant role as a precursor to work-family enrichment. Ilies et al. (2017) conducted a study examining the level of engagement among employees in the Chinese banking sector. Their findings revealed that employee engagement (EE) has a good effect on the utilisation of work-family interpersonal connections. This, in turn, contributes to increased family happiness and the attainment of a harmonious work-life balance.

Wood et al. (2020) highlighted a reciprocal relationship between work engagement and work-life balance (WLB) through empirical research. This study aims to expand the existing research, emphasizing work engagement as a precursor to achieving a balanced professional and personal life. We propose that actively engaged employees are more likely to strike a harmonious equilibrium between their work and personal spheres. Building upon Wood et al.'s (2020) work, our study empirically examines how employee engagement (EE) affects both work-life balance (WLB) and in-role work behaviors (IWBs). Additionally, we explore how work-life balance (WLB) might mediate the relationship between emotional exhaustion (EE) and innovative work behaviors (IWBs).

Hypothesis 2: Engagement of employees positively influence the work life balance

Work-Life Balance and Innovative Work Behavior

Given the extensive research on work-life balance (WLB) and its positive implications for employees, including improved job performance, psychological well-being, and reduced turnover intentions, it's evident that maintaining WLB is crucial. Pieterse et al. (2010) emphasize the importance of employees having an internally focused mindset and active involvement in work activities like interactive whiteboard (IWB) sessions. Highly engaged employees, as highlighted by Aryee et al. (2012), display traits like enthusiasm, sustained focus, and increased energy, enabling them to engage in innovative behaviors (Eva et al., 2019), ultimately contributing to their professional success. Clarke et al. (2004) define work-life balance (WLB) as the subjective satisfaction individuals feel in managing their personal and professional responsibilities. Kim and Yun's (2019) study in the Chinese hotel industry found a positive correlation between employees' work-life balance (WLB) and their individual work benefits (IWBs).

Based on this existing research, we propose a hypothesis suggesting a positive relationship between employees who maintain work-life balance (WLB) and their likelihood of displaying innovative work behaviors (IWBs). To reinforce this hypothesis, we predict that.

Hypothesis 3: Employee work-life balance has a positive impact on IWBs.

Mediating Effect of Work-Life Balance

Scholars and professionals emphasise the significant impact of work-life balance (WLB) in organisational aspects for enhancing organisational performance (Stankevičiene et al., 2021). According to the study conducted by Haar (2013), there is evidence to suggest that the relationship between family conflict and enrichment, and the subsequent effects on employees' success and wellbeing outcomes, can be explained by the mediating role of work-life balance (WLB). According to Au and Ahmed (2014), there is a positive correlation between work-life balance (WLB) and various aspects of organisational effectiveness, including employees' attitudes, behaviours, and overall welfare. According to Lawson et al. (2013), employees who experience an imbalance between their work and personal lives, often owing to family issues or an overwhelming workload, tend to experience high levels of stress in the workplace. This, in turn, leads to the development of negative work attitudes and ultimately contributes to burnout. According to the research conducted by Nabawanuka and Ekmekcioglu (2021), it was posited that work-life balance (WLB) plays a crucial role in influencing the overall wellbeing of millennials. Furthermore, the study suggests that WLB acts as a mediator in the association between perceived supervisor support and employee wellbeing. According to Rashmi and Kataria (2021), there exists a positive relationship between work-life balance (WLB) and job satisfaction among nursing professionals. Additionally, WLB was found to partially mediate the relationship between two job resources, namely job autonomy and supervisor support, and job satisfaction.

The study establishes a mutual relationship between employee engagement (EE) and work-life balance (WLB) due to the substantial demands posed by work and family responsibilities, consuming considerable energy, time, and emotional resources (Halbesleben, 2010; Timms et al., 2015). Organizations emphasizing

work-life balance empower employees to efficiently manage their performance, effectively allocating their working hours. Existing literature lacks exploration into how work-life balance (WLB) might influence the link between emotional exhaustion (EE) and the intention to withdraw from an organization (IWB). However, based on this research, it's suggested that work-life balance (WLB) can act as a mediator in the relationship between employee engagement (EE) and innovative work behavior (IWB). Hence, this leads to the subsequent research hypothesis.

Hypothesis 4: WLB has a mediating effect on the relationship between EE and IWB.

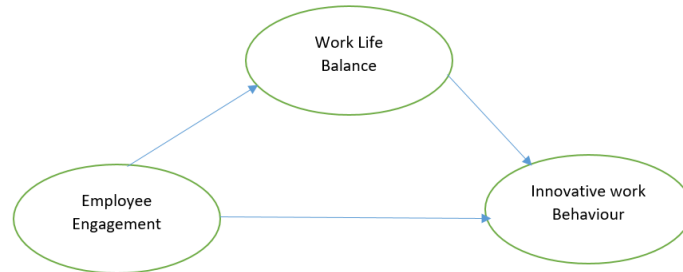


Figure:1 Hypothesized Model

Research method

Methods

Our study's targeted populations were employees working in IT, companies located in four main cities. Such industries are frequently employed as the research context for service industry research (Zhou et al., 2018; Khan et al., 2021b; Sahni, 2021; Tian et al., 2021). In addition, employees working in such service industries need to possess the skills and capabilities to exhibit IWB through interaction with customers.

