

Article

Effect of the Employees' Mental Toughness on Organizational Commitment and Job Satisfaction: Mediating Psychological Well-Being

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Abstract: This study aims to examine the impact of mental toughness of employees on their psychological well-being, job satisfaction, and organizational commitment. A research model based on structural equation modeling ' developed, and a survey was conducted with 534 office workers in Korean companies to gather the data. The findings indicate that mental toughness has a significant effect on psychological well-being and positively (+) affects organizational commitment and job satisfaction through psychological well-being. The study also reveals that mental toughness has a greater influence on organizational commitment than on job satisfaction. However, the positive effect of job satisfaction was found to increase when psychological well-being was mediated. Consequently, this study recommends that employees' mental toughness be managed effectively to improve their job satisfaction and organizational commitment, leading to enhanced job competency, and reduced turnover intention. These findings are of practical significance to organizational practitioners, as they underscore the importance of fostering mental toughness among employees to promote their well-being and commitment to their work.

Keywords: mental toughness; organizational commitment; job satisfaction; psychological well-being



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1. Introduction

In today's rapidly changing and unpredictable business environment, companies are pursuing multifaceted efforts to ensure their survival and prosperity. In this pursuit, various strategies are being explored to secure a company's competitive advantage, with growing interest in factors related to organizational commitment. Organizational commitment refers to employees' affection for the organization, their sense of responsibility to perform to the best of their abilities, and their intention to remain in the company (Meyer and Allen 1984; Loan 2020). The reason for this increased attention is that organizational commitment is considered an essential factor which not only affects individual performance but also has implications for turnover intention, employee participation, and organizational silence (Schaufeli and Bakker 2004; Guzeller and Celiker 2020; Panahi et al. 2012; Lam and Xu 2019).

Organizational commitment is considered a crucial factor that affects not only individual performance but also turnover intention, employee participation, and organizational silence and is therefore viewed as a key element in the survival and prosperity of organizations. As a result, companies are making extensive efforts to improve the affection, responsibility, and sustainability of their employee's organizational commitment. Numerous studies have identified factors that influence organizational commitment, such as personality characteristics, job satisfaction, and psychological well-being (Poulus et al. 2020; Mulki et al. 2008; Fitria and Linda 2020). Recently, mental toughness has emerged as a critical factor that enhances the members' work performance at organizations. Mental toughness is a personality trait that affects an individual's behavior in stress, pressure,

opportunities, and challenges and has been found to improve the work performance of employees (Jackman et al. 2020). Although mental toughness was previously studied primarily in sports and psychology, its significance in managing the mental factors associated with psychological stress and work challenges of organizational members has gained attention (Mojtahedi et al. 2021; Godlewski and Kline 2012).

According to Clough et al. (2002), mental toughness is composed of challenge, control, commitment, and confidence. Notably, confidence is a factor that was not present in previous studies. Beck et al. (2017) have defined mental toughness as a trait that becomes stronger with a higher tendency towards task goals. Previous studies have shown that individuals with high mental toughness, particularly with task–goal orientation, experience improved task performance (Kuan and Roy 2007; Álvarez et al. 2018). High mental toughness is also linked to achieving task and achievement goals, which in turn enables individuals to achieve a state of mind that allows for full immersion in work and optimal performance (Lin et al. 2017a, 2017b).

Personality traits, such as openness, emotional stability, resilience, consistency, receptivity, grit, hardness, and mental toughness, have been linked to job satisfaction and organizational commitment (Barrick and Mount 1991; Judge and Bono 2001; Tett et al. 1991). Moreover, mental toughness has been identified as a critical constituent concept for quantifying performance and is associated with higher levels of immersion and performance among employees (Gucciardi et al. 2015b). Individuals with high mental toughness are better equipped to handle new challenges or job demands by utilizing their mental toughness as a resource to respond to stress at work (Gucciardi et al. 2015a).

However, research on mental toughness in human resource management targeting business executives or organizational members is still lacking. Additionally, the importance of employee well-being, emotional labor, and stress management is becoming increasingly prominent in response to changes in the societal environment. Furthermore, as the need for innovation and challenges in the fast-changing business environment and global competition intensifies, business activities based on strong mental toughness, such as goal-oriented and dedicated organizational members, are becoming an important factor in human resource management. However, studies on the effects of mental toughness on personnel factors such as organizational commitment and job satisfaction among organizational members within a company are limited.

In addition, various studies have been conducted on job satisfaction and organizational commitment within the context of HRM in Korean companies. Many researchers have revealed that employees' perceptions of work–life balance, burnout, emotional labor, job security, career development, and learning organizational culture are important predictors of job satisfaction and organizational commitment (Park et al. 2011; Joo and Park 2010; Lim 2010; Jung and Kim 2006). Korean companies place considerable emphasis on employee dedication and loyalty to the organization and expect employees to prioritize the organization's goals over their own individual goals (Lee and Peterson 2000). In particular, factors such as hierarchical organizational culture, long working hours, high labor intensity, and rigid job ranks can amplify this culture, and issues such as work–life imbalance can lead to high levels of stress and burnout (Hong et al. 2016; Jung and Kim 2012).

