

Understanding the mechanism and impact of workplace fun on employee innovative behavior

探討工作場所的有趣性對員工創新行為的影響機制

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Abstract: An engaging workplace must have a pleasant atmosphere to attract and retain the right staff. Fun at work includes engaging, communicative, interactive, and entertaining duties and activities that contribute to an immersive workplace. This study integrates workplace fun, employees' innovative workplace behavior, organizational commitment, and socialization resources with psychological capital to determine the effect of workplace fun on employees' innovative workplace behavior. It applies a convenience sampling technique to collect data with the help of a questionnaire from a sample of 410 respondents who are workers employed in Taiwan. The results of this study present that workplace fun has a significant effect on psychological capital. Psychological capital has significant effects on organizational commitment and innovative workplace behavior, while there is a significant association between organizational commitment and innovative workplace behavior. Regarding the indirect effect of variables, psychological capital and organizational commitment act as mediators between workplace fun and innovative workplace behavior. Finally, this study offers some theoretical and

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practical implications for reference by industries and academics.

Keywords: Workplace fun, innovative workplace behavior, theory of socialization resources, theory of positive organizational behavior, psychological capital.

摘要：一個引人入勝的工作場所必須有令人愉悅的氛圍，才能吸引和留住合適的員工。工作樂趣包括參與性、溝通性、互動性和娛樂性的職責和活動，有助於營造身臨其境的工作場所。本研究將工作場所趣味性、員工的創新工作場所行為、組織承諾和社會化資源與心理資本相結合，以確定工作場所趣味性對員工創新工作場所行為的影響。本研究採用便利抽樣技術，通過問卷調查的方式收集了 410 位員工受訪者的資料。本研究的參與者是在臺灣就業的員工。研究結果表明，職場趣味對心理資本有顯著影響，而心理資本對職場創新行為有顯著影響。此外，組織承諾與職場創新行為之間也存在顯著關聯。在變數的間接影響方面，心理資本和組織承諾在工作場所趣味性和工作場所創新行為之間起到了中介作用。最後，本研究提供了一些理論貢獻和實踐意義，供相關行業和學術界參考。

關鍵詞：工作場所有趣性、工作場所創新行為、社會化資源理論、積極組織行為理論、心理資本

1. Introduction

Diverse firms must attract and retain high-quality employees to acquire a competitive edge. An engaging workplace should have a pleasant atmosphere to attract and retain the right staff (Tsaur *et al.*, 2019). In recent years, businesses and the academic sector have begun to consider workplace fun (WF), as studies have shown that fun at work includes engaging, communicative, interactive, and entertaining duties and activities that contribute to an immersive workplace. A joyful work atmosphere is one of the variables that differentiate exceptional workers from everyone else (Chan, 2010; Tsaur *et al.*, 2019). WF significantly

affects employees and organizations (Owler *et al.*, 2010).

From the viewpoint of business institutions, WF enhances a number of organizational concepts, such as innovation (Bolman and Deal, 2000; Tsaur *et al.*, 2019), imagination (Bolman and Deal, 2000), effectiveness (Tsaur *et al.*, 2019), a competitive edge and escalating eagerness to work (Fleming, 2005; Tsaur *et al.*, 2019), empowerment (Baughman and Swing, 2001; Bolman and Deal, 2000; Tsaur *et al.*, 2019), customer support (Karl and Peluchette, 2006), and elasticity. From the employee's viewpoint, a stimulating workplace is the primary factor for increasing productivity and motivation (Tsaur *et al.*, 2019). Having fun at the workplace increases employees' passion (Tews *et al.*, 2012), organizational commitment (OC) (McDowell, 2004; Tsaur *et al.*, 2019), job contentment (Karl and Peluchette, 2006), turnover plan (Tews *et al.*, 2014), job effectiveness (Zani *et al.*, 2017), and enthusiasm (Tews *et al.*, 2017).

Psychological capital (PC) represents an individual's positive psychological condition of growth and is a personality construct derived from the concept of positive organizational behavior (POB) (Luthans *et al.*, 2007). Regarding organizational management, Luthans *et al.* (2004) noted that PC encourages workers to develop constructive organizational behavior, affects many types of job performance and work attitudes (Luthans *et al.*, 2007), and gives employees work happiness, organizational citizenship behavior (Avey *et al.*, 2009; Youssef and Luthans, 2007), and higher job engagement (Gupta and Shaheen, 2017; Karatepe and Avci, 2017). To the best of the authors' knowledge, studies have not addressed how having fun at work affects PC. Fluegge-Woolf (2014) noted that fun at work includes a social and participative component that is a form of productive resource. Saks and Gruman (2011) showed that four components of PC are developed by using organizational socialization resources. Socializing is an activity that reduces unpredictability (Bauer and Knill, 2007) and allows individuals to feel good, and so they build a high level of PC. Research has indicated a significant association between WF and PC (Tsaur *et al.*, 2019). Therefore, this study explores whether WF has a positive effect on workers' PC.

The principle of OC compels employees to decide whether to remain in an

organization or quit (Meyer *et al.*, 1993; Wu and Chen, 2018). An employee's commitment can help predict whether or not the employee will decide to remain a member of the organization (Allen and Meyer, 1996). This intellectual condition determines the connection of an employee's job with the company. Employees' OC is important for individual and organizational outcomes, because it links the organization and its clients (Patiar and Wang, 2016; Wu and Chen, 2018). Wu and Chen (2018) performed a real-world study of a hotel workplace and found that PC improves OC. The study by Zhou *et al.* (2018) in medicine and healthcare showed that nurses who experience high levels of pressure and workloads have OC that positively correlates to their perceived job control. Other studies achieved similar results and identified a significant relationship between PC and OC (Tang *et al.*, 2019; Wu and Chen, 2018). This present study measures the effect of PC on OC.

A skilled workforce is valuable to business institutions in high-tech industries that rely heavily on knowledge (Fritz *et al.*, 2011). Employees require continuous innovation to maintain pace with the industry and enhance their work's value. Hence, it can be inferred that employee innovation is increasingly essential for organizations to create and maintain a competitive edge.

Bao *et al.* (2012) described employees' innovative work behavior (IWB) as a course of action that involves finding different approaches, methods, or operating practices and utilizing those procedures for routine tasks. Employees' IWB has a significant effect on organizational performance (Bunpin *et al.*, 2016), and so the changing aspects of it and the application of innovation are crucial. For example, China is moving from a production economy to an economy with vast knowledge, and hence companies have evolved into teams with a mission to generate, implement, and enhance knowledge. These working employees love hard, innovative work and strive for perfection. By executing these duties, individuals showcase their attributes, boost their value, and win organizational approval and regard. Companies must understand the variables that cause employees to develop new products and services in order to maintain pace with the business trends and boost innovative performance (Carmeli and Spreitzer, 2009; Tang *et al.*, 2019). Studies have shown an essential connection between OC and employees' IWB

(Tang *et al.*, 2019). Hence, this study determines how OC affects employees' IWB.

The literature has confirmed that PC positively correlates to IWB for Chinese nurses (Yan *et al.*, 2020), which is consistent with the results of other research (Hu *et al.*, 2018). PC offers psychological support when staff develops innovative ideas (Abbas and Raja, 2015) and is an element of an individual's actions as a natural extension of positive psychology. Employees with higher PC more often view issues from a constructive angle and bounce back from setbacks better than employees with lower PC. PC is the primary endogenous part of organizational innovativeness and predicts employee innovation behavior as a robust positive resource (Sameer, 2018; Yan *et al.*, 2020). Hence, this paper presents the significance of the connection between PC and employees' IWB. Based on the established relationships between the variables of the study, this research aims to find the chain mediation of PC and OC for the relationship between WF and IWB. In addition, this research discovers the mediating effects of PC and OC in various relationships.

This study's contributions to the literature are multifold. First, it integrates WF, OC, IWB, and PC into a cohesive model, providing a comprehensive understanding of the intricate dynamics within the workplace (Kumar *et al.*, 2022; Vuong *et al.*, 2023). This integration allows for a nuanced examination of the interplay between these factors, offering a more holistic perspective on the mechanisms influencing employees' IWB. Second, the inclusion of Taiwan as the study's cultural context adds a valuable dimension, by acknowledging the influence of cultural nuances on the perception of WF and its impact on PC and IWB (Chen *et al.*, 2012; Guan *et al.*, 2022; Tao *et al.*, 2022; Wei *et al.*, 2021). This advances the broader literature by recognizing the significance of cultural aspects in shaping organizational dynamics. Third, the practical implications herein are substantial and provide actionable insights for industries seeking to foster innovation and employee well-being (Iqbal *et al.*, 2022; Zahoor *et al.*, 2022). Understanding WF's role in shaping positive outcomes offers valuable guidance for organizational strategies aimed at creating a conducive and IWB culture.

Fourth, this study is unique in filling the gap in the literature both

theoretically and empirically. Studies have determined the direct impact of WF with numerous variables (Chan, 2010; Karl and Peluchette, 2006; Tews *et al.*, 2014; Tews *et al.*, 2017; Tsaor *et al.*, 2019), but were inadequate in linking WF with IWB. Furthermore, studies have used PC and OC as sole mediating variables, but were somewhat inadequate in providing insights regarding the chain mediation of OC and PC (Tang *et al.*, 2019; Tang *et al.*, 2021; Tsaor *et al.*, 2019; Wu and Chen, 2018). This study empirically employs OC and PC as chain mediators based on the theoretical foundation of Saks and Gruman's (2011) socialization resources theory (SRT), the theory of POB (Youssef and Luthans, 2007), and the theory of PC (Luthans *et al.*, 2007) to determine the effect of WF on employees' IWB in an organization.