Recognizing their proactive inclinations, millennials exhibit a greater degree of innovative behavior in comparison to the previous generation, as noted in the work of Giebels et al. (2016). This trend is particularly pronounced in knowledge-based economies, as highlighted by Hui et al. (2020). Millennials tend to be open to novel ideas, make substantial efforts to acquire new skills and knowledge, and are often willing to take risks in pursuit of short-term gains, as observed by Zhu et al. (2018). In the context of the Indian workforce, millennials constitute a significant majority and have the potential to play a pivotal role in fostering organizational innovation and enhancing competitiveness, as suggested by Zhao (2018), Asif et al. (2019), and Hui et al. (2020). Notably, the Indian IT workforce places a higher value on factors like remuneration and flexibility when compared to generations X and Y, as indicated by Lin et al. (2015).

Therefore, it is incumbent upon leaders to invest in the training and empowerment of their millennial workforce to encourage the manifestation of Innovative Work Behaviors (IWBs) and maintain a competitive edge, particularly within the IT industry. To select the study sample, we employed a random sampling approach focusing on major and large-sized branches of target service companies. Following the data collection procedure outlined by Tian et al. (2021), we initiated contact with branch managers through the respective organizations' service centers. Subsequently, we explained the purpose of our study and requested either a face-to-face meeting or personal contact details of the branch managers. After gaining their consent, we engaged in telephonic or face-to-face interviews to facilitate the data collection process.

After extensive communication with the managers, we successfully secured the cooperation of 39 out of a total of 46 branch managers for data collection. We established three specific sampling criteria and provided detailed explanations to the branch managers: employees should have been born between 1981 and 2000, hold senior positions, and possess the capabilities to exhibit innovative behaviors in the execution of their job tasks. The distribution and collection of questionnaires took place between January 2023 and August 2023.

To encourage respondents to complete the questionnaires, we employed printed and self-administered survey forms. We also enlisted the assistance of two local individuals to ensure a seamless and efficient data collection process. These individuals were briefed on the study's purpose, identified the target companies and branches, and received training on questionnaire administration and collection. Symbolic incentives

were provided to managers to motivate their employees to complete the survey questionnaires promptly. Respondents were allotted a two-week period to fill out the questionnaires, and we utilized email, WhatsApp, or in-person visits to communicate with and follow up on the respondents.

In total, we distributed 578 questionnaires, with 327 of them being deemed complete and valid for analysis, representing a response rate of 53%. It's worth noting that this moderate response rate is in line with the specific sampling criteria required for the study. Nevertheless, it's important to recognize that previous literature has acknowledged and accepted response rates as low as 41% (Sahni, 2021), 34% (Culbertson et al., 2012), and 31% (Gemed and Lee, 2020). The demographic profile of the respondents is shared in the table-1

Table 1 Demographic profile of respondents (Sample size 327)

| Category | Group | Frequency | Percentage |
|--------------------|---------------------------|-----------|------------|
| Gender | Male | 195 | 60 |
| | Female | 132 | 40 |
| Age of Respondents | 23-28 | 16 | 4 |
| | 29-36 | 287 | 88 |
| | >36 | 24 | 8 |
| Year of Experience | Less than 5 years | 244 | 75 |
| | 5-10 years | 65 | 20 |
| | More than 10 years | 18 | 5 |
| Education | PG | 229 | 70 |
| | PG+ Certification | 70 | 22 |
| | Pursuing Higher Education | 28 | 8 |

Source: Research Output

Measures

The present investigation employed measurement scales that have been well recognised and validated in previous research. The study employed a five-point Likert scale, with response options ranging from 1 (strongly disagree) to 5 (strongly agree), to evaluate the accepted measures. Cronbach alpha values were computed to determine the reliability of the constructs. The variable of interest, employee engagement, was assessed using a set of nine items created by Schaufeli et al. (2006), who reported a reliability coefficient of $\alpha = 0.885$. IWB, as a multifaceted concept, encompasses the actions of employees that contribute to the improvement of innovative processes (De Jong and Hartog, 2007; Saeed et al., 2019). The measurement of innovative work behaviour was conducted via the scale developed by Ma Prieto and Pérez-Santana (2014). The measuring scale in question consists of four items, as reported by Mishra et al. (2019), who found strong reliability values of $\alpha = 0.810$ and $\alpha = 0.93$. The variable of work-life balance was assessed through the utilisation of four items that were produced by Hayman (2005). The utilisation of control variables was implemented in order to obtain a comprehensive elucidation of research outcomes, encompassing factors such as the gender, age, educational attainment, and length of service within the organisation of the employees.