From these perspectives, HRM practices that prioritize employee happiness, well-being, and welfare are becoming increasingly important. Liu et al. (2019) and Wang et al. (2021) reported that changes in HRM practices have an impact on employees' attitudes and behaviors. HRM practices such as education and development programs, performance evaluations, and compensation packages have an impact on employees' perceptions of job satisfaction and organizational commitment (Lim 2010). Recently, there has been a growing interest in the emotional and psychological aspects that influence job satisfaction, organizational commitment, and intention to leave (Yoon and Thye 2002), and Korean companies recognize the value of employees' resilience, mental health, patience, and psychological well-being (Lee et al. 2001) Such recognition is leading to the development of new HRM practices that prioritize employees' mental health and well-being, and

strategic HRM and employee well-being programs such as flexible work arrangements, mental health support, and career development opportunities can help improve employee organizational commitment, job satisfaction, and psychological well-being (Liu et al. 2019; Wang et al. 2021).

Therefore, this study defined the concept and constituent factors of mental toughness for members of the Korean company and empirically analyzed the relationship between organizational commitment and job satisfaction through psychological well-being. Finally, this article emphasizes the importance of the mental toughness of the members of the business organization and specifically presents how important it is to manage the emotional and psychological factors of members along with general talent management processes, such as evaluation, compensation, education, and training.

2. Literature Review

2.1. Concept and Characteristics of Mental Toughness

The concept of mental toughness has received significant attention in the fields of sports science and psychology. It refers to a personality trait that determines how an individual responds when exposed to stress, pressure, opportunities, and challenges. Mental toughness is a factor that influences an individual's behavior in various situations (Clough and Strycharczyk 2015). The term mental toughness was first coined by Jones et al. (2002) to describe the psychological characteristics of sports players related to their performance. He defined mental toughness as the ability to consistently demonstrate skills and talents, regardless of the competition situation. Since then, mental toughness has been defined by researchers in various fields (Jones et al. 2007; Clough et al. 2002).

For instance, Goldberg (1998) stated that mental toughness is a psychological trait that involves persistent effort and not giving up in the face of hardship, frustration, and failure. Bull et al. (2005) and Middleton et al. (2004) defined mental toughness as an effective response to external pressure, while Gucciardi et al. (2015a) characterized it as an ability to produce objective results that others can recognize, even in daily situations. Furthermore, mental toughness is the willingness to continue working towards a goal in a given environment and overcome any negative situations that arise (Jones et al. 2002).

In the field of general psychology, mental toughness is widely recognized as a psychological characteristic that enhances an individual's ability to tolerate and cope with failure. This characteristic is similar in nature to resilience and hardness, which are also recognized as psychological traits (Clough and Strycharczyk 2015). Resilience refers to an individual's capacity to adapt dynamically and overcome stress, challenging situations, and adversity while maintaining an appropriate level of self-control (Windle et al. 2011). On the other hand, toughness is a set of attitudes that enable an individual to engage in an active life under any stressful situation and to view change as an opportunity for growth and development.

Furthermore, mental toughness is closely related to several other concepts, including conscience, goal setting, achievement orientation, learned lethargy, self-efficacy, grit, growth, intrinsic motivation, persistence, and pride (Clough and Strycharczyk 2015). However, Clough et al. (2002) proposed a model of mental toughness based on Loehr's concept and defined it as a personality trait. They established the four components of mental toughness as the 4C model of control, commitment, challenge, and confidence, which are distinct but interrelated (Clough and Strycharczyk 2015).

In conclusion, mental toughness is an essential psychological characteristic that enhances an individual's ability to tolerate and cope with failure. It is a concept similar to resilience and hardness, and its components are interrelated in a 4C model of control, commitment, challenge, and confidence. Mental toughness is related to several other psychological concepts, including goal setting, self-efficacy, and persistence, and it plays a vital role in an individual's personal and professional growth.

The concept of mental toughness was initially introduced in the sports field, primarily for athletes. However, its significance has now expanded to the professional and

educational sectors (Clough and Strycharczyk 2015). St Clair-Thompson et al. (2015) demonstrated a connection between mental toughness and academic achievement, school attendance, classroom behavior, and friendship. Furthermore, Yorke (2006) highlighted that mental toughness in college students is an important factor in employment possibilities, which comprises various characteristics, such as individual traits, understanding, and operational abilities. As organizations prioritize performance, mental toughness has become an essential constituent concept for measuring areas related to performance (Gucciardi et al. 2015b).

According to Business Matters (2015), individuals with high levels of mental toughness possess confidence, drive, competitiveness, and ambition but are not aggressive or dominant. Such individuals are likely to rise to high-ranking positions. Additionally, Marchant et al. (2009) found that the higher the position in the organization, the higher the level of mental toughness. Senior managers exhibited a higher level of mental toughness than middle or beginner managers. Moreover, mental toughness is a factor that prevents stress and helps employees cope better with new challenges or job demands by using mental toughness as a resource to respond to work-related stress (Gucciardi et al. 2021). In an organization, mental toughness encompasses technical skills and interpersonal skills, intelligence, logical skills influenced by intuition, meaning-making, and emotional intelligence. Hence, it is vital for organizations to build these competencies and identify the constituent elements that constitute this concept (Ruparel 2020).