Fifth, this paper fills in another research gap from the limited depth of exploring the association between WF and employee IWB (Gashema and Kadhafi, 2020; Tews and Noe, 2019; Vuong *et al.*, 2023; Zani *et al.*, 2017). The justification for characterizing this as a research gap is rooted in requiring a more nuanced understanding of the intricate dynamics inherent in the WF and IWB nexus. The decision to integrate both PC and OC as mediator variables herein is in response to the inadequacy of other research in capturing the synergistic interactions and collective influence of these factors on employees' innovative outcomes. This paper aligns with a scholarly need to delve into the multifaceted nature of these relationships, aiming for a more comprehensive exploration of the mediating mechanisms that delineate the impact of WF on employees' IWB (Kumar *et al.*, 2022; Salas-Vallina *et al.*, 2020).

This research addresses the following research objectives empirically. It determines how WF affects PC, how PC affects both OC and employees' IWB, how OC affects employees' IWB, and the indirect effect of WF on employees' IWB. This study also identifies several practical implications for practitioners and managers in Taiwanese industry to boost workers' enthusiasm towards their jobs.

The rest of the paper runs as follows. Section 2 explains the literature review describing the theories used herein. Section 3 presents the development of hypotheses based on the theoretical framework of the research. Section 4 and

section 5 describe the methodology and data analysis, respectively. Lastly, section 6 offers discussions of the study's outcomes and critical implications.

2. Literature review

2.1 Linking positive organization, socialization resources, and Luthans'

PC theories

This study employs PC as one of the variables in the research framework, because it is a central concept in POB. POB is described as the employment of positive psychological resource capabilities and strengths that are effectively created, measured, and managed to enhance workplace performance (Luthans, 2002). PC and POB are based on the movement of positive psychology (Donaldson and Ko, 2010). Furthermore, the movement of positive psychology emphasizes the notions of strengths, merits, brilliance, flourishing, contentment, prosperous, spirit, movement, and optimum performance (Donaldson and Ko, 2010).

This study uses a dimensional approach to measure PC and therefore applies Luthans' multi-dimensional concept of PC (Luthans *et al.*, 2005). It is a focal multi-dimensional concept that aids in focusing individual capital concerns in corporations. PC consists of dimensions like optimism (OP), hope (HO), self-efficacy (SE), and resilience (RE) (Simons and Buitendach, 2013) and emphasizes the optimistic character and assets of workers and the part it plays in boosting their performance and growth (Luthans *et al.*, 2005). PC is linked to various variables related to organizational performance and attitudes (Luthans *et al.*, 2016) - for instance, happiness and satisfaction at the workplace and organizational citizenship (Avey *et al.*, 2008; Tang *et al.*, 2019; Tsaur *et al.*, 2019)

This study additionally employs SRT to link PC with constructs related to positive socialization, such as WF and OC (Nigah *et al.*, 2012; Tsaur *et al.*, 2019). SRT (Saks and Gruman, 2011) proposes that a resourceful organizational atmosphere is prone to enhance the PC dimensions of HO, SE, OP, and RE. In this research, SRT provides socialization as a resource that enhances PC for optimistic

outcomes of workers related to their IWB (Nigah *et al.*, 2012).

3. Hypotheses' development

3.1 Workplace fun and psychological capital

Luthans (2002) viewed PC as the study and implementation of human resources (HR) with positive attitude, strengths, and talents that are evaluated and evolve, along with the successful management of incremental performance in modern organizations. PC comprises four resources: optimism, hope, self-efficacy, and resilience (Luthans *et al.*, 2004; Xu *et al.*, 2022). Carver and Scheier (2002) noted that (1) optimists look for positive developments in their lives, and pessimists believe that unfortunate events will occur to them. (2) The definition of hope is an excellent emotional state that is prompted by and rooted in a shared perception of accomplishment and pathways that are planned to achieve goals and agency (Tsaur *et al.*, 2019). (3) Self-efficacy is a worker's confidence and persuasion about his or her skills to mobilize the motive, psychological capabilities, or actions required to carry out an intended action in a predetermined setting (Stajkovic and Luthans, 1998). Luthans (2002) defined (4) resilience as the capacity of mental strength to rebound from misfortune and failures, uncertainty, workplace conflicts, or positive developments, such as improved responsibility and progression.

WF possesses interactive and social characteristics that can be employed as an optimistic workplace resource (Fluegge-Woolf, 2014). Research has linked these workplace resources to PC's OP and SE dimensions (Xanthopoulou *et al.*, 2007). Additionally, these resources have been further associated with all dimensions of PC, including HO, SE, OP, and RE, by linking it to the social, organizational resources with the help of employing SRT (Saks and Gruman, 2011). It has been indicated that optimistic workplace resources like WF that are linked to the socialization process aid in lowering any risk (Bauer, 2007) and are resourceful at generating optimistic sentiments to in turn create PC (Tsaur *et al.*, 2019).

Studies of the hotel industry have used PC as an antecedent variable. PC increases an employee's work engagement (Paek *et al.*, 2015), work-life quality (Kim *et al.*, 2017), workplace contentment (Jung and Yoon, 2015; Karatepe and Karadas, 2015), life fulfillment (Paek *et al.*, 2015), voluntary commitment to the organization (Jung and Yoon, 2015), growth satisfaction (Paek *et al.*, 2015), and the overall morale of a worker (Paek *et al.*, 2015) and decreases both the intention to quit (Karatepe and Karadas, 2014) and family-work conflict (Karatepe and Karadas, 2014) as well as work-family conflict. Bouzari and Karatepe (2017) noted that sharing authority with subordinates positively affects a workforce's PC, and that its PC increases employees' intention to stay, sales, and service-oriented behaviors and decreases tardiness.

Few studies have targeted the connection between having fun at work and having PC. This study determines the correlation between the concepts of WF and PC by basing its assumptions on the implications of each of these terms. Workers' motivation and output are increased, and their emotional needs are met by creating an engaging work environment (Karl and Peluchette, 2006; Tsaur *et al.*, 2019). Emotionally and psychologically supported workers have a positive frame of mind and greater motivation (hope), and so they identify resources and strive to finish specific actions within a specific setting (self-efficacy). In difficult situations, they view complications enthusiastically and have the psychological ability to bounce back quickly (resilience) (Luthans *et al.*, 2007). A stimulating working environment has a positive effect on employees' PC.

Saks and Gruman (2011) developed SRT as the idea of providing resources that help socialization and noted that businesses develop new employees' PC by arranging social activities (including employee training, enhancing work attributes, and providing social support and leadership). The idea of having fun at work as a constructive resource includes a signification of social support, and there is a connection between this concept and the implication of social support that is included in the concept of socializing resources (Saks and Gruman, 2011; Tsaur *et al.*, 2019). This study proposes the following hypothesis.

Hypothesis 1. WF positively affects PC.

3.2 Psychological capital and organizational commitment

OC is the extent to which a person identifies with and cares about a specific organization. This allows employees of a business enterprise to understand its objectives and act in ways that help the organization (Naz *et al.*, 2020; Xu *et al.*, 2022). Podsakoff *et al.* (2000) noted that in gratitude for company support, employees behave well within the corporation. Salancik and Staw (1982) stated that commitment to an organization increases willingness to work regardless of the results of the actions. Workers who stay with their current employer are more committed to their jobs. Deluga (1994) offered that employees with OC are rewarded similarly by their bosses and organizations, which motivates them to embrace behaviors that contribute to the organization.

One aspect of an employee's work behavior within an organization is OC, which is a mindset that binds and ties individuals to the entire organization. OC, as an emotion of identification, involvement, and affiliation, negatively correlates to turnover and absence rates when employees are committed to the organization's objectives and desire to be a part of the organization (Robbins, 2005; Tang *et al.*, 2021). When employees are loyal to the organization, competitiveness within the organization increases, which can lead to instability (Tang *et al.*, 2021). PC is a very new area of study, and there are few published studies at the group or organizational level (Newman *et al.*, 2014).

Research has indicated that the four dimensions of PC can be created and linked with workers' efficiency, conduct, and attitudes. Furthermore, the association of PC is comparatively stronger with the workers' attitude in organizations that are prone to enhance their conduct in accordance with the aims and objectives of the organizations (Luthans *et al.*, 2007). Other research has indicated that employees possessing high levels of OP and SE are more satisfied at their work and have a significant level of OC (Rego *et al.*, 2016; Wu and Chen, 2018)

Papers on PC for hospitality workers and the relevant attitudes or behavioral

characteristics associated with it on an individual basis include Karatepe and Karadas (2014), who hypothesized that constructive PC decreases disputes between one's family and job and curbs intention to leave the workforce. Jung and Yoon (2015) noted that PC and organizational citizenship behaviors significantly correlate. Karatepe and Karadas (2015) also showed that job engagement positively affects job attitude and PC. Hsiao *et al.* (2015) stated that sharing authority with subordinates causes employees to have more positive performance reviews. Bouzari and Karatepe (2017) determined how leadership, PC, and the attitudes and actions of employees relate to each other. An increased PC level increases OC and the likelihood of employees staying in their jobs (Paek *et al.*, 2015; Wu and Chen, 2018). The following hypothesis is proposed.

Hypothesis 2. PC positively affects OC.

3.3 Psychological capital and employee innovative behavior

Businesses gain a competitive edge through innovation (Tang *et al.*, 2021). Employee innovation contributes to developing fresh, workable ideas and solutions for enterprise-related services, goods, and business operations. Organizational innovation begins when employees engage in innovative behaviors at work, such as problem-solving, taking advantage of opportunities, and actively conceiving and then putting into action new ideas, products, services, and markets. Studies of organizational innovation have determined how to persuade employees to put their creativity to use rather than how to inspire them to develop it (Anderson *et al.*, 2014).