Results

Table 1 summarizes the descriptive information of the research participants. It is evident from the above table that the gender of the respondents has been categorized into male and female, which comprises of 60% and 40%, respectively. The age of the respondents has been characterized into three categories. The categories are 17-22, 23-28, and more than 28 years of age. These age categories are 4, 88, and 8 percent, respectively. Respondents are categorized into three categories of job experience: less than 5 years, 5-10 years, more than 10 years. The percentage of these categories are 75, 20 and 5 respectively. The Educational details of the respondents are categorized into three categories P.G., P.G. + Certification, and pursuing higher education. The percentage of these categories are 70, 22, and 8%, respectively.

Measures

The robustness of the measures can be verified from the values of the factor loading, Cronbach's alpha (C.A.), and rho-A. Further, the validity and reliability of the measurement model can be confirmed through composite reliability and convergent and Discriminant validity of the constructs. Table no. 1 ensures the adequacy of the factor loading, which is above 0.7 for each statement (Fornell & Larcker, 1981; Hair et al., 2014).

Table 2: Factor Loading

| Statements | Innovative work behaviour | Employee engagement | Work life Balance |
|------------|---------------------------|---------------------|-------------------|
| IWB1 | 0.868 | | |
| IWB 2 | 0.701 | | |
| IWB 3 | 0.855 | | |
| IWB 4 | 0.840 | | |
| EE 1 | | 0.736 | |
| EE 2 | | 0.786 | |
| EE 3 | | 0.711 | |
| EE 4 | | 0.845 | |
| EE 5 | | 0.843 | |
| EE 6 | | 0.699 | |
| EE 7 | | 0.771 | |
| EE 8 | | 0.777 | |
| EE 9 | | 0.762 | |
| WLB1 | | | 0.748 |
| WLB 2 | | | 0.813 |
| WLB 3 | | | 0.806 |
| WLB 4 | | | 0.857 |

Internal Consistency Reliability

Table 3 confirms the presence of adequate internal consistency for each construct through the values of Cronbach's alpha (C.A.) and Rho-A. Here, all the values are above 0.70, which is sufficient to establish internal consistency. Further, the construct's reliability is found to be satisfactory as all the values of composite reliability (C.R.) for each construct are above 0.60 (Hair, Hult, Ringle, & Sarstedt, 2014). In addition to this, Fornell & Larcker, 1981 suggested the use of rho-A as additional criteria to confirm the reliability. The results of the rho-A test are satisfactory as all the values are above 0.6. All the values mentioned above lead to the confirmation of the internal consistency and reliability of the constructs.

Convergent and Discriminant validity

This can be found in table 3 that all the AVE values are more than 0.5, which is a necessary condition to establish convergent validity. Moreover, the value of AVE for each construct is more than the corresponding values of MSV (Gaskin & Lim, 2016). In addition to this, it can be observed that the square root of the AVE is higher than the corresponding correlation value for other relationships. Therefore, discriminant validity is also established.

| | CR | AVE | MSV | MaxR(H) | EE | WLB | IWB |
|-----|-------|-------|-------|---------|--------------|--------------|-----|
| EE | 0.850 | 0.534 | 0.090 | 0.859 | 0.731 | | |
| WLB | 0.891 | 0.673 | 0.075 | 0.896 | 0.273 | 0.820 | |

| | | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|--------------|
| IWB | 0.927 | 0.681 | 0.084 | 0.932 | 0.290 | 0.322 | 0.807 |
|-----|-------|-------|-------|-------|-------|-------|--------------|

Model Fitness Table:

| Measures | Values |
|----------|--------|
| CMIN/df | 2.917 |
| NFI | 0.918 |
| CFI | 0.893 |
| TLI | 0.862 |
| RFI | 0.930 |
| RMSEA | 0.064 |

From the table we can see that the value of SMIN/Df is within the range of less than three which is acceptable and good also in case of social science model.

Structural equation Model results:

| | EE | WLB | IWB |
|-----|--------|--------|-----|
| EE | 1 | | |
| WLB | .381** | 1 | |
| IWB | .381** | .313** | 1 |

Table 6. Regression Analysis of variables

| variable | B | se | t | Sig | Hypothesis |
|--------------------------------|-------|-------|-------|------|------------|
| EE→WLB (R ² =0.292) | 0.612 | 0.079 | 4.564 | .000 | Supported |
| EE→IWB (R ² =0.452) | 0.523 | 0.236 | 11.16 | .000 | Supported |
| WLB→IWB(R ² =0.303) | 0.497 | 0.142 | 6.084 | .000 | Supported |

Mediation Test

| Construct/variables | Direct | Indirect | BootLLCI | BootULCI | Mediation |
|---------------------|--------|----------|----------|----------|----------------|
| EE↔WLB↔IBV | 0.1120 | 0.1662 | 0.0418 | 0.1732 | Full Mediation |

Discussion:

The research results have validated our initial premise that there exists a positive correlation between employee engagement (EE) and Innovative Work Behaviours (IWB) within the IT industry. The findings presented in this study are consistent with the extant scholarly literature, as evidenced by the research conducted by Mansoor et al. (2020), Arifin et al. (2021), Inam et al. (2021), and Svensson et al. (2021). Furthermore, Al-Ajlouni (2021) and Gameda and Lee (2020) arrived at comparable findings, underscoring the significance of employee engagement in facilitating employees' innovative work behaviours (IWBs).