2.2. Mental Toughness and Psychological Well-Being

Psychological well-being refers to an individual's overall satisfaction with life and the ability to live effectively (Diener 1984). It involves a combination of feeling good and functioning well (Ryan and Deci 2001). Negative emotions and the persistence of such emotions can impair an individual's psychological well-being, particularly when they interfere with their ability to function effectively in their work or personal life (Huppert 2009). High levels of psychological well-being are associated with self-acceptance, positive interpersonal relationships, and the ability to control one's behavior independently. Such individuals are motivated to achieve their potential and have a sense of control and purpose in life, allowing them to choose and change their environment (Ryff 1989). Psychological well-being is relevant to various domains, such as work, education, and interpersonal relationships (Daniels and Harris 2000; Chow 2007; Jain et al. 2019), all of which contribute to desirable life outcomes. Previous research has suggested that mental toughness is related to psychological well-being (Lin et al. 2017a).

Gerber et al. (2013) investigated the relationship between mental toughness and perceived stress, depression, and life satisfaction. As high levels of stress can increase the risk of psychopathology and maladjustment, the promotion of positive adaptation through mental toughness is practical. Gucciardi and Jones (2012) found that mental toughness is positively related to life satisfaction and negatively related to attachment anxiety and avoidance. Given that both depression and stress are significant causes of sleep dissatisfaction (Riemann et al. 2020), sleep patterns in childhood can have a lasting effect on psychological well-being and function (Gregory and Sadeh 2012). Individuals with high mental toughness were found to be less aware of stress and showed low levels of depression (Benjamin and John 2021). Haghghi and Gerber (2019) explained that the link between mental toughness and sleep quality could be explained by psychopathological symptoms. Damodaran et al. (2017) revealed that mental toughness is an essential factor in improving life attitudes related to mental health, and Gerber et al. (2015) reported that mental toughness plays a role in alleviating burnout symptoms.

Previous studies on the psychological well-being of employees report that the psychological well-being of office workers increases the frequency of positive emotional experiences, increases work immersion, and increases work productivity (Winefield and Tiggemann 1990; Gilbreath and Benson 2004). On the other hand, Schütte et al. (2014) reported a study that if the level of psychological well-being is low because it does not

give meaning to work, the ability to perform work decreases and the overall satisfaction with life decreases. [Loon et al. \(2019\)](#) explained that a significant influence relationship was established in the study between psychological well-being and job satisfaction of members of the company. [Robertson and Cooper \(2010\)](#) studied the relationship between psychological well-being and job satisfaction, which also showed a positive correlation. [Tušl et al. \(2021\)](#) explained that the longer the duration of leisure satisfaction, the lower the job stress, and the higher the psychological well-being, through a study on leisure satisfaction, job stress, and psychological well-being. [Cho \(2021\)](#) reported the results of the study that workplace club activities have an influence on psychological well-being and job stress. [Kundi et al. \(2021\)](#) found that people with jobs have higher psychological well-being, are more satisfied with their lives, and have higher overall quality of life than those without jobs. Based on these previous studies, this study hypothesizes that the mental toughness of organizational members will have a positive effect on psychological well-being.

Hypothesis 1. *The mental toughness of organizational members will have a positive (+) effect on psychological well-being.*

2.3. Mental Toughness, Organizational Commitment, and Job Satisfaction

Organizational commitment refers to the degree to which members of an organization show loyalty, trust, and attachment to the organization and its goals ([Porter et al. 1974](#); [Karim and Rehman 2012](#)). This is a key factor that affects individual performance, turnover intention, employee engagement, and organizational silence ([Schaufeli and Bakker 2004](#); [Guzeller and Celiker 2020](#); [Panahi et al. 2012](#); [Lam and Xu 2019](#)). Organizational commitment also plays an important role in transforming employees' performance-enhancing efforts into a more effective and efficient state ([Crust et al. 2014](#)). Mental toughness is positively associated with organizational commitment ([Gerber et al. 2013](#); [Crust et al. 2014](#); [Cook et al. 2014](#)).

Employees with high mental toughness tend to feel greater organizational commitment due to their positive self-concept and ability to cope with stress and adversity in the enterprise ([Kobasa 1985](#); [Mojtahedi et al. 2021](#)). Employees with higher levels of mental strength tend to experience less stress and respond better to job needs to increase organizational adaptation. This eventually contributes to overall organizational commitment ([Gucciardi et al. 2021](#)). [Ali Ababneh \(2022\)](#) found that mental toughness and organizational commitment mediate human resource innovation activities, while [Crust and Clough \(2011\)](#) reported a significant relationship between mental toughness and organizational commitment. According to [Ruparel \(2020\)](#), mental toughness has argued that organizations remain positive about their situation and environment, show their willingness to achieve organizational goals to the best of their ability, and consequently strengthen organizational commitment. Based on these studies, this paper presents the following hypothesis:

Hypothesis 2. *The mental toughness of organizational members will have a positive (+) effect on organizational commitment.*

Job satisfaction refers to an individual's emotional response to various aspects of the job, including role, work environment, and relationships with colleagues ([Iaffaldano and Muchinsky 1985](#)). It is a complex structure that includes positive emotions such as attitudes, values, and beliefs about one's job as well as active attitudes. While [Lawler and Hall \(1970\)](#) defined job satisfaction as a positive emotional state that occurs when the reward received from the job is appropriate or exceeds expectations. [Clough et al. \(2002\)](#) found a positive relationship between mental toughness and job satisfaction and a negative relationship between mental toughness and job stress. [Burnett et al. \(2020\)](#) explained that mental toughness is negatively associated with fatigue and perceived stress and positively associated with job satisfaction. [Godlewski and Kline \(2012\)](#) also found that personal characteristics such as normative commitment, career aspirations, and mental toughness

affect work attitudes and turnover behavior. [St Clair-Thompson et al. \(2015\)](#) suggested that mental toughness can have a positive effect on organizational commitment and job satisfaction. Therefore, the present study proposes the following hypothesis:

Hypothesis 3. *The mental toughness of employees will have a positive effect on job satisfaction.*

2.4. Psychological Well-Being, Organizational Commitment, and Job Satisfaction

Previous research has demonstrated that high levels of psychological well-being led to increased job participation and performance, often supported by resources such as positive psychological capital. [Bygrave et al. \(2011\)](#) found that employees with high psychological well-being experienced high job satisfaction and job commitment. Additionally, [Brunetto et al. \(2012\)](#) and [Garg and Rastogi \(2009\)](#) reported a positive and significant relationship between psychological well-being and job commitment. [Kim \(2014\)](#) published the results of a study that revealed the positive effects of psychological well-being and organizational commitment on job satisfaction.

Moreover, prior studies have indicated that psychological well-being positively influences organizational commitment ([Jain et al. 2019](#); [Salimirad and Srimathi 2016](#); [Yalçın et al. 2021](#)). [Brunetto et al. \(2012\)](#) found that emotional intelligence, a component of psychological well-being, is positively related to job satisfaction, and [Sy et al. \(2006\)](#) reported that employee emotional intelligence is positively related to job satisfaction and performance. Finally, [Ilies et al. \(2010\)](#) explained that psychological well-being plays a mediating role between corporate workplace stressors and job satisfaction. Collectively, these findings indicate that psychological well-being is a significant factor that influences both organizational commitment and job satisfaction. Thus, this study formulates the following hypothesis, based on prior research:

Hypothesis 4. *The psychological well-being of organizational members will have a positive effect on organizational commitment.*

Hypothesis 5. *The psychological well-being of organizational members will have a positive effect on job satisfaction.*

Employees who exhibit high levels of job satisfaction and organizational commitment tend to collaborate effectively with their colleagues, support organizational change, and contribute to a positive organizational culture ([Warr 1990](#)). Research has also shown that job satisfaction and organizational commitment have significant effects on motivation, productivity, and overall well-being of individual employees ([Judge and Bono 2001](#)). While job satisfaction and organizational commitment are similar attitudes, job satisfaction pertains to an attitude towards an objective object such as job conditions, while organizational commitment is a general attitude towards an object ([Wiener 1982](#)).

According to [Shore and Martin \(1989\)](#), specific job attitudes, such as performance evaluation, have a more significant impact on job satisfaction than organizational commitment, and global organizational attitudes, such as turnover intention, have a more significant impact on future member behavior. [Mottaz \(1987\)](#) studied the mutual influence of job satisfaction and organizational commitment and discovered that job satisfaction has a more significant effect on organizational commitment than organizational commitment has on job satisfaction. Previous studies have also reported that job satisfaction has a positive effect on organizational commitment ([Ismail and Razak 2016](#); [Tarigan and Ariani 2015](#); [Tett and Meyer 1993](#); [Hancock et al. 2017](#); [Lambert et al. 2001](#); [Cahyadi et al. 2022](#)).

[Latif et al. \(2013\)](#) posited that the higher the job satisfaction, the more willing employees are to cooperate voluntarily to achieve organizational objectives. [Shore and Martin \(1989\)](#) revealed that job satisfaction in public institutions has a positive impact on organizational commitment and intention to remain in the organization, while [McNeese-Smith \(1996\)](#) reported that extrinsic job satisfaction and intrinsic job satisfaction in the service industry have a significant effect on organizational commitment. [Aydogdu and Asikgil \(2011\)](#)

investigated the relationship between job satisfaction, organizational commitment, and medical intention in a study of manufacturing workers and found that job satisfaction had a positive effect on organizational commitment, and turnover intention had a negative relationship with job satisfaction and organizational commitment. Taken together, these previous studies suggest that job satisfaction has a positive effect on organizational commitment. Based on this literature review, Hypothesis 6 is proposed in this study.

Hypothesis 6. *Job satisfaction of organizational members will have a positive effect on organizational commitment.*

3. Research Method

3.1. Research Model

This study aims to investigate the relationship between the psychological well-being of members and their job satisfaction and organizational commitment, by building upon theoretical considerations and previous research. To accomplish this goal, a research model based on the structural equation (see Figure 1) was designed. The purpose of this model is to explore the impact of mental toughness on job satisfaction and organizational commitment, as well as to confirm the role of psychological well-being as a mediator in this relationship.

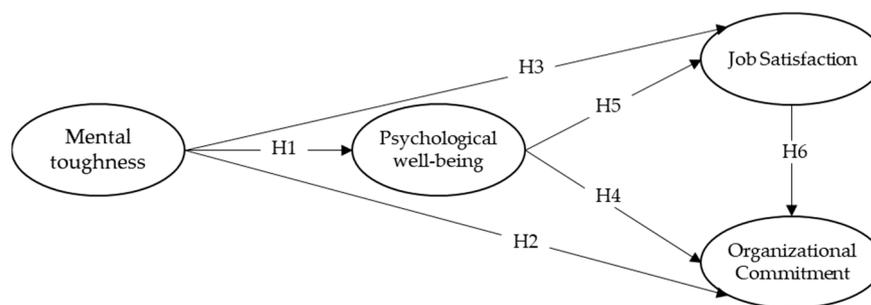


Figure 1. Research model.