Janssen (2000) noted that employees' IWB relates to the creation, adoption, and use of fresh ideas inside a team or business. Employee innovation is crucial for any company, as it increases work efficiency and company performance (Tang *et al.*, 2021). Studies of organizational behavior determine how organizations foster new ideas, how to create a conducive environment, and whether or not they can assist their employees in implementing ideas (Tang *et al.*, 2021; Tierney and Farmer, 2002). Through the process of self-cognition, the social context of an organization affects the degree of innovation in workers (Yuan and Woodman,

2010). Self-confidence or inventiveness in an employee is vital in completing creative activities efficiently (Tierney and Farmer, 2002). Businesses must balance the challenges of quick technical change and a challenging economic climate.

This study describes IWB as the total behavioral pattern for workers seeking, establishing, putting into practice, and successfully implementing ideas for innovations, new procedures, new methods, or new production methods to transform into valuable outcomes (Tang *et al.*, 2021). Luthans *et al.* (2005) and Cole (2009) proposed models that show that PC has a direct effect on employees and organizational outcome variables. This is the main effect of the model. Middle-effects and buffer models show that PC indirectly affects the outcome.

The link between PC and innovation is complex. Some studies have shown that PC increases creativeness (Sweetman *et al.*, 2011). A study by Wang showed that PC affects nurses' readiness to practice new methods. An employee's IWB is affected by the employee, the business institution, and work characteristics based on the organizational innovation multi-dimensional framework (Crossan and Apaydin, 2010; Yan *et al.*, 2020). This study determines the relationship between PC and employees' IWB (Yan *et al.*, 2020).

Hypothesis 3. PC positively affects employees' IWB.

3.4 Organizational commitment and employee innovative behavior

The literature has discovered whenever workers experience a high level of OC that they will identify themselves more with the aims and goals of the organization, which in turn enable them to engage in extra tasks and activities for the betterment of the organization. Hence, the workers will be more prone to engage in IWB for the exploration, promotion, and implementation of innovative concepts in the organization (Battistelli *et al.*, 2019). Thus, it can be inferred that employees committed towards the attainment of a certain organizational goal are more likely to develop and engage in IWB activities. Consequently, OC is associated with IWB (Tang *et al.*, 2019; Vuong *et al.*, 2023).

OC is an intrapersonal normative factor that increases the likelihood that individuals agree with the organization's objectives and priorities. Employees

acknowledge the team's goals if they are committed to the organization and give their best. Mathieu and Zajac (1990) also noted that an employee's innovative activity is a manifestation of dedication. That study showed strong links between OC and employees' IWB (Jafri, 2010; Tang *et al.*, 2019). Empirical evidence has shown a strong positive correlation between OC and innovation performance in the retail industry (Jafri, 2010). Wiener (1982) noted that OC is a personal motivation that spurs employees to participate in activities that align with the organization's interests and aims (Tang *et al.*, 2021). We present the next hypothesis.

Hypothesis 4. OC positively affects employees' IWB.

3.5 Organizational commitment and psychological capital as mediators

WF is an organizational resource with interactive and social characteristics (Becker and Tews, 2016). These interactive and social characteristics of WF are most likely to enhance workers' fun or happy emotions (Tews and Noe, 2019). Hence, WF can be described as a variable possessing environmental attributes. Research has indicated that environmental attributes help to enhance job assessment in accordance with capabilities, importance, emotions, and selection criteria and in turn impact the resulting conduct (Thomas and Velthouse, 1990). Environmental attributes are found to impact workers' performance through PC, which indicates the mediation capabilities of PC (Luthans *et al.*, 2007). In addition, SRT indicates that organizational resources can enhance all four dimensions of PC (Saks and Gruman, 2011). It was further discovered that social characteristics are employed by organizations to aid new workers in the creation of optimistic feelings (Nigah *et al.*, 2012), which are responsible for supporting the workers in the attainment of higher PC, which then further impacts and predicts employees' IWB (Tang *et al.*, 2021) and OC (Yan *et al.*, 2020). Hence, this research aims to find the mediating impact of PC on the WF and IWB nexus (WF → PC → IWB) and the WF and OC nexus (WF → PC → OC). Hence, the following hypotheses are proposed.

Hypothesis 5. PC mediates the relationship between WF and employees' IWB.

Hypothesis 6. PC mediates the relationship between WF and OC.

One study in the hotel context found a significant association between PC and OC (Wu and Chen, 2018). Hospital-based research has focused on PC's link with the high levels of workload and stress of nurses. PC has been found to impact employees' OC (Zhou *et al.*, 2018). Similarly, a study conducted in Turkey presented a correlation between OP and HO dimensions of PC with OC and job satisfaction (Çetin, 2011). Other studies have also reconfirmed the relationship between PC and OC (Tang *et al.*, 2019; Wu and Chen, 2018).

As OC relates to workers' devotion to their organization, it is regarded as a motivating force that drives them to engage in extra activities for the attainment and fulfillment of the organization's aims and goals. Previously, it was proposed that workers' IWB relates to extra work activities (Mathieu and Zajac, 1990). A significantly positive association has been discovered between OC and IWB (Tang *et al.*, 2021). The above discussion hypothesizes OC in a mediating role (PC → OC → IWB). Hence, the following hypothesis is proposed.

Hypothesis 7. OC mediates the relationship between PC and employees' IWB.

To offer further insights, this study aims to discover the chain mediation impacts of PC and OC on the WF and IWB nexus (WF → PC → OC → IWB). The following hypothesis is presented.

Hypothesis 8. PC and OC chain mediate the relationship between WF and employees' IWB.

Figure 1 illustrates the theoretical framework of this study.

4. Methodology

This study's participants were Taiwanese workers employed in different businesses. A total of 410 workers were selected using a convenience sampling technique. The sample businesses cover a diverse set of manufacturing industries (fast moving consumer goods (FMCGs), electronics, and plastics) and service industries (restaurants, hotels, and cafes). This study employed a research company to collect data from the employees with the help of a closed-ended, self-

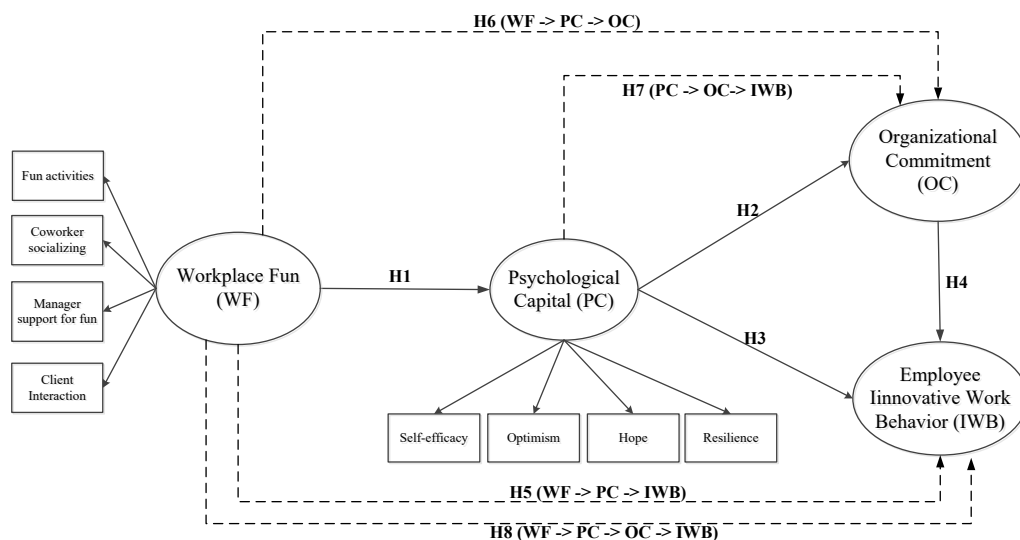


Figure 1
Theoretical framework

administered questionnaire. The response rate was 91.30%, which is a reasonable response rate (Comrey and Lee, 1992; MacCallum *et al.*, 1999). The study's sample characteristics appear in Table 1. From the table outcomes, the number of male respondents is comparatively higher at 54.1%. Based on age characteristics, two groups, including samples aged under 30 years (35.7%) and samples between the ages of 30 to 39 (31.3%), represent the majority of the total sample.

Questions with answers on a Likert scale help determine how strongly participants agreed or disagreed with statements. Responses to these questions were graded on a scale of 1 to 7, with 7 representing strong agreement, 1 representing strong disagreement, and 4 representing neutrality.

In terms of the measurement tool's reliability, studies have shown that the validity of the Likert scale is increased when using a 5- to 7-point Likert scale. A 10-point Likert scale provides a lower score, and so it is not as reliable (Khan *et al.*, 2021). The PC-measure items were adjusted and adapted from Santos *et al.* (2018). The items to measure WF were modified from Tsaur *et al.* (2019). The elements to measure OC were adapted from Ko (2021). The criteria to measure

IWB were adopted from Lai *et al.* (2016). A pilot test was conducted using 100 randomly chosen representative employees before the official survey was launched. The sample chosen for this test were workers employed in different industries in Taiwan who represented similar characteristics for the sample to be studied in the main research (Roopa and Rani, 2012). This test was used to evaluate and validate the survey questionnaire. The questionnaire items are provided in the appendix section of the manuscript.