Additionally, our research has provided empirical evidence to support the existence of a causal connection between employee engagement (EE) and work-life balance (WLB). Furthermore, our findings indicate that EE plays a crucial role as a primary determinant of WLB. This discovery aligns with the existing body of literature, as demonstrated by the research conducted by Halbesleben et al. (2009) and Culbertson et al. (2012), which indicated that employees who are highly engaged are more capable of maintaining a satisfactory work-life balance. Karatepe and Demir (2014), Marais et al. (2014), and Qing and Zhou (2017) expressed comparable viewpoints, contending that individuals who are actively involved in their work had the ability to effectively balance their professional and familial obligations. Nevertheless, it is important to

acknowledge that several research have suggested that EE may potentially result in work-family conflict. Chen and Huang (2016) proposed that there exists a positive correlation between high emotional exhaustion (EE) and both burnout and increased work-family conflict. The study conducted by Bakker et al. (2014) demonstrated that engagement in work can have a beneficial impact on the facilitation of work-family balance, leading to increased levels of satisfaction among both employees and their families.

The empirical findings of our study also support the notion that work-life balance (WLB) has a significant and direct influence on innovative work behaviours (IWBs), which aligns with the findings of previous research undertaken by Pieterse et al. (2010), Aryee et al. (2012), Eva et al. (2019), and Kim and Yun (2019). Furthermore, our investigation revealed that work-life balance (WLB) serves as a partial mediator between employee engagement (EE) and innovative work behaviour (IWB). This suggests that there is a positive relationship between the level of employee engagement and the achievement of an acceptable work-life balance, leading to an increase in their innovative work behaviours. The utilisation of work-life balance (WLB) as a mediating variable has been a common practise in the existing academic literature. This is evident in studies conducted by Lawson et al. (2013), Nabawanuka and Ekmekcioglu (2021), and Rashmi and Kataria (2021).

To the utmost extent of our understanding, this research endeavour serves as a first attempt to empirically validate the mediating function of work-life balance (WLB) in the association between emotional exhaustion (EE) and innovative work behaviour (IWB). Based on our research findings, it can be concluded that work-life balance (WLB) effectively serves as a mediator in the relationship between emotional exhaustion (EE) and innovative work behaviours (IWBs). This suggests that work-life balance (WLB) has a direct effect on employees' innovative work behaviours (IWBs) and also has an indirect influence on IWBs through its impact on their degree of job engagement.

Managerial Implications

Our research findings highlight the crucial role of Employee Engagement (EE) in fostering Innovative Work Behaviors (IWB). This suggests that engaged employees are more likely to inspire IWBs. Consequently, employers should promote EE by implementing relevant policies and programs aimed at stimulating IWBs. It's essential for leaders to recognize the significant impact of EE on driving their employees' IWBs. As a result, identifying and implementing effective EE practices is crucial for encouraging employees to demonstrate IWBs. Our research findings also suggest that leaders in service industries should prioritize the effective engagement of millennial employees. Servant leadership, as discussed by Khan et al. (2021a), has been found to have a positive influence on employees' sense of meaning in their work and work engagement. This, in turn, mediates the relationship between servant leadership and work engagement among employees in the service sector in Pakistan.

In light of our research, it is imperative for leaders to focus on EE practices to enhance employees' Work-Life Balance (WLB). Creating a conducive work environment that allows employees to strike a balance between work and personal life is of paramount importance. This can be achieved by offering flexible work hours and supporting employees in managing their family and work responsibilities. Furthermore, Anderson et al. (2014) have called for additional research to integrate the findings from innovation research, which can significantly contribute to the field of innovativeness. Given the observed reciprocal relationship between work engagement and WLB factors, as highlighted by Babic et al. (2017) and Timms et al. (2015), further longitudinal studies are necessary to gain a more comprehensive understanding of their interconnections.

Limitations

Participants in this study who fell under the age bracket of millennial employees were asked to provide their birth years between 1981 and 2000. Given that the current study concentrated mostly on millennials working in the IT industry within the context of India, it is possible that the findings cannot be generalised to a broader population. For the most part, our research relied solely on data acquired from the points of view of employees. As a result, subsequent studies might incorporate the viewpoints of both employees and managers in order to investigate the effect that EE has on IWB. In addition, in order to generalise the results of the research study, additional research may make use of a bigger sample size conducted in a

variety of settings. Because of India's cultural values and varied perspectives, such as large power distance and collectivism (Chen et al., 2020), it may be difficult to generalise the findings of our empirical research. Consequently, subsequent research may investigate the applicability of our model and attempt to broaden its reach by using it in a variety of scenarios with larger samples and making use of qualitative investigations. The empirical findings of our study contribute to the expanding body of research on EE and IWBs; this is the case despite the limitations of the research that have been highlighted above.