3.2. Measurement Variable and Data Collection

In this study, a survey was conducted to collect data for the analysis of the proposed model. The survey questionnaire items, shown in Table 1, were compiled from previous studies, and the operational variables of the survey constituent factors were defined. The study defines “mental toughness” as a personality characteristic that determines an individual’s behavior in stress, pressure, opportunity, and challenging situations, which are often encountered in the organizational environment. Therefore, the variables for mental toughness were defined as factors influencing control of life and self-emotion, commitment to goals and achievements, learning and risk-oriented challenges, and confidence in one’s ability or interpersonal relationships. “Psychological well-being” was defined as a life with high psychological well-being that allows individuals to accept their overall life satisfaction, accept themselves as they are, maintain positive interpersonal relationships, and choose and change their surroundings based on the basis of well-being. The variables for psychological well-being were defined as influencing factors that are considered important for desirable life outcomes, including work, education, and interpersonal achievement.

The present study employed a survey measurement consisting of items designed to measure four key constructs: mental toughness, psychological well-being, job satisfaction, and organizational commitment. The mental toughness scale used in this study was the MTQ4Cs developed by Clough and Strycharczyk (2015), which is a shorter version of the MTQ48 comprising 24 items. Psychological well-being was assessed using a five-item measure, which was developed based on previous studies by Ryff (1989) and Burns and Machin (2009). Organizational commitment was measured using a four-item measure, which was based on previous studies by Meyer and Allen (1991) and Lee et al. (2001). Job

satisfaction was evaluated using a four-item measure based on previous research by [Brayfield and Rothe \(1951\)](#) and [Thompson and Phua \(2012\)](#). Following the administration of the survey, factor analysis was conducted to assess the construct validity of the measurement items.

The results of the factor analysis indicated that seven items related to mental toughness and two items related to psychological well-being had low factor loadings and were therefore excluded from the survey measurement. All of the items related to organizational commitment and job satisfaction were found to have acceptable levels of reliability and were retained for further analysis. Consequently, the final survey instrument included 17 items related to mental toughness, 3 items related to psychological well-being, 4 items related to job satisfaction, and 5 items related to organizational commitment, which were used in the subsequent structural equation modeling analysis.

The data collected were analyzed using SPSS 27.0 for demographic characteristics, descriptive statistics, and exploratory factor analysis. Confirmatory factor analysis, model verification, and path analysis based on a structural equation model were conducted using AMOS 27.0 for hypothesis path analysis.

Table 1. Variable definitions and measurement items.

Factors	Measurement Items	References
Mental toughness	<ul style="list-style-type: none"> - I tend to take the initiative and control it well. - I am generally calm under considerable stress. - Sometimes I cannot control my emotions (R). - I can control my emotions depending on the situation. - If I have something to do, I tend to do it right away without worrying. - I tend to believe that I can do the job I am given. - Usually, I concentrate for a long time. - I usually try to do my best in anything. - I am good at concentrating in any situation. - I like to set goals and achieve them. - I am generally convinced of my ability. - When I go to a place where people gather, I sometimes feel intimidated (R). - I do not hesitate to tell people what to do. - When others feel wrong, I am not afraid to argue with them. - I can take risks to achieve my goal. - I like to deviate from social practices and customs. - I generally enjoy new challenges. 	Clough and Strycharczyk (2015)
Psychological well-being	<ul style="list-style-type: none"> - I feel happy when I compare myself to friends and relatives. - I am satisfied that my life is well managed without personal financial problems - Looking back on my life, I am satisfied with the current results. 	Ryff (1989) , Burns and Machin (2009)
Organizational commitment	<ul style="list-style-type: none"> - I have a high sense of belonging to the company. - I am attached to my department or company. - Working in this organization is personally meaningful. - I feel that the problem with my department or company is my problem. 	Meyer and Allen (1991) , Lee et al. (2001)
Job satisfaction	<ul style="list-style-type: none"> - I am satisfied with what I am currently doing at the company. - I am enjoying my current job. - I feel rewarded for what I do now. - I want to continue what I do now. 	Brayfield and Rothe (1951) , Thompson and Phua (2012)

3.3. Demographic Information of the Data

In this study, a random sample of office workers in Korean manufacturing companies, which conducted mental strength coaching training for their members, was surveyed using an online questionnaire for a duration of four weeks from 15 December 2022. Out of 613 collected surveys, 534 were used for analysis, excluding 79 surveys that were deemed unfaithful based on the consistency of one-line responses and psychometric consent among non-intervention methods. A single-line response was defined as identical responses to

9 consecutive questions out of the 37 questions, and a lack of agreement/anti-consistency was classified as an unfaithful response when the correlation of individual responses between pairs of consent/anti-relations was less than 0.3 (DeSimone et al. 2018; Meade and Craig 2012).