5. Data analysis

The collected data were analyzed using the PLS (partial least squares) method. There are two phases to this study. The study's first phase involves checking the constructs' reliability and validity, and the second phase involves calculating causal directions for constructs and path coefficients (Anderson and Gerbing, 1988; Hulland, 1999). PLS is the best method for maintaining the suggested connections and calculating complex research frameworks (Petter *et al.*, 2007). The availability of efficient indicators for variable normality and randomness in the results of a study makes PLS appropriate for measuring outcomes with an irregular distribution. Dynamic research frameworks are also used (Chin and Newsted, 1999; Zhao and Khan, 2021). PLS is preferable to other SEM methods to analyze the data of this study.

5.1 Common method bias

The importance of common method bias is stressed in survey research (Podsakoff *et al.*, 2003). Hence, this research employed Harman's single-factor method to examine common method bias in its survey. According to this test, a survey exhibits common method bias if the outcome of any single factor is higher than 50% in comparison to the variance of all the items with the help of an unrotated matrix (Aguirre-Urreta and Hu, 2019; Podsakoff *et al.*, 2003). According to the results of this study, the value for Harman's single-factor test was 30.801%. This means that common method bias was not present in the survey, because the value was less than fifty percent, meaning none of the factors accounted for more

Table 1
Sample characteristics

Respondents' Gender	Percentage
Male	54.1
Female	45.9
Total	100
Respondents' Age	Percentage
Under 30	35.7
30 to 39	31.3
40 to 49	18.4
50 to 59	10.2
Over 60	4.4
Total	100

than a variance of 50%.

5.2 Descriptive statistics

This research employed four variables: WF, PC, OC, and IWB. Two variables, OC and IWB, were first-order constructs, whereas PC and WF were second-order constructs. PC included SE, HO, OP, and RE as its components. WF included CI, CS, FA, and MS as its components. Table 2 represents the correlation matrix and descriptive statistics, including the mean and standard deviation of the research constructs. This research employed the Fornell and Larcker (1981) criteria to determine the correlations between the constructs of the study. To measure the latent constructs, this technique uses the square root of AVE (average variance estimate) (Ab Hamid *et al.*, 2017). Table 2 shows that the constructs are more effective at explaining variation than other indicators, because the square root of AVEs is greater than that for competing constructs. Furthermore, in Table 2 all the constructs show low collinearity with other variables versus their relative second-order construct in the table.

Table 2
Descriptive statistics and correlation matrix

Construct	Mean	Standard Deviation	CI	CS	IWB	FA	HO	MS	OP	OC	PC	RE	SE	WF
CI	5.753	1.189	0.953											
CS	5.937	1.118	0.565	0.888										
IWB	5.445	1.401	0.687	0.619	0.862									
FA	5.698	1.239	0.651	0.608	0.759	0.863								
HO	5.953	1.013	0.715	0.566	0.651	0.645	0.881							
MS	5.496	1.440	0.650	0.612	0.792	0.723	0.594	0.908						
Op	5.846	1.129	0.702	0.555	0.654	0.662	0.839	0.634	0.865					
OC	5.726	1.225	0.742	0.603	0.839	0.721	0.725	0.785	0.710	0.895				
PC	5.937	1.104	0.759	0.590	0.677	0.690	0.950	0.630	0.929	0.742	0.823			
Re	5.920	0.990	0.751	0.583	0.684	0.697	0.890	0.638	0.851	0.739	0.952	0.887		
SE	6.030	1.030	0.676	0.506	0.551	0.582	0.824	0.497	0.821	0.608	0.921	0.818	0.873	
WF	5.721	1.246	0.819	0.799	0.845	0.888	0.731	0.897	0.745	0.839	0.774	0.776	0.652	0.770

Notes: SE = Self-efficacy, OP = Optimism, HO = Hope, RE = Resilience, PC = Psychological Capital, FA = Fun Activities, CI = Client Interaction, CS = Co-worker Socializing, MS = Manager Support for Fun, WF = Workplace Fun, OC = Organizational Commitment, and IWB = Innovative Work Behavior. The value of the diagonal is the square root of AVE

5.3 Convergent validity

Table 3 shows that the Rho_A and Cronbach Alpha's values for all constructs are greater than 0.7. The CR values for all constructs are also greater than 0.7 (Chin, 1998), demonstrating the instrument's internal validity. This result is consistent with those in Table 3. A construct has strong convergent validity in a value greater than 0.5 for AVE (Fornell and Larcker, 1981). The AVE values were between 0.742 to 0.908 (as shown in Table 1), demonstrating a high degree of convergence.

5.4 Discriminant validity

The degree to which two constructs can be distinguished is called discriminant validity. The Heterotrait-Monotrait Ratio (HTMT) for associations is an advanced instrument that is also used to determine discriminant validity. The

Table 3
Descriptive statistics and correlation matrix

Construct Name	Indicator	Factor Loading	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
CI	CI1	0.938	0.949	0.949	0.967	0.908
	CI2	0.958				
	CI3	0.962				
CS	CS1	0.888	0.910	0.912	0.937	0.788
	CS2	0.889				
	CS3	0.908				
	CS4	0.864				
FA	FA1	0.820	0.914	0.916	0.936	0.745
	FA2	0.896				
	FA3	0.858				
	FA4	0.903				
	FA5	0.837				
MS	MS1	0.912	0.945	0.953	0.959	0.824
	MS2	0.950				
	MS3	0.951				
	MS4	0.942				
	MS5	0.769				
IWB	IWB1	0.912	0.919	0.956	0.942	0.742
	IWB2	0.931				
	IWB3	0.931				
	IWB4	0.921				
	IWB5	0.939				
OC	OC1	0.901	0.938	0.938	0.953	0.802
	OC2	0.923				
	OC3	0.936				
	OC4	0.881				
	OC5	0.832				
HO	HO1	0.878	0.943	0.943	0.954	0.777
	HO2	0.896				
	HO3	0.893				
	HO4	0.889				
	HO5	0.856				
	HO6	0.876				
OP	OP1	0.855	0.916	0.917	0.937	0.748
	OP2	0.875				
	OP3	0.858				
	OP4	0.880				
	OP5	0.857				
RE	RE1	0.869	0.946	0.946	0.957	0.787
	RE2	0.881				
	RE3	0.896				
	RE4	0.882				
	RE5	0.905				
	RE6	0.887				
SE	SE1	0.852	0.937	0.939	0.951	0.762
	SE2	0.863				
	SE3	0.869				
	SE4	0.912				
	SE5	0.902				
	SE6	0.839				

Note: OP = Optimism, SE = Self-efficacy, HO = Hope, PC = Psychological Capital, RE = Resilience, FA = Fun Activities, CS = Co-worker Socializing, CI = Client Interaction, MS = Manager Support for Fun, OC = Organizational Commitment, WF = Workplace Fun, and IWB = Innovative Work Behavior.

most significant value for HTMT that verifies the validity is 0.85, but a value greater than the threshold value illustrates an issue with discriminant validity. Table 4 shows the HTMT results (Henseler *et al.*, 2015).

This study calculates GOF (goodness of fit) using the equation of Tenenhaus *et al.* (2005) to characterize the overall quality of the constructed model:

$$\text{GOF} = \sqrt{\text{AVE}} \times \sqrt{\text{R}^2} = \sqrt{0.788 \times 0.679} = 0.731$$

GOF is 0.731, which meets the threshold to achieve a significant effect size of 0.268 (Wetzels *et al.*, 2009).

5.5 Empirical results

Path analysis for the study framework assessment was performed using Smart PLS 3.2.8. The inner model is computed in this phase. The hypotheses that the internal model proposed were validated by calculating a p-value and a t-value. The hypotheses were supported if the t-value is greater than 1.96 and the p-value

Table 4
Heterotrait-monotrait ratio (HTMT)

Construct	CI	CS	IWB	FA	HO	MS	OP	OC	PC	RE	SE	WF
CI												
CS	0.605											
IWB	0.732	0.676										
FA	0.699	0.664	0.820									
HO	0.756	0.610	0.690	0.696								
MS	0.685	0.655	0.848	0.775	0.627							
OP	0.751	0.606	0.710	0.724	0.898	0.678						
OC	0.785	0.651	0.895	0.778	0.771	0.833	0.765					
PC	0.787	0.623	0.709	0.729	0.788	0.650	0.779	0.773				
RE	0.793	0.627	0.730	0.750	0.842	0.672	0.812	0.784	0.788			
SE	0.717	0.547	0.595	0.630	0.775	0.526	0.882	0.647	0.764	0.768		
WF	0.842	0.834	0.817	0.849	0.768	0.738	0.792	0.783	0.797	0.813	0.686	

Note: SE = Self-efficacy, OP = Optimism, HO = Hope, RE = Resilience, PC = Psychological Capital, FA = Fun Activities, CI = Client Interaction, CS = Co-worker Socializing, MS = Manager Support for Fun, WF = Workplace Fun, OC = Organizational Commitment, and IWB = Innovative Work Behavior.

is less than 0.05. R square signifies the ratio of predictor constructs, which determines the predictive ability of the research framework (Chen *et al.*, 2021; Khan *et al.*, 2021; Xu *et al.*, 2021). The R square value is substantial if it is around 0.67, moderate if it is around 0.33, and weak if it is around 0.19 (Chin, 1998).

Table 5 and Figure 2 show the empirical results. Data for this study show that WF has a significant effect on PC, and so H1 is supported ($\beta = 0.775$, t-value = 32.306). PC has a significant effect on OC; hence, H2 is also accepted ($\beta = 0.743$, t-value = 26.863). PC has a significant effect on IWB, thus supporting H3 ($\beta = 0.115$, t-value = 2.137). A statistically significant correlation exists between OC and employees' IWB; hence, H4 is also supported ($\beta = 0.754$, t-value = 14.441).