Reference

- Afsar, B., Badir, Y., and Saeed, B. (2014). Transformational leadership and innovative work behavior. *Indus. Manage. Data Syst.* 114, 1270–1300. doi: 10.1108/IMDS-05-2014-0152
- Afsar, B., Cheema, S., and Bin Saeed, B. (2018). Do nurses display innovative work behavior when their values match with hospitals' values? *Eur. J. Innovat. Management* 21, 157–171. doi: 10.1108/EJIM-01-2017-0007
- AlMehrzzi, N., and Singh, S. K. (2016). Competing through employee engagement: a proposed framework. *Int. J. Product. Perform. Manage.* 65, 831–843. doi: 10.1108/IJPPM-02-2016-0037
- Al-Ajlouni, M. I. (2021). Can high-performance work systems (HPWS) promote organisational innovation? Employee perspective-taking, engagement and creativity in a moderated mediation model. *Employee Relat.* 43, 373–397. doi: 10.1108/ER-09-2019-0369
- Anderson, N., Potočnik, K., and Zhou, J. (2014). Innovation and creativity in organizations: a state-of-the-science review, prospective commentary, and guiding framework. *J. Manage.* 40, 1297–1333. doi: 10.1177/0149206314527128
- Arifin, N., Tjahjono, H. K., Hartono, A., and Muafi, M. (2021). The antecedent of employee engagement and its effect on innovative behavior: a religiosity based social exchange theory (SET) perspective. *J. Asian Fin.* 8, 313–0322. doi: 10.13106/jafeb.2021.vol8.no7.0313
- Aryee, S., Walumbwa, F. O., Zhou, Q., and Hartnell, C. A. (2012). Transformational leadership, innovative behavior, and task performance: test of mediation and moderation processes. *Hum. Perform.* 25, 1–25. doi: 10.1080/08959285.2011.631648
- Asif, M., Qing, M., Hwang, J., and Shi, H. (2019). Ethical leadership, affective commitment, work engagement, and creativity: testing a multiple mediation approach. *Sustainability* 11, 4489. doi: 10.3390/su111164489
- Au, W. C., and Ahmed, P. K. (2014). Sustainable people management through work-life balance: a study of the Malaysian Chinese context. *Asia Pac. J. Bus. Admin.* 6, 262–280. doi: 10.1108/APJBA-02-2014-0024
- Babic, A., Stinghamer, F., Bertrand, F., and Hansez, I. (2017). Work-home interface and well-being: a cross-lagged analysis. *Pers. Rev.* 16, 46–55. doi: 10.1027/1866-5888/a000172
- Bailey, C., Madden, A., Alfes, K., and Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: a narrative synthesis. *Int. J. Manage. Rev.* 19, 31–53. doi: 10.1111/ijmr.12077
- Bakker, A. B., and Albrecht, S. (2018). Work engagement: current trends. *Career Dev. Int.* 23, 4–11. doi: 10.1108/CDI-11-2017-0207
- Bakker, A. B., Shimazu, A., Demerouti, E., Shimada, K., and Kawakami, N. (2014). Work engagement versus workaholism: a test of the spillover-crossover model. *J. Manage. Psychol.* 29, 63–80. doi: 10.1108/JMP-05-2013-0148
- Bin Saeed, B., Afsar, B., Shahjehan, A., and Imad Shah, S. (2019). Does transformational leadership foster innovative work behavior? The roles of psychological empowerment, intrinsic motivation, and creative process engagement. *Econ. Res.* 32, 254–281. doi: 10.1080/1331677X.2018.1556108
- Bordin, C., Bartram, T., and Casimir, G. (2006). The antecedents and consequences of psychological empowerment among Singaporean IT employees. *Manage. Res. News* 30, 34–46. doi: 10.1108/01409170710724287
- Borst, R. T., Krueger, P. M., Lako, C. J., and de Vries, M. S. (2020). The attitudinal, behavioral, and performance outcomes of work engagement: a comparative meta-analysis across the public, semipublic, and private sector. *Rev. Public Pers. Admin.* 40, 613–640. doi: 10.1177/0734371X19840399
- Campo, A. M. D. V., Avolio, B., and Carlier, S. I. (2021). The relationship between telework, job performance, work-life balance and family supportive supervisor behaviours in the context of COVID-19. *Glob. Bus. Rev.* 097215092110499. doi: 10.1177/09721509211049918
- Chen, L., Wadei, K. A., Bai, S., and Liu, J. (2020). Participative leadership and employee creativity: a sequential mediation model of psychological safety and creative process engagement. *Leadersh. Organ. Dev. J.* 41, 741–759. doi: 10.1108/LODJ-07-2019-0319
- Chen, Y. S., and Huang, S. Y. (2016). A conservation of resources views of personal engagement in the development of innovative behavior and work-family conflict. *J. Organ. Change Manage.* 29, 1030–1040. doi: 10.1108/JOCM-11-2015-0213
- Chin, W. W. (2010). "How to write up and report PLS analyses," in *Handbook of Partial Least Squares* (Austin, TX: Springer), 655–690. doi: 10.1007/978-3-540-32827-8