Table 2 presents the demographic characteristics of the survey participants. The gender ratio was nearly equal, with 49.8% men and 50.2% women. The age distribution was 20.8% in their 20s, 30.3% in their 30s, 25.7% in their 40s, and 23.2% in their 50s and was symmetrically distributed between their 20s and 30s and 40s and 50s. The size of the firms was distributed as follows: 34.3% had less than 50 employees, 32.8% had more than 51 to 300 employees, and 32.9% had more than 300 employees. The educational background was distributed as follows: 10.7% had a high school diploma or lower, 15.2% had a junior college degree, 60.1% had a university degree, and 14% had a master's or doctorate degree. The participants worked in various industries, with 28.5% in manufacturing, 19.3% in services, 17.0% in construction/lease/distribution, 24.5% in professional groups, and 10.7% in other industries. For job types, office/management jobs were the most prevalent, accounting for 62.2%, followed by sales/marketing at 12.7%, research/development at 9.9%, production/technology at 9.9%, and other jobs at 5.2%. The positions were 9.4% for contract workers (non-regular workers), 51.5% for team members, 33.0% for middle managers, and 6.2% for senior managers, indicating a higher distribution of managers or higher than general companies. The section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

Table 2. Demographic information of survey participants.

	Section	Frequency	Ratio (%)
Gender	Male	266	49.8%
	Female	268	50.2%
Age	20~29	111	20.8%
	30~39	162	30.3%
	40~49	137	25.7%
	50s and above	124	23.2%
Education	High school	57	10.7%
	Junior college	81	15.2%
	University	321	60.1%
	Master's and doctorate	75	14 %
Firm size	Below 50 employees	183	34.3%
	50–300 employees	175	32.8%
	300–1000 employees	76	14.2%
	Above 1000	100	18.7%
Business industry	Manufacturing industry	152	28.5%
	Service industry	103	19.3%
	Construction/lease/distribution	91	17.0%
	Professionals	131	24.5%
	Others	57	10.7%
Job type	Office/management	332	62.2%
	Sales/marketing	68	12.7%
	Research/development	53	9.9%
	Production/technology	53	9.9%
	Others	28	5.2%
Job position	Contract (non-regular employees)	50	9.4%
	Team member	275	51.5%
	Middle manager	176	33.0%
	Senior manager	33	6.2%

4. Results

4.1. Results of Reliability and Validity Analysis

In this study, an assessment of the reliability of the measurement model and the degree of concentration was conducted, as shown in Table 3. The study involved a large number of observed variables, with 17 related to mental toughness, 3 to psychological well-being, 4 to job satisfaction, and 4 to organizational commitment. The large number of variables increases the likelihood of estimating many unknowns from a limited sample, which can lead to increased estimation errors and problems with the model fit (Bentler and Chou 1987). Therefore, the partial non-summarization method was applied to address this issue. In a previous study, the domain representative method was applied to mental toughness, which was presented in four multidimensional ways (Clough and Strycharczyk 2015). The confirmatory factor analysis results are presented in Table 3. The factor loading was good, ranging from 0.497 to 0.844, and the internal reliability was significant, with a composite reliability of 0.833 to 0.903. The t-value was 6.5 or higher, indicating statistical significance. The average variance extracted (AVE) value was 0.586 to 0.700, and the Cronbach's alpha value was 0.735 to 0.879, indicating strong concentration validity. The suitability of the structural equation model was analyzed, and the results showed that χ^2 (df) was 167.065, and χ^2 /degree of freedom was 1.989. The Goodness-of-Fit Index (GFI) value was 0.961, the Adjusted Goodness-of-Fit Index (AGFI) was 0.944, the Normal Fit Index (NFI) was 0.951, and the Root Mean Square Error of Approximation (RMSEA) was 0.043, all indicating significant statistical values.

Table 3. Results of reliability and convergent validity test.

Variables	Measurement Questions	Standard Loading	Standard Error	T Value (p)	CR	AVE	Cronbach α
Mental toughness	MT1	0.497					
	MT2	0.625	0.140	9.213 ***	0.847	0.586	0.869
	MT3	0.771	0.115	9.932 ***			
	MT4	0.571	0.115	8.793 ***			
Psychological well-being	WB1	0.708					
Psychological well-being	WB2	0.704	0.071	12.640 ***	0.833	0.625	0.735
	WB3	0.671	0.072	12.292 ***			
	Job satisfaction	JS1	0.784				
Job satisfaction	JS2	0.797	0.054	19.193 ***	0.903	0.700	0.879
	JS3	0.844	0.049	20.463 ***			
	JS4	0.800	0.047	19.300 ***			
	Organizational commitment	OC1	0.610				
Organizational commitment	OC2	0.774	0.087	13.817 ***	0.858	0.605	0.838
	OC3	0.829	0.086	14.396 ***			
	OC4	0.806	0.081	14.166 ***			

Measurement model fit: χ^2 (df) 167.065, χ^2 /degree of freedom 1.989, RMS 0.036, GFI 0.961, AGFI 0.944, NFI 0.951, TLI 0.968, CFI 0.975, RMSEA 0.043, *** $p < 0.001$.

The present study examined the discriminant validity of latent variables by analyzing the average variance extracted (AVE) value and correlation coefficient. The findings, as presented in Table 4, revealed that the AVE square root for each latent variable exceeded the correlation coefficients between them. This suggests that discriminant validity was established in the study.

Table 4. Correlation matrix and AVE.