The data for Table 6 are generated using SMART PLS and show the indirect effects of the study. The results show that PC and OC act as mediators between WF and IWB ($\beta = 0.434$, t-value = 11.720) and PC acts as a mediator exclusively ($\beta = 0.089$, t-value = 2.089) for the relationship between WF and IWB. The mediating effect of PC on the relationship between WF and OC is statistically indirectly significant ($\beta = 0.576$, t-value = 16.409). These results show that PC indirectly significantly correlates to IWB, and OC is the mediating variable ($\beta = 0.560$, t-value = 13.381).

6. Discussion

6.1 Discussion and conclusions

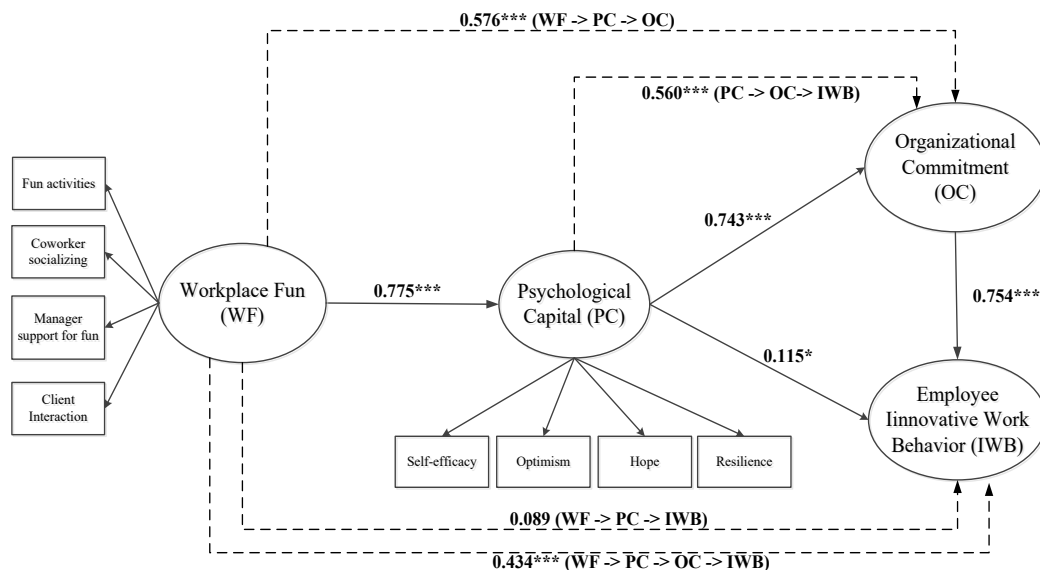
This study used OC, Saks, and Gruman's theory of socialization resources, the theory of positive organizational behavior, and Luthan's theory of PC to determine the effect of WF on employees' IWB. This study addressed four direct relationships. The study determined how PC was affected by WF, how PC affected OC and workers' IWB, and the effect of OC on workers' IWB. This research also discovered all the indirect effects of WF on employees' IWB.

The results of this study showed that WF was strongly linked to a positive attitude towards PC. The results are reasonably consistent with those of Tsauro *et al.* (2019), who evaluated the WF and work engagement nexus. Tsauro *et al.* (2019)

Table 5
Empirical results

Hypothesis	Path Coefficient (β)	T Value	P Value
H1: WF -> PC	0.775	32.306	0.000
H2: PC -> OC	0.743	26.863	0.000
H3: PC -> IWB	0.115	2.137	0.033
H4: OC -> IWB	0.754	14.441	0.000

Note: PC = Psychological Capital, WF = Workplace Fun, OC = Organizational Commitment, and IWB = Innovative Work Behavior.



Note: * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

Figure 2
Research results

applied the concept of PC within the context of the hotel industry to determine the moderating and mediating roles in this relationship. Employees on the front line of Taiwan’s tourism and hospitality businesses were the focus of that study. According to the findings of Tsaur *et al.* (2019), WF significantly boosted

Table 6
Indirect effects

Indirect Effect	Path Coefficient (β)	T Value	P Value
H5: WF -> PC -> IWB	0.089	2.089	0.037
H6: WF -> PC -> OC	0.576	16.409	0.000
H7: PC -> OC -> IWB	0.560	13.381	0.000
H8: WF -> PC -> OC -> IWB	0.434	11.720	0.000

Note: PC = Psychological Capital, WF = Workplace Fun, OC = Organizational Commitment, and IWB = Innovative Work Behavior.

employees' PC. Regarding the relationship between workplace engagement and WF, PC acted as a partial mediator. PC had a strong moderating effect on the relationship between work engagement and WF, and it was also found to strengthen the connection between WF and work engagement.

This study also showed a strong relationship between PC and OC. The results herein are comparable to those of Wu and Chen (2018), who took a macro-level view of the social exchange theory to determine the relationships among collective PC, shared leadership, creativity, and OC in Taiwan's hospitality sector. Their study showed that PC mediates the relationship between OC and creativity.

This study's results also showed a link between PC and IWB for workers. Similar results were achieved by Yan *et al.* (2020). Using structural equation modeling, Yan *et al.* (2020) determined the relationship between PC and IWB for nurses - specifically, the role of serial-multiple mediation of work control and innovation atmosphere perception in the workplace. Yan *et al.*'s (2020) study showed that job control and the perception of an organizational innovative climate play a crucial mediating role between PC and IWB activity. Nurses' IWB rises via PC.

There was also a strong relationship between OC and IWB. This study's results are comparable to those of Tang *et al.* (2021). The study by Tang *et al.* (2021) involved the IT sector. Businesses in this sector often consider employees to be primary value creators. To increase employee innovation, creativity, and commitment and to decrease turnover intentions, companies actively strive to

build employer-employee relationships in which workers' commitment to staying with the company is motivated by more than just financial rewards. HR professionals must encourage workers to voluntarily invest in their work and see organizational growth as an integral part of their professional development. By studying moderators such as job satisfaction and OC, Tang *et al.* (2021) determined how well-matched people felt about their organization and how jobs affected their intentions to stay or leave their positions. According to the findings of Tang *et al.* (2021), employees' propensity to innovate on the job and their intention to leave an organization were positively affected by OC and work satisfaction. This shows that businesses should hire the best possible staff, increase employee satisfaction at work, and plan for the long term.

This study demonstrates that WF strongly and indirectly correlates with IWB when PC and OC are mediators and with PC alone as a mediator. The results herein are consistent with those of Aria *et al.* (2019), who took PC and perceived organizational support (POS) as mediating variables for high school teachers and as mediators to determine the relationship between leadership and employees' intention to stay. According to the results of Aria *et al.*'s (2019) study, PC and POS were mediating variables for the relationship between leadership and intention to stay. Another study by Ko (2021) also used OC as a mediating variable, measuring the effect of social capital on the subjective health of employees, using OC and quality of work-life as mediators. The study involved employees who work in the public sector in South Africa and utilized OC and work-life quality as mediators.

6.2 Theoretical implications

This study makes substantial theoretical contributions to the employed framework by integrating and extending key organizational behavior theories. First, rooted in the socialization resources theory (Birtch *et al.*, 2016; Mitchell *et al.*, 2012), the study reveals WF as a potent socialization resource, fostering employee adaptation and subsequently influencing IWB. This dual role of WF not only advances this theory, but also enhances our understanding of the mechanisms connecting enjoyable work environments with innovative outcomes. Second, the

study enriches the positive organizational behavior theory (Donaldson and Ko, 2010; Luthans and Youssef-Morgan, 2017) by demonstrating the expanded pathway that links WF to innovative outcomes through PC and OC and provides a nuanced understanding of how positive organizational behavior influences employee IWB. Integrating these theories and unveiling the mediating roles of PC (Lei *et al.*, 2020) and OC (Ibrahim Alzamel *et al.*, 2020), the study presents a comprehensive theoretical framework and elucidates the interconnected processes through which WF affects IWB, thus bridging gaps in the literature and paving the way for a more holistic understanding of the organizational dynamics shaping employee innovation.

Contribution is vital for enhancing managerial importance, and this necessitates various investigations. Several theoretical advances are made possible by this study. First, it offers fresh perspectives on implementing Saks and Gruman's (2011) theory of socialization resources. It shows that businesses can increase new hires' PC through social initiatives (including new job characteristics, training for employees, leadership, and social support). The concept of socialization resources is associated with the social support connotation that this study attributes to WF (Saks and Gruman, 2011; Tsaur *et al.*, 2019). Hence, this research hypothesizes and validates the relationship between WF and PC. In addition, this research is unique in terms of empirically proving the relationship between WF and PC in the context of Taiwan's industries. The empirical results herein infer based on SRT that organizations should focus more on WF, which denotes a workplace resource, and its direct association with PC, which denotes a personal resource.

Second, this study theoretically contributes to the PC's theory of POB (Luthans, 2002) and Luthans' theory by taking PC as a second-order construct comprising SE, RE, OP, and HO (Luthans *et al.*, 2007). This research further theoretically indicates that PC plays a vital role in motivating employees about IWB. Thus, the present research theoretically hypothesizes and validates the PC and IWB nexus. The outcomes empirically and theoretically support the literature, indicating a positive association between PC and IWB (Kumar *et al.*, 2022; Yan *et*

al., 2020). PC is associated with the POB theory and hence closely relates to the conduct of employees. Consequently, it is inferred that employees having higher PC will better face organizational issues with OP. Thus, PC and employees' skills are deemed to significantly impact employees' IWB.

Third, this research also advances the literature regarding PC by linking it with OC. It follows the idea that PC is created by those employees who are optimistic in regard to their capabilities and feel more satisfied at their workplace, which in turn enhance their OC (Rego *et al.*, 2016; Wu and Chen, 2018). Consequently, this research empirically hypothesizes and proves a significant relationship between PC and OC.