- Choi, S. B., Kim, K., Ullah, S. M. E., and Kang, S. W. (2016). How transformational leadership facilitates innovative behavior of Korean workers: examining mediating and moderating processes. *Pers. Rev.* 45, 459–479. doi: 10.1108/PR-03-2014-0058
- Clarke, M. C., Koch, L. C., and Hill, E. J. (2004). The work-family interface: differentiating balance and fit. *Family Cons. Sci. Res. J.* 33, 121–140. doi: 10.1177/1077727X04269610
- Cohen, J. (1998). *Statistical Power Analysis for the Behavioral Sciences*, 2nd Edn. New York, NY: Routledge. doi: 10.4324/9780203771587
- Culbertson, S. S., Mills, M. J., and Fullagar, C. J. (2012). Work engagement and work-family facilitation : making homes happier through positive affective spillover. *Human Relat.* 65, 1155–1177. doi: 10.1177/0018726712440295
- De Jong, P. J., and Den Hartog, D. (2010). Measuring innovative work behaviour. *Creat. Innovat. Manage.* 19, 23–36. doi: 10.1111/j.1467-8691.2010.00547.x
- De Jong, P. J., and Hartog, D. D. (2007). How leaders influence employees' innovative behaviour. *Eur. J. Innovat. Manage.* 10, 41–64. doi: 10.1108/14601060710720546
- Dimock, M. (2019). *Defining Generations: Where Millennials End and Generation Z Begins*. Pew Research Center. Available online at: <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>
- Dong, Y., Bartol, K. M., Zhang, Z., and Li, C. (2016). Enhancing employee creativity via individual skill development and team knowledge sharing : influences of dual-focused transformational leadership. *J. Organ. Behav.* 38, 439–458. doi: 10.1002/job.2134
- Eva, N., Meacham, H., Newman, A., and Schwarz, G. (2019). Is coworker feedback more important than supervisor feedback for increasing innovative behavior? *Hum. Resource Manage.* 58, 383–396. doi: 10.1002/hrm.21960
- Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement. *J. Market. Res.* 18, 39–50.
- García-juan, B., and Escrig-tena, A. B. (2018). The empowerment –organizational performance link in local governments. *Pers. Rev.* 48, 118–140. doi: 10.1108/PR-09-2017-0273
- Gemeda, H. K., and Lee, J. (2020). Leadership styles, work engagement and outcomes among information and communications technology professionals: a cross-national study. *Heliyon* 6, e03699. doi: 10.1016/j.heliyon.2020.e03699
- Giebels, E., Reuver, R. S. M., De Rispens, S., and Ufkes, E. G. (2016). The Critical roles of task conflict and job autonomy in the relationship between proactive personalities and innovative employee behavior. *J. Appl. Behav. Sci.* 52, 320–341. doi: 10.1177/0021886316648774
- Grošelj, M., Cerne, M., Penger, S., and Grah, B. (2020). Authentic and transformational leadership and innovative work behaviour: the moderating role of psychological empowerment. *Eur. J. Innovat. Manage.* 24, 677–706. doi: 10.1108/EJIM-10-2019-0294
- Grossan, M. M., and Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: a systematic review of the literature. *J. Manage. Stud.* 47, 1154–1191. doi: 10.1111/j.1467-6486.2009.00880.x
- Haar, J. M. (2013). The International Journal of Human Testing a new measure of work – life balance : a study of parent and non- parent employees from New Zealand. *Int. J. Hum. Resource Manage.* 24, 3305–3324. doi: 10.1080/09585192.2013.775175
- Haider, S., Jabeen, S., and Ahmad, J. (2018). Moderated mediation between work– life balance and employee job performance: the role of psychological wellbeing and satisfaction with co-workers. *Revista de Psicología Del Trabajo y de Las Organizaciones* 34, 29–37. doi: 10.5093/jwop2018a4
- Hair, J., Ringle, C. M., and Sarsted, M. (2011). PLS-SEM: indeed, a silver bullet. *J. Market. Theory Pract.* 19, 139–152. doi: 10.2753/MTP1069-6679190202
- Hair, J. F., Ringle, C., Sarstedt, M., and Gudergan, S. (2017). *Advanced Issues in Partial Least Squares Structural Equation Modeling*, 1st Edn. Sage Publications. Halbesleben, J. R. (2010). “A meta-analysis of work engagement: relationships with burnout, demands, resources, and consequences,” in *Work Engagement: A Handbook of Essential Theory and Research*, eds A. B. Bakker and M. P. Leiter (Hove: Psychology Press), 102–117.
- Halbesleben, J. R. B., Harvey, J., and Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *J. Appl. Psychol.* 94, 1452–1465. doi: 10.1037/a0017595
- Hayman, J. (2005). Psychometric assessment of an instrument designed to measure work life balance. *Res. Pract. Hum. Resource Manage.* 13, 85–91.
- Hensler, J., Ringle, C. M., and Sinkovics, R. (2009). The use of partial least squares path modeling in international marketing. *Adv. Int. Market.* 20, 277–319. doi: 10.1108/S1474-7979(2009)00000 20014
- Hu, L. T., and Bentler, P.M. (1999). 103. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct. Equat. Model.* 6, 1–55.