	AVE	MT	WB	JS	OC
Mental toughness	0.586	0.766			
Psychological well-being	0.625	0.680 ***	0.791		
Job satisfaction	0.700	0.378 ***	0.381 ***	0.837	
Organizational commitment	0.605	0.5474 ***	0.516 ***	0.678 ***	0.778

Note: *** $p < 0.001$. The square root of AVE is shown in bold letters.

The Common Method Bias (CMB) error that can occur by measuring independent and dependent variables through the same questionnaire cannot be completely solved by a dictionary method. Therefore, in this study, four independent variables, parameters, and dependent variables used in the analysis were inserted to perform unrotated factor analysis (Podsakoff et al. 2003). As a result, six factors with explanatory power (eigenvalue > 1.00) were extracted, and the cumulative variance value of these factors accounted for 63.609%. Among them, the variance value of the factor with the largest explanatory power was 30.321%, and the remaining five factors accounted for 33.288% of the total variance, so it was confirmed that there is no single general factor that causes the problem of the Common Method Bias.

4.2. Results of Structural Equation Model Analysis

The suitability of the structural equation model was evaluated, and the results are presented in Table 5. The value of $\chi^2(p)$ was 167.165, and the ratio of χ^2 to the degree of freedom was 1.989. The GFI (Goodness-of-Fit Index) was 0.961, and the NFI (Normal Fit Index) was 0.951, both of which were above 0.9. The RMS (Root Mean Square Residual) was 0.036, the AGFI (Adjusted Goodness-of-Fit Index) was 0.944, and the RMSEA (Root Mean Square Error of Approval) was 0.043, indicating an excellent fit and composition values. The CFI (Comparative Fit Index) was 0.975, which represents the explanatory power of the model and was not affected by the sample, while the TLI (Tucker–Lewis Index) was 0.968, which judges the explanatory power of the structural model, indicating that the basic model was very suitable.

The hypothesis was verified through path analysis of the structural equation model, and all six hypotheses were adopted to investigate the effect of total mental toughness on job satisfaction and organizational commitment through psychological well-being. The verification result of <Hypothesis 1> revealed that mental toughness had a positive effect (8.079, $p < 0.001$) with 0.680 for psychological well-being and was adopted. The verification result of <Hypothesis 2> was adopted as it was found that mental toughness had a positive effect (3.468, $p < 0.001$) with a path coefficient of 0.248 for organizational commitment. The verification result of <Hypothesis 3> revealed that mental toughness had a positive effect (2.603, $p < 0.01$) with a path coefficient of 0.221 for job satisfaction. Furthermore, psychological well-being had a positive effect (2.108, $p < 0.05$) with 0.145 for organizational commitment, indicating that <Hypothesis 4> was adopted. The verification result of <Hypothesis 5> showed that psychological well-being had a positive effect (2.753, $p < 0.01$) at 0.231 on job satisfaction and was adopted. Finally, the verification result of <Hypothesis 6> showed that job satisfaction had a positive effect (10.929, $p < 0.001$) as 0.528 for organizational commitment, indicating that there was a positive effect. Thus, the study confirmed that the higher the mental toughness, the higher the level of job satisfaction and organizational commitment (see Table 5).

Table 5. Results of the hypothesis test.

	Hypothesis (Path)	SRW ¹	t Value	Support (Y/N)
H1	Mental toughness → Psychological well-being	0.680	8.079 ***	Accepted
H2	Mental toughness → Organizational commitment	0.248	3.468 ***	Accepted
H3	Mental toughness → Job satisfaction	0.221	2.603 **	Accepted
H4	Psychological well-being → Organizational commitment	0.145	2.108 *	Accepted
H5	Psychological well-being → Job satisfaction	0.231	2.753 **	Accepted
H6	Job satisfaction → Organizational commitment	0.528	10.929 ***	Accepted

¹ Standardized regression weights. Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.3. Results of the Direct, Indirect, and Total Effects Analysis

According to the results presented in Table 6, the effect of mental toughness on job satisfaction and organizational commitment through psychological well-being was found to be significant. This indicates that mental toughness can increase job satisfaction and organizational commitment of members by enhancing their psychological well-being. The mediating effect between exogenous and endogenous variables was also examined, revealing that psychological well-being acted as a partial mediator in the relationship between mental toughness and job satisfaction, as well as in the relationship between mental toughness and organizational commitment.

Table 6. Total effect, direct effect, and indirect effect.

Hypothesis (Path)	Direct Effect	Indirect Effect	Total Effect
Mental toughness → Psychological well-being	0.680 ***		0.680 ***
Mental toughness → Psychological well-being → Organizational commitment	0.248 ***	0.299 **	0.547 **
Mental toughness → Psychological well-being → Job satisfaction	0.221 **	0.157 *	0.378 **
Psychological well-being → Job satisfaction → Organizational commitment	0.145 *	0.122 *	0.267 *
Psychological well-being → Job satisfaction	0.231 **		0.231 **
Job satisfaction → Organizational commitment	0.528 ***		0.528 ***

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

5. Discussion

This study investigates the impact of mental strength on organizational commitment and job satisfaction of organizational members and the impact through psychological well-being. As a result of the analysis, it was found that mental personality has a positive effect on psychological well-being, organizational commitment, and job satisfaction. The study concludes that the increased mental toughness of organizational members, including control, commitment, challenge, and confidence, enhances psychological well-being, which in turn improves the effectiveness of organizational commitment. In addition, it has been observed that improving mental toughness can increase job satisfaction and improve job performance. There are three important results in this study.