Fourth, this study further contributes to OC literature by linking it to IWB. It theoretically indicates that employees having a high level of OC are more prone to link themselves with the organization's aims and make efforts to engage in extra activities for the success of their organization (Battistelli *et al.*, 2019). This study further infers that employees engaged in extra activities are active in employees' IWB to attain the organizational goals and empirically proves the hypothesized relationship between OC and IWB. The outcome of this research empirically and theoretically supports the notion that the level of employees' commitment to their organization is directly associated with the effort they put into the engagement of IWB for the attainment of organizational aims. Hence, OC is linked with IWB (Battistelli *et al.*, 2019; Vuong *et al.*, 2023).

Fifth and finally, in terms of the chain mediation of PC and OC, no previous studies have demonstrated that WF has an indirect impact on IWB. This study contributes significantly to the literature on Taiwan's industry by being the first empirical one to confirm that WF has a significantly positive impact on PC and a significantly indirect effect on IWB. It also shows that OC and PC have an indirect role between WF and employees' IWB, meaning that WF significantly affects employees' IWB through OC and PC. Studies have noted when companies invest in a more enjoyable workplace for their employees that productivity and engagement at work increase.

6.3 Practical implications

Workers exhibit social traits, because of the industry's emphasis on human interaction. Managers must encourage WF by hosting events such as birthday parties, competitions, and employee recognition ceremonies, which would strengthen employees' social ties to each other and generate happy feelings that boost productivity. PC also has a positive effect on IWB. Workers benefit significantly from a high level of PC, and managers must ensure that they keep or gain proficiency in their work through positive reinforcement and encourage them to demonstrate more IWB.

Business organizations gain a competitive edge when their employees' PC increases. Hence, applicants for jobs are advised to complete a PC questionnaire during recruitment to ensure that personnel with a higher PC are hired, because PC is an indirect variable between IWB and WF. Having more people in a company with a high PC makes the workplace even more enjoyable. Consequently, workers must generate a distinctive mindset. Administrators must also promote entertaining events to encourage employees to socialize and increase their PC.

Employees' IWB rises when catering to their emotional needs. Human resources departments should provide relevant training courses for employees. Participating in training programs boosts workers' confidence in their abilities to do their jobs well. The hope and optimism of workers increase if they feel more confident in their ability to do their jobs after participating in activities that are designed to boost self-efficacy, such as role modeling and practice. Employees who participate in and complete training develop greater mental resilience and deal better with workplace stress. When workers build more PC capital, an increase in workplace enjoyment strengthens their intention to work.

Industries must also focus on their workers' careers by providing them with training and learning opportunities. These investments in their careers increase the organizations' OC (Chen *et al.*, 2012). Workers' OC rises by encouraging communication between workers and managers in organizations (Afsar *et al.*, 2018). Employees' OC also increases by enhancing their power as decision-

makers in the organization (Xu *et al.*, 2022).

6.4 Limitations and future research

In order to determine WF's effect on PC and the relationship between OC and PC and between WF and IWB, this study evaluates data on respondents from different Taiwan industries. Future studies might target specific industries, such as the technology industry or the manufacturing industry. Taiwan's industrial sector could be studied to determine how WF affects employees' intrinsic motivation across different sectors. This study pertains to Taiwan, a developing economy, and so the research methodology could be applied to more developed countries. WF is increasingly important, and organizational characteristics should be an element when studying the relationship between WF and other variables.

This study uses PC as a second-order construct. However, PC could be a first-order construct, consisting of hope, optimism, resilience, and self-efficacy as independent constructs (Xu *et al.*, 2022). Hence, to support Luthans *et al.*'s. (2007) theory of PC, future studies might determine the independent effect of each dimension of PC to allow researchers to employ the most relevant parts of PC, as practiced by other researchers (Gardner *et al.*, 2005; Walumbwa *et al.*, 2008).

This study adopted a PLS-SEM methodology and collected the data for this study from the same individuals at the same time frame, hence, to assure the issue of common method variance (CMV), this research employed Harman's single factor test, which is deemed as a leanient approach and might omit some variances. Hence, future researchers opting to utilize PLS-SEM approaches can include a "marker variable" to deal with the issue of CMV (Chin *et al.*, 2013; Rönkkö and Ylitalo, 2011). Researchers taking a covariance-based structural equation modelling (CB-SEM) approach can use other statistical analysis tools that are recommended by Podsakoff *et al.* (2003).

Appendix A. Questionnaire

Psychological Capital (scaled from strongly disagree to strongly agree on a 7-point scale)
(Santos *et al.*, 2018)

Work Self-efficacy

- SE1 I feel confident in analyzing a long-term problem to find a solution.
- SE2 I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.
- SE3 Although the supervisor assigns me an extra job that I never have done, I still believe in my ability that I can do it.
- SE4 I am confident in my performance that I can work under pressure and in challenging circumstances.
- SE5 I feel confident that I can accomplish my work goals.
- SE6 If the organization transforms a new working system that is difficult to understand, I am still confident that I can learn new things from this system.

Optimism

- OP1 I am optimistic about what will happen to me in the future as it pertains to work.
- OP2 At work, I always find that every problem has a solution.
- OP3 I believe that all the problems occurring at work always have a bright side.
- OP4 If I face a bad situation, I believe everything will change for the better.
- OP5 I believe that success in the current work will occur in the future.

Hope

- HO1 At present, I am energetically pursuing my work goals.
- HO2 I have several ways to accomplish the work goal.
- HO3 When I find that my performance appraisal is less than the expected goal, I try to find ways to improve and then start to do better.
- HO4 Now, I feel that I am energetic to accomplish the work goal.
- HO5 When I set goals and plan to work, I concentrate on achieving the goal.
- HO6 I work towards goals set by the belief that "Where there is a will, there is a way."

Resilience

RE1	I usually manage difficulties one way or another at work.
RE2	I usually take stressful things at work in stride.
RE3	Although my work has failed, I will try to make it a success again.
RE4	Although too much responsibility at work makes me feel awkward, I can go through work successfully.
RE5	I am undiscouraged and ready to face difficulties at work.
RE6	When faced with disappointment at work, “I might have fallen, but I can quickly get up.”

Workplace Fun (scaled from strongly disagree to “strongly agree” on a 7-point scale) (Tsaur *et al.*, 2019)

Fun Activities

FA1	My organization conducts public celebrations of work achievements.
FA2	My organization plans team-building activities.
FA3	There is a recognition for my milestones in the organization.
FA4	My organization conducts various social events.
FA5	My organization engages in various competitions.

Co-worker Socializing

CS1	My co-workers and I share stories.
CS2	My co-workers and I joke around with each other.
CS3	My co-workers and I socialize at work.
CS4	My co-workers and I socialize outside of work.

Manager Support for Fun

MS1	My managers encourage employees to have fun on the job.
MS2	My managers emphasize employee fun in the workplace.
MS3	My managers try to make my work fun.
MS4	My managers care about employees having fun on the job.
MS5	My managers allow employees to play around on the job.

Client Interaction

CI1	I always enjoy fun in serving customers.
CI2	I enjoy communicating and interacting with clients.
CI3	I can have fun with my interaction with clients.

Organizational Commitment (scaled from strongly disagree to “strongly agree” on a 7-point scale) (Ko, 2021)

OC1	I am glad that I chose to work for this organization.
OC2	I am proud to tell others that I work at this organization.
OC3	This organization has a great deal of personal meaning for me.
OC4	I put in a great deal of effort beyond what is normally expected to help this organization be successful.
OC5	I am willing and ready to do anything for my organization.

Workplace Innovative Behavior (scaled from strongly disagree to strongly agree on a 7-

point scale) (Lai *et al.*, 2016)

IWB1	The employees of my organization as a group search out new technologies, processes, techniques, and/or product ideas.
IWB2	The employees of my organization as a group generate creative ideas.
IWB3	The employees of my organization as a group promote and champion ideas to others.
IWB4	The employees of my organization as a group investigate and secure funds needed to implement new ideas.
IWB5	The employees of my organization as a group develop adequate plans and schedules for the implementation of new ideas.
IWB6	The employees of my organization as a group are not innovative.

References

- Ab Hamid, M. R., Sami, W., and Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012163). IOP Publishing.
- Abbas, M., and Raja, U. (2015). Impact of psychological capital on innovative performance and job stress. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 32(2), 128-138.
- Afsar, B., Cheema, S., and Bin Saeed, B. (2018). Do nurses display innovative work behavior when their values match with hospitals' values? *European Journal of innovation management*, 21(1), 157-171.
- Aguirre-Urreta, M. I., and Hu, J. (2019). Detecting common method bias: Performance of the Harman's single-factor test. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, 50(2), 45-70.
- Allen, N. J., and Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of vocational behavior*, 49(3), 252-276.
- Anderson, J. C., and Gerbing, D. W. (1988). Structural equation modeling in

- practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Anderson, N., Potočnik, K., and Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, 40(5), 1297-1333.
- Aria, A., Jafari, P., and Behifar, M. (2019). Authentic leadership and teachers' intention to stay: The mediating role of perceived organizational support and psychological capital. *World Journal of Education*, 9(3), 67-81.
- Avey, J. B., Luthans, F., and Jensen, S. M. (2009). Psychological capital: A positive resource for combating employee stress and turnover. *Human resource management*, 48(5), 677-693.
- Avey, J. B., Wernsing, T. S., and Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The journal of applied behavioral science*, 44(1), 48-70.
- Bao, Y., Chen, X., and Zhou, K. Z. (2012). External learning, market dynamics, and radical innovation: Evidence from China's high-tech firms. *Journal of Business Research*, 65(8), 1226-1233.
- Battistelli, A., Odoardi, C., Vandenberghe, C., Di Napoli, G., and Piccione, L. (2019). Information sharing and innovative work behavior: The role of work-based learning, challenging tasks, and organizational commitment. *Human Resource Development Quarterly*, 30(3), 361-381.
- Bauer, M. W. (2007, May). Introduction: Management reforms in international organizations. In *Management reforms in international organizations* (pp. 11-24). Nomos Verlagsgesellschaft mbH & Co. KG.
- Bauer, M.W. and Knill, C. (eds) (2007) *Management Reforms in International Organizations*, Baden-Baden: Nomos.