- Huhtala, H., and Parzefall, M. (2007). A review of employee well-being and innovativeness : an opportunity for a mutual benefit. *Creat. Innovat. Manage.* 16, 299–306. doi: 10.1111/j.1467-8691.2007.00442.x
- Hui, L., Qun, W., Nazir, S., Mengyu, Z., Asadullah, M. A., and Khadim, S. (2020). Organizational identification perceptions and millennials' creativity: testing the mediating role of work engagement and the moderating role of work values. *Eur. J. Innovat. Manage.* 24, 1653–1678. doi: 10.1108/EJIM-04-2020-0165
- Ilies, R., Liu, X., Liu, Y., and Zheng, X. (2017). Why do employees have better family lives when they are highly engaged at work? *J. Appl. Psychol.* 102, 956–970. doi: 10.1037/apl0000211
- Inam, A., Ho, J. A., Zafar, H., Khan, U., Sheikh, A. A., and Najam, U. (2021). Fostering creativity and work engagement through perceived organizational support: the interactive role of stressors. *SAGE Open* 11, 215824402110469. doi: 10.1177/21582440211046937
- Jin, S., Li, Y., and Xiao, S. (2022). What drives employees' innovative behaviors in emerging-market multinationals? An integrated approach. *Front. Psychol.* 12, 803681. doi: 10.3389/fpsyg.2021.803681
- Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. *Acad. Manage.* 33, 692–724. doi: 10.2307/256287
- Karatepe, O. M., and Demir, E. (2014). Linking core self-evaluations and work engagement to work-family facilitation: a study in the hotel industry. *Int. J. Contemp. Hosp. Manage.* 26, 307–323. doi: 10.1108/IJCHM-01-2013-0008
- Kerdpitak, C., and Jermsittiparsert, K. (2020). The effects of workplace stress, work-life balance on turnover intention : an empirical evidence from pharmaceutical industry in Thailand. *SRP* 11, 586–594. doi: 10.5530/srp.2020.2.86
- Khan, M., Mubarik, M., Ahmed, S., Islam, T., Khan, E., Rehman, A., et al. (2021a). My meaning is my engagement: exploring the mediating role of meaning between servant leadership and work engagement. *Leadersh. Organ. Dev. J.* 42, 926–941. doi: 10.1108/LODJ-08-2020-0320
- Khan, M., Mubarik, M., Islam, T., Rehman, A., Ahmed, S., Khan, E., et al. (2021b). How servant leadership triggers innovative work behavior: exploring the sequential mediating role of psychological empowerment and job crafting.
- Krishnan, V. R. (2012). Transformational leadership and personal outcomes: empowerment as mediator. *Leadership Organ. Develop. J.* 33, 550–563. doi: 10.1108/01437731211253019
- Lawson, K. M., Davis, K. D., Crouter, A. C., and Neill, J. W. O. (2013). Understanding work-family spillover in hotel managers. *Int. J. Hosp. Manage.* 33, 273–281. doi: 10.1016/j.ijhm.2012.09.003
- Levenson, A. R. (2010). Millennials and the world of work : an economist' s perspective. *J. Bus. Psychol.* 25, 257–264. doi: 10.1007/s10869-010-9170-9
- Li, H., Sajjad, N., Wang, Q., Ali, A. M., Khaqan, Z., and Amina, S. (2019). Influence of transformational leadership on employees' innovative work behavior in sustainable organizations: test of mediation and moderation processes. *Sustainability* 11, 1–21. doi: 10.3390/su11061594
- Lin, Y., Li, Y., and Hou, X. (2015). Utilitarian orientation, long-term orientation, and performance: evidence from Chinese millennial-generation employees. *Soc. Behav. Pers.* 43, 1463–1476. doi: 10.2224/sbp.2015.43.9.1463
- Ma Prieto, I., and Pérez-Santana, M. (2014). Managing innovative work behavior : the role of human resource practices. *Pers. Rev.* 43, 184–208. doi: 10.1108/PR-11-2012-0199
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., and Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychol. Methods* 7, 83–104. doi: 10.1037/1082-989X.7.1.83
- Miller, L., and Miller, A. F. (2020). Innovative work behavior through high-quality leadership. *Int. J. Innovat. Sci.* 12, 219–236. doi: 10.1108/IJIS-04-2019-0042
- Mishra, P., Bhatnagar, J., Gupta, R., and Wadsworth, S. M. (2019). How work-family enrichment influence innovative work behavior: role of psychological capital and supervisory support. *J. Manage. Organ.* 25, 58–80. doi: 10.1017/jmo.2017.23
- Nabawanuka, H., and Ekmekcioglu, E. B. (2021). Millennials in the workplace: perceived supervisor support, work-life balance and employee well-being. *Indus. Comm. Train.* 54, 132–144. doi: 10.1108/ICT-05-2021-0041
- Pieterse, A. N., van Knippenberg, D., Schippers, M., and Stam, D. (2010). Transformational and transactional leadership and innovative behavior: the moderating role of psychological empowerment. *J. Organ. Behav.* 31, 609–623. doi: 10.1002/job.650
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88, 879–903. doi: 10.1037/0021-9010.88.5.879
- Qing, G., and Zhou, E. (2017). Bidirectional work-family enrichment mediates the relationship between family-supportive supervisor behaviors and work engagement. *Soc. Behav. Pers.* 45, 299–308. doi: 10.2224/sbp.6023
- Rashmi, K., and Kataria, A. (2021). The mediating role of work-life balance on the relationship between job resources and job satisfaction: perspectives from Indian nursing professionals. *Int. J. Organ. Anal.* doi: 10.1108/IJOA-04-2021-2722. [Epub ahead of print].