First, this study confirms that a high level of mental toughness as a personality trait is related to organizational commitment and job satisfaction among members (Gucciardi et al. 2015b). These results are consistent with previous studies that demonstrated the importance of individual personality traits in influencing members' job satisfaction and organizational commitment. Therefore, mental toughness has been studied in terms of life and individual behavioral characteristics as an individual characteristic factor, and there is a limitation that the relationship with organizational activities has not been highlighted. However, this study suggests that it is a factor that should be considered to strengthen the job satisfaction and organizational commitment of members in the personnel management process within the organization.

Second, this study found that mental strength has a significant impact on members' psychological well-being, which has a positive effect on organizational commitment and job satisfaction (Meyer and Herscovitch 2001; Kahn 1990; Wright and Bonett 2007). In the

end, it can be a factor that improves the psychological well-being of members, reducing the stress of members, and affecting mental strength in strengthening their stable job satisfaction and organizational commitment. Previously, most studies were conducted on psychological well-being, job satisfaction, and organizational commitment (Ilies et al. 2010; Loon et al. 2019; Robertson and Cooper 2010), but this study newly presents a relationship in which mental strength affects job satisfaction and organizational commitment through psychological well-being.

Finally, this study found that mental toughness has a higher importance on organizational commitment than job satisfaction through psychological well-being (Wright and Cropanzano 2000). Development and acquisition of mental toughness also affect the nature of job satisfaction linked to work performance or reward, but it can be seen as a more effective factor in driving organizational commitment by enhancing individual behavior and awareness. In the end, as Gilbreath and Benson (2004) argued, mental strength is a factor that stimulates members' intrinsic motivation for psychological well-being, as previous studies have shown that intrinsic motivation has a greater impact on job satisfaction.

6. Conclusions

6.1. Research Implications

The current research emphasizes the importance of improving the mental toughness of individuals in business organizations and conducts an empirical analysis to investigate the significance of organizational commitment and job satisfaction. Therefore, this study has academic significance in conceptualizing the individual characteristic factor of mental toughness, which was previously addressed in domains, such as sports, art, and psychology, for members of business administration and empirically revealing the influential relationship between these factors. In today's environment, managing the mental aspects of business organization members, including emotional labor, mental stress, and work-life balance, is becoming increasingly important. Therefore, it is necessary to consider both tangible and intangible factors, such as compensation and promotion, as well as emotion, personal characteristics, and psychological factors in performance evaluations.

This study also suggests the importance of an emotional management system for corporate members through factors such as mental toughness and psychological well-being. Based on the results of the research, several practical implications can be presented. First, identifying the characteristics and level of mental toughness of individual members of the organization can be used as a major decision-making criterion for selecting, moving, promoting, and training members. The personality characteristic factor items can be added to the job aptitude test when hiring employees to select suitable personnel for the job or organizational characteristics. This approach can contribute to the productivity of the organization and reduce the turnover rate by improving job satisfaction and organizational commitment.

Second, measures should be prepared to increase the mental toughness and psychological well-being of existing employees. Many companies are facing a difficult situation in terms of human resource management due to the increasing turnover rate of employees. Therefore, it is necessary to prepare educational training and institutional involvement devices that can increase mental toughness and psychological well-being for incumbent people. By analyzing individual mental toughness, the coaching effect on existing employees can be increased and applied to job rearrangement. Variables, such as mental toughness, psychological well-being, job satisfaction, and organizational commitment, can be considered as qualitative measurement tools for long-term plans, such as organizational performance improvement or organizational culture development.

In particular, workers in Korean companies experience high levels of stress and burnout due to factors, such as long working hours, high work performance pressure, and vertical organizational culture. As individual mental toughness and psychological well-being levels can lead to higher levels of job satisfaction and organizational commitment, managing members' mental and emotional well-being at the organizational level

is crucial. HRM practices that prioritize employee happiness and well-being can help alleviate these issues.

6.2. Research Limitations and Future Plans

The study discussed in this paper has important implications and significance; however, there are several research limitations that should be considered. The first limitation is that the study exclusively focused on members of Korean companies, which limits the generalizability of the research findings across different regions. Future studies should expand the scope of research to include members of various countries on different continents and conduct comparative analyses by industry, region, and country to reveal the subdivision and specificity of mental toughness research in business administration. Additionally, future studies should explore mental toughness between sexes, industries, jobs, and ages.

The second limitation is related to the design of the variable definitions and questionnaires, which were based on previous studies related to mental toughness in various occupations. However, mental toughness within a business organization may have different characteristics from other general organizations. To overcome this limitation, future research should consider mental factors characterized in personnel organizational research through qualitative research on the concept and constituent factors of mental toughness reflecting the occupational characteristics of corporate members.

Lastly, this study did not fully consider the detailed characteristics of control, commitment, challenge, and confidence, which are constituent factors of the independent variable, mental toughness. As mental toughness is evaluated as an individual characteristic factor, the composition system of detailed factors will differ for each individual, and strengths will also vary. Therefore, future studies should expand the influence relationship of mental toughness through the diversification of detailed constituent factors of mental toughness and mediating and dependent variables. This will provide more specific and detailed research results on mental toughness factors, which will be useful for mental toughness management or coaching.

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