- Baughman, K., and Swing, R. L. (2001). Closing the loop: Assessment data for decision makers. *Proving and improving: Strategies for assessing the first college year*, 87-94.
- Becker, F. W., and Tews, M. J. (2016). Fun activities at work: do they matter to hospitality employees? *Journal of Human Resources in Hospitality & Tourism*, 15(3), 279-296.
- Birtch, T. A., Chiang, F. F., and Van Esch, E. (2016). A social exchange theory framework for understanding the job characteristics–job outcomes relationship: the mediating role of psychological contract fulfillment. *The international journal of human resource management*, 27(11), 1217-1236.
- Bolman, L. G., and Deal, T. E. (2000). Reframing organizations: Artistry, choice, and leadership. *National Association of Secondary School Principals. NASSP Bulletin*, 84(612), 88.
- Bouzari, M., and Karatepe, O. M. (2017). Test of a mediation model of psychological capital among hotel salespeople. *International Journal of Contemporary Hospitality Management*, 29(8), 2178-2197.
- Bunpin, J. J. D., Chapman, S., Blegen, M., and Spetz, J. (2016). Differences in innovative behavior among hospital-based registered nurses. *The Journal of Nursing Administration*, 46(3), 122-127.
- Carmeli, A., and Spreitzer, G. M. (2009). Trust, connectivity, and thriving: Implications for innovative behaviors at work. *The Journal of Creative Behavior*, 43(3), 169-191.
- Carver, C. S., and Scheier, M. F. (2002). The hopeful optimist. *Psychological Inquiry*, 13(4), 288-290.
- Çetin, F. (2011). The effects of the organizational psychological capital on the attitudes of commitment and satisfaction: A public sample in Turkey. *European Journal of Social Sciences*, 21(3), 373-380.

- Chan, S. C. (2010). Does workplace fun matter? Developing a useable typology of workplace fun in a qualitative study. *International Journal of Hospitality Management, 29*(4), 720-728.
- Chen, C. C., Khan, A., Hongsuchon, T., Ruangkanjanases, A., Chen, Y. T., Sivarak, O., and Chen, S. C. (2021). The role of corporate social responsibility and corporate image in times of crisis: The mediating role of customer trust. *International journal of environmental research and public health, 18*(16), 8275.
- Chen, M. Y. C., Wang, Y. S., and Sun, V. (2012). Intellectual capital and organizational commitment: Evidence from cultural creative industries in Taiwan. *Personnel Review, 41*(3), 321-339.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.
- Chin, W. W., and Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. *Statistical strategies for small sample research, 1*(1), 307-341.
- Chin, W. W., Thatcher, J. B., Wright, R. T., and Steel, D. (2013). Controlling for common method variance in PLS analysis: the measured latent marker variable approach. In *New perspectives in partial least squares and related methods* (pp. 231-239). Springer New York.
- Cole, E. R. (2009). Intersectionality and research in psychology. *American psychologist, 64*(3), 170.
- Comrey, A., and Lee, H. (1992). Interpretation and application of factor analytic results. *Comrey AL, Lee HB. A first course in factor analysis, 2, 1992.*
- Crossan, M. M., and Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of management studies, 47*(6), 1154-1191.

- Deluga, R. J. (1994). Supervisor trust building, leader-member exchange and organizational citizenship behaviour. *Journal of occupational and Organizational Psychology*, 67(4), 315-326.
- Donaldson, S. I., and Ko, I. (2010). Positive organizational psychology, behavior, and scholarship: A review of the emerging literature and evidence base. *The journal of positive psychology*, 5(3), 177-191.
- Fleming, P. (2005). Workers' playtime? Boundaries and cynicism in a "culture of fun" program. *The Journal of Applied Behavioral Science*, 41(3), 285-303.
- Fornell, C., and Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. In: Sage Publications Sage CA: Los Angeles, CA.
- Fritz, C., Lam, C. F., and Spreitzer, G. M. (2011). It's the little things that matter: An examination of knowledge workers' energy management. *Academy of Management Perspectives*, 25(3), 28-39.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., and Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The leadership quarterly*, 16(3), 343-372.
- Gashema, B., and Kadhafi, M. I. (2020). Advancing employee's innovative work behaviors in the workplace: The role of transformational leadership, positive psychological capital and effort-reward fairness. *Bussecon Review of Social Sciences* (2687-2285), 2(1), 13-26.
- Guan, Z., Hou, F., Li, B., Phang, C. W., and Chong, A. Y. L. (2022). What influences the purchase of virtual gifts in live streaming in China? A cultural context-sensitive model. *Information Systems Journal*, 32(3), 653-689.
- Gupta, M., and Shaheen, M. (2017). Impact of work engagement on turnover intention: moderation by psychological capital in India. *Business: Theory*

and Practice, 18, 136-143.

- Henseler, J., Ringle, C. M., and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Hsiao, C., Lee, Y. H., and Chen, W. J. (2015). The effect of servant leadership on customer value co-creation: A cross-level analysis of key mediating roles. *Tourism Management*, 49, 45-57.
- Hu, Y., Wu, X., Zong, Z., Xiao, Y., Maguire, P., Qu, F., Wei, J., and Wang, D. (2018). Authentic leadership and proactive behavior: the role of psychological capital and compassion at work. *Frontiers in Psychology*, 9, 2470.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- Ibrahim Alzamel, L. G., Abdullah, K. L., Chong, M. C., and Chua, Y. P. (2020). The quality of work life and turnover intentions among Malaysian nurses: the mediating role of organizational commitment. *Journal of the Egyptian Public Health Association*, 95(1), 1-8.
- Iqbal, A., Nazir, T., and Ahmad, M. S. (2022). Entrepreneurial leadership and employee innovative behavior: an examination through multiple theoretical lenses. *European Journal of Innovation Management*, 25(1), 173-190.
- Jafri, M. H. (2010). Organizational commitment and employee's innovative behavior: A study in retail sector. *Journal of Management Research*, 10(1), 62-68.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and organizational psychology*, 73(3), 287-302.

- Jung, H. S., and Yoon, H. H. (2015). The impact of employees' positive psychological capital on job satisfaction and organizational citizenship behaviors in the hotel. *International Journal of Contemporary Hospitality Management*, 27(6), 1135-1156.
- Karatepe, O. M., and Avci, T. (2017). The effects of psychological capital and work engagement on nurses' lateness attitude and turnover intentions. *Journal of management Development*, 36(8), 1029-1039.
- Karatepe, O. M., and Karadas, G. (2014). The effect of psychological capital on conflicts in the work–family interface, turnover and absence intentions. *International Journal of Hospitality Management*, 43, 132-143.
- Karatepe, O. M., and Karadas, G. (2015). Do psychological capital and work engagement foster frontline employees' satisfaction? A study in the hotel industry. *International Journal of Contemporary Hospitality Management*, 27(6), 1254-1278.
- Karl, K., and Peluchette, J. (2006). How does workplace fun impact employee perceptions of customer service quality? *Journal of Leadership & Organizational Studies*, 13(2), 2-13.
- Khan, A., Chen, C. C., Lu, K. H., Wibowo, A., Chen, S. C., and Ruangkanjanases, A. (2021). Supply chain ambidexterity and green SCM: moderating role of network capabilities. *Sustainability*, 13(11), 5974.
- Khan, A., Chen, C. C., Suanpong, K., Ruangkanjanases, A., Kittikowit, S., and Chen, S. C. (2021). The impact of CSR on sustainable innovation ambidexterity: The mediating role of sustainable supply chain management and second-order social capital. *Sustainability*, 13(21), 12160.
- Kim, M. J., Lee, C. K., and Bonn, M. (2017). Obtaining a better understanding about travel-related purchase intentions among senior users of mobile social network sites. *International Journal of Information Management*, 37(5), 484-

496.

- Ko, M. C. (2021). An examination of the links between organizational social capital and employee well-being: Focusing on the mediating role of quality of work life. *Review of Public Personnel Administration, 41*(1), 163-193.
- Kumar, D., Upadhyay, Y., Yadav, R., and Goyal, A. K. (2022). Psychological capital and innovative work behaviour: The role of mastery orientation and creative self-efficacy. *International Journal of Hospitality Management, 102*, 103157.
- Lai, J., Lui, S. S., and Tsang, E. W. (2016). Intrafirm knowledge transfer and employee innovative behavior: The role of total and balanced knowledge flows. *Journal of Product Innovation Management, 33*(1), 90-103.
- Lei, H., Leangkhamma, L., and Le, P. B. (2020). How transformational leadership facilitates innovation capability: the mediating role of employees' psychological capital. *Leadership & Organization Development Journal, 41*(4), 481-499.
- Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 23*(6), 695-706.
- Luthans, F., Avolio, B. J., Avey, J. B., and Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology, 60*(3), 541-572.
- Luthans, F., Avolio, B. J., Walumbwa, F. O., and Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and organization review, 1*(2), 249-271.
- Luthans, F., Luthans, K., and Luthans, B. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizon, 47*(1), 45-50.