- Saeed, B., Afsar, B., Cheema, S., and Javed, F. (2019). Leader-member exchange and innovative work behavior: the role of creative process engagement, core self-evaluation, and domain knowledge. *Eur. J. Innovat. Manage.* 22, 105–124. doi: 10.1108/EJIM-11-2017-0158
- Sahni, J. (2021). Employee engagement among millennial workforce: empirical study on selected antecedents and consequences. *SAGE Open* 11, 215824402110022. doi: 10.1177/21582440211002208
- Schaufeli, W. B., Bakker, A. B., and Salanova, M. (2006). The measurement of work engagement with a short questionnaire: a cross-national study. *Educ. Psychol. Meas.* 66, 701–716. doi: 10.1177/0013164405282471
- Scott, S. G., and Bruce, R. A. (1994). Determinants of innovative behavior: a path model of individual innovation in the workplace. *Acad. Manage. J.* 37, 580–607. doi: 10.2307/256701
- Spiegelaere, S., De Gyes, G., Van Witte, H., De Niesen, W., and Hootegem, G., Van (2014). On the relation of job insecurity, job autonomy, innovative work behaviour and the mediating effect of work engagement. *Creat. Innov. Manage.* 23, 318–330. doi: 10.1111/caim.12079
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: dimensions, measurement, and validation. *Acad. Manage. J.* 38, 1442–1465. doi: 10.2307/256865
- Svensson, P., Jeong, S., Shuck, B., and Otto, M. (2021). Antecedents and outcomes of employee engagement in sport for development. *Sport Manage. Rev.* 24, 673–696. doi: 10.1080/14413523.2021.1880758
- Tan, A. B. C., Van Dun, D. H., and Wilderom, C. P. M. (2021). Innovative work behavior in Singapore evoked by transformational leaders through innovation support and readiness. *Creat. Innovat. Manage.* 30, 697–712. doi: 10.1111/caim.12462
- Tehseen, S., Qureshi, Z. H., Johara, F., and Ramayah, T. (2020). Assessing dimensions of entrepreneurial competencies: a type II (reflective-formative) measurement approach using PLS-SEM. *J. Sustain. Sci. Manage.* 15, 108–145.
- Thomas, K. W., and Velthouse, B. A. (1990). Cognitive elements of empowerment: an “interpretive” model of intrinsic task motivation. *Acad. Manage. Rev.* 15, 666–681. doi: 10.5465/amr.1990.4310926
- Tian, X., Peng, X., and Peng, X. (2021). Influence of prosocial motivation on employee creativity: the moderating role of regulatory focus and the mediating role of knowledge sharing. *Front. Psychol.* 12, 704630. doi: 10.3389/fpsyg.2021.704630
- Timms, C., Brough, P., O’Driscoll, M., Kalliath, T., Siu, O. L., Sit, C., et al. (2015). Positive pathways to engaging workers: work-family enrichment as a predictor of work engagement. *Asia Pac. J. Hum. Resour.* 53, 490–510. doi: 10.1111/1744-7941.12066
- Wood, J., Oh, J., Park, J., and Kim, W. (2020). The relationship between work engagement and work-life balance in organizations: a review of the empirical research. *Hum. Resource Dev. Rev.* 19, 240–262. doi: 10.1177/1534484320917560
- Wu, C. H., Parker, S. K., and de Jong, J. P. J. (2014). Need for cognition as an antecedent of individual innovation behavior. *J. Manage.* 40, 1511–1534. doi: 10.1177/0149206311429862
- Zhao, Y. (2018). Managing Chinese millennial employees and their impact on human resource management transformation: an empirical study. *Asia Pac. Bus. Rev.* 2381, 1–18. doi: 10.1080/13602381.2018.1451132
- Zhou, L., Zhao, S., Tiang, F., Zhan, X., and Chen, S. (2018). Article information: visionary leadership and employee creativity in China. *Emerald Publ. Ltd.* 39, 93–105.
- Zhu, Y. Q., Gardner, D. G., and Chen, H. G. (2018). Relationships between work team climate, individual motivation, and creativity. *J. Manage.* 44, 2094–2115. doi: 10.1177/0149206316638161
- Zuraik, A., and Kelly, L. (2019). The role of CEO transformational leadership and innovation climate in exploration and exploitation. *Eur. J. Innovat. Manage.* 22, 84–104. doi: 10.1108/EJIM-10-2017-0142