- Luthans, F., Youssef, C. M., and Avolio, B. J. (2007). Psychological capital: Investing and developing positive organizational behavior. *Positive organizational behavior*, 1(2), 9-24.
- Luthans, F., and Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual review of organizational psychology and organizational behavior*, 4, 339-366.
- Luthans, K. W., Luthans, B. C., and Palmer, N. F. (2016). A positive approach to management education: The relationship between academic PsyCap and student engagement. *Journal of Management Development*, 35(9), 1098-1118.
- MacCallum, R. C., Widaman, K. F., Zhang, S., and Hong, S. (1999). Sample size in factor analysis. *Psychological methods*, 4(1), 84.
- Mathieu, J. E., and Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin*, 108(2), 171.
- McDowell, L. (2004). Work, workfare, work/life balance and an ethic of care. *Progress in Human Geography*, 28(2), 145-163.
- Meyer, J. P., Allen, N. J., and Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of applied psychology*, 78(4), 538.
- Mitchell, M. S., Cropanzano, R. S., and Quisenberry, D. M. (2012). Social exchange theory, exchange resources, and interpersonal relationships: A modest resolution of theoretical difficulties. In *Handbook of social resource theory* (pp. 99-118). Springer.
- Naz, S., Li, C., Nisar, Q. A., Khan, M. A. S., Ahmad, N., and Anwar, F. (2020). A study in the relationship between supportive work environment and employee retention: role of organizational commitment and person–organization fit as mediators. *Sage Open*, 10(2), 2158244020924694.

- Newman, A., Ucbasaran, D., Zhu, F., and Hirst, G. (2014). Psychological capital: A review and synthesis. *Journal of organizational behavior*, 35(S1), S120-S138.
- Nigah, N., Davis, A. J., and Hurrell, S. A. (2012). The impact of buddying on psychological capital and work engagement: An empirical study of socialization in the professional services sector. *Thunderbird international business review*, 54(6), 891-905.
- Owler, K., Morrison, R., and Plester, B. (2010). Does fun work? The complexity of promoting fun at work. *Journal of Management & Organization*, 16(3), 338-352.
- Paek, S., Schuckert, M., Kim, T. T., and Lee, G. (2015). Why is hospitality employees' psychological capital important? The effects of psychological capital on work engagement and employee morale. *International journal of hospitality management*, 50, 9-26.
- Patiar, A., and Wang, Y. (2016). The effects of transformational leadership and organizational commitment on hotel departmental performance. *International Journal of Contemporary Hospitality Management*, 28(3), 586-608.
- Petter, S., Straub, D., and Rai, A. (2007). Specifying formative constructs in information systems research. *MIS Quarterly*, 31(4), 623-656.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., and Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of management*, 26(3), 513-563.

- Fluegge-Woolf, E. R. (2014). Play hard, work hard: Fun at work and job performance. *Management Research Review*, 37(8), 682-705.
- Rego, P., Lopes, M. P., and Nascimento, J. L. (2016). Authentic leadership and organizational commitment: The mediating role of positive psychological capital. *Journal of Industrial Engineering and Management (JIEM)*, 9(1), 129-151.
- Robbins, S. P. (2005). Principles of organizational behavior. *Translated by Parsaeian A, Arabi M. Ninth printing. Publications Cultural Research Bureau in Tehran.*
- Roopa, S., and Rani, M. (2012). Questionnaire designing for a survey. *Journal of Indian Orthodontic Society*, 46(4_suppl1), 273-277.
- Rönkkö, M., and Ylitalo, J. (2011). PLS marker variable approach to diagnosing and controlling for method variance. *Thirty Second International Conference on Information Systems*, Shanghai 2011.
- Saks, A. M., and Gruman, J. A. (2011). Getting newcomers engaged: The role of socialization tactics. *Journal of managerial psychology*, 26(5), 383-402.
- Salancik, G. R., and Staw, B. M. (1982). *New directions in organizational behavior*. RE Krieger Publishing Company.
- Salas-Vallina, A., Pozo, M., and Fernandez-Guerrero, R. (2020). New times for HRM? Well-being oriented management (WOM), harmonious work passion and innovative work behavior. *Employee Relations: The International Journal*, 42(3), 561-581.
- Sameer, Y. M. (2018). Innovative behavior and psychological capital: Does positivity make any difference? *Journal of Economics & Management*, 32, 75-101.
- Santos, A. S., Reis Neto, M. T., and Verwaal, E. (2018). Does cultural capital

- matter for individual job performance? A large-scale survey of the impact of cultural, social and psychological capital on individual performance in Brazil. *International Journal of Productivity and Performance Management*, 67(8), 1352-1370.
- Simons, J. C., and Buitendach, J. H. (2013). Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. *SA Journal of Industrial Psychology*, 39(2), 1-12.
- Stajkovic, A. D., and Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological bulletin*, 124(2), 240.
- Sweetman, D., Luthans, F., Avey, J. B., and Luthans, B. C. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 28(1), 4-13.
- Tang, Y., Shao, Y. F., and Chen, Y. J. (2019). Assessing the mediation mechanism of job satisfaction and organizational commitment on innovative behavior: the perspective of psychological capital. *Frontiers in Psychology*, 10, 2699.
- Tang, Y., Shao, Y. F., Chen, Y. J., and Ma, Y. (2021). How to keep sustainable development between enterprises and employees? Evaluating the impact of person–organization fit and person–job fit on innovative behavior. *Frontiers in Psychology*, 12, 653534.
- Tao, Y. T., Lin, M. D., and Khan, A. (2022). The impact of CSR on green purchase intention: Empirical evidence from the green building Industries in Taiwan. *Frontiers in Psychology*, 13, 1055505.
- Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., and Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159-205.
- Tews, M. J., Michel, J. W., and Allen, D. G. (2014). Fun and friends: The impact of workplace fun and constituent attachment on turnover in a hospitality

context. *Human Relations*, 67(8), 923-946.

Tews, M. J., Michel, J. W., and Bartlett, A. (2012). The Fundamental Role of Workplace Fun in Applicant Attraction. *Journal of Leadership & Organizational Studies*, 19(1), 105-114.

Tews, M. J., Michel, J. W., and Noe, R. A. (2017). Does fun promote learning? The relationship between fun in the workplace and informal learning. *Journal of Vocational Behavior*, 98, 46-55.

Tews, M. J., and Noe, R. A. (2019). Does training have to be fun? A review and conceptual model of the role of fun in workplace training. *Human Resource Management Review*, 29(2), 226-238.

Thomas, K. W., and Velthouse, B. A. (1990). Cognitive elements of empowerment: An “interpretive” model of intrinsic task motivation. *Academy of management review*, 15(4), 666-681.

Tierney, P., and Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management journal*, 45(6), 1137-1148.

Tsaur, S. H., Hsu, F. S., and Lin, H. (2019). Workplace fun and work engagement in tourism and hospitality: The role of psychological capital. *International Journal of Hospitality Management*, 81, 131-140.

Vuong, B. N., Tushar, H., and Hossain, S. F. A. (2023). The effect of social support on job performance through organizational commitment and innovative work behavior: does innovative climate matter?. *Asia-Pacific Journal of Business Administration*, 15(5), 832-854.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., and Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of management*, 34(1), 89-126.

- Wei, Y., Liu, H., and Park, K. S. (2021). Examining the structural relationships among heritage proximity, perceived impacts, attitude and residents' support in intangible cultural heritage tourism. *Sustainability*, 13(15), 8358.
- Wetzels, M., Odekerken-Schröder, G., and Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS quarterly*, 177-195.
- Wiener, Y. (1982). Commitment in organizations: A normative view. *Academy of management review*, 7(3), 418-428.
- Wu, C. M., and Chen, T. J. (2018). Collective psychological capital: Linking shared leadership, organizational commitment, and creativity. *International journal of hospitality management*, 74, 75-84.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., and Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International journal of stress management*, 14(2), 121.
- Xu, H., Wang, Z., Lian, N., Khan, A., and Zhang, L. (2022). The impact of transformational leadership on organizational commitment and intention to stay: empirical evidence from China's performing arts industry. *Frontiers in Psychology*, 13, 874803.
- Xu, Y., Wang, Y., Khan, A., and Zhao, R. (2021). Consumer flow experience of senior citizens in using social media for online shopping. *Frontiers in psychology*, 12, 732104.
- Yan, D., Wen, F., Li, X., and Zhang, Y. (2020). The relationship between psychological capital and innovation behaviour in Chinese nurses. *Journal of nursing management*, 28(3), 471-479.
- Youssef, C. M., and Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience. *Journal of management*, 33(5), 774-800.

- Yuan, F., and Woodman, R. W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of management journal*, 53(2), 323-342.
- Zahoor, N., Donbesuur, F., Christofi, M., and Miri, D. (2022). Technological innovation and employee psychological well-being: The moderating role of employee learning orientation and perceived organizational support. *Technological Forecasting and Social Change*, 179, 121610.
- Zani, R. M., Merican, F. M. I., Saad, S. M., and Safin, S. Z. (2017). The influence of workplace fun on job outcomes: a study among different generations of academicians. *e-Academia Journal*, 6(1).
- Zhao, H., and Khan, A. (2021). The Students' Flow Experience With the Continuous Intention of Using Online English Platforms. *Frontiers in Psychology*, 12, 807084-807084.
- Zhou, J., Yang, Y., Qiu, X., Yang, X., Pan, H., Ban, B., Qiao, Z., Wang, L. and Wang, W. (2018). Serial multiple mediation of organizational commitment and job burnout in the relationship between psychological capital and anxiety in Chinese female nurses: A cross-sectional questionnaire survey. *International Journal of Nursing Studies*, 83, 75-82.