

# Psychological capital: a literature review and research trends

Thanh D. Nguyen

*Faculty of Management Information Systems, Ho Chi Minh University of Banking,  
Ho Chi Minh City, Vietnam*

Thi H. Cao

*Saigon Technology University, Ho Chi Minh City, Vietnam*

Tuan M. Nguyen

*Ho Chi Minh City University of Technology, VNU-HCM,  
Ho Chi Minh City, Vietnam, and*

Tuan T. Nguyen

*Ho Chi Minh University of Banking, Ho Chi Minh City, Vietnam*

## Abstract

**Purpose** – This literature review aims to explore the various aspects of psychological capital (PsyCap), including its theoretical foundations, measurement methods, and the factors directly associated with PsyCap.

**Design/methodology/approach** – The approach employed in this study is scientific document synthesis, with a specific emphasis on scholarly articles published between 2001 and 2023. The selection of articles is limited to those published in internationally renowned journals that are indexed by reputable databases, including ISI (WoS) and SJR (Scopus).

**Findings** – Psychological capital is closely linked to other concepts at different levels. Scholars are investigating various factors associated with PsyCap, including health, project success, service marketing, banking services. It is important to note that different research areas have varying conceptualizations and scales when it comes to PsyCap.

**Originality/value** – This literature review of related studies reveals a growing global interest among researchers in the concept of positive psychological capital. The research results have shown significant interest in the items related to PsyCap, and the factors directly associated with it, including antecedents, mediators, moderators, and outcomes.

**Keywords** Measure, Multidimensional, Performance, Psychological capital (*PsyCap*)

**Paper type** Literature review

## 1. Introduction

The subject of tangible capital has received considerable attention within the realm of economic development, attracting interest from both professionals and academia alike. In the context of limited economic resources, managers are becoming more aware of the importance of not only tangible capital, but also various forms of intangible capital such as human capital, social capital, and psychological capital (Newman *et al.*, 2014). Positive psychological capital, commonly referred

## JEL Classification — D23, E24, G32, L20, J24

© Thanh D. Nguyen, Thi H. Cao, Tuan M. Nguyen and Tuan T. Nguyen. Published in *Asian Journal of Economics and Banking*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

**Erratum:** It has come to the attention of the publisher that the article, Nguyen, T.D., Cao, T.H., Nguyen, T.M. and Nguyen, T.T. (2024), “Psychological capital: a literature review and research trends”, *Asian Journal of Economics and Banking*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/AJEB-08-2023-0076> failed to include the JEL codes, these have now been added. The publisher sincerely apologises for this error and for any inconvenience caused.



to as *PsyCap*, is a concept that falls under the umbrella of extended capital structures, specifically the fourth generation. This framework encompasses four distinct types of capital, namely economic capital, human capital, social capital, and positive psychological capital (Luthans *et al.*, 2004). Moreover, psychological capital exhibits interconnections with different concepts within the field of behavioral science, such as attitude and behavior, operating at different levels. Resource-based theories serve as the fundamental underpinning for a multitude of studies examining the competitive advantage of organizations. Luthans *et al.* (2004) and Luthans and Youssef (2004, 2007) have developed a framework known as positive psychological capital, which draws upon the principles of positive psychology (Diener, 2003), positive organizational wisdom (Cameron *et al.*, 2003), and positive organizational behavior (Luthans, 2002; Wright, 2003; Kidron and Peretz, 2024). This framework serves as a means to evaluate an individual's psychological capacity. The aforementioned framework encompasses four primary psychological states, namely confidence, hope, optimism, and resilience (Luthans *et al.*, 2004; Luthans and Youssef, 2004, 2007; Avey *et al.*, 2023). In recent times, there has been a notable surge in global research efforts directed toward the exploration of psychological capital. This has resulted in a multitude of studies that primarily concentrate on analyzing individual-level factors (e.g. Avey *et al.*, 2009; McKenny *et al.*, 2013; Bergheim *et al.*, 2015; Salanova *et al.*, 2021; Hartmann *et al.*, 2020). Furthermore, scholars have conducted investigations on psychological capital within the context of teams (e.g. Walumbwa *et al.*, 2010, 2011; Uen *et al.*, 2021), and organizations (e.g. Rego *et al.*, 2010; Alkire and Avey, 2013; Tefera and Hunsaker, 2021; Wang *et al.*, 2024). It is worth noting that each author employs a unique methodology (such as individual, team, and organizational) that is contingent upon the characteristics of psychological capital. Notwithstanding the increasing focus on the subject, the notion of positive psychological capital remains relatively new in Vietnam, and there is a dearth of research pertaining to it, save for the study conducted by Nguyen and Nguyen (2012). Therefore, it is imperative to engage in comprehensive research on the concepts of psychological capital and its related matters.

## 2. Method

The primary objective of this study is to investigate the fundamental theories and conceptual underpinnings of psychological capital, while also integrating the notions of positive psychological capital and its associated research. Moreover, the study presents a comprehensive overview of the measures and scales employed in the evaluation of psychological capital, while also emphasizing potential directions for future research in this particular domain. The scope of the research encompasses the fields of psychological science, behavioral science, and organizational behavior. The primary approach employed in this study is scientific document synthesis, with a specific emphasis on scholarly articles published between 2001 and 2023. The selection of articles is limited to those published in internationally renowned journals that are indexed by reputable databases, including ISI (WoS – Web of Science) and SJR (Scopus). For collecting articles of *PsyCap*, authors used keywords, specifically, these terms of “positive psychological capital”; “*PsyCap*” (shorten for positive psychological capital); “*antecedent*”; “*mediator*”; “*moderator*”; “*outcome*”; “*individual*”; “*team*”; “*organization*”; and “*PCQ*” (shorten for the questionnaire of positive psychological capital) had been searched in the international scientific database.

Furthermore, the study engages in the examination, juxtaposition, interpretation, and assessment of matters about psychological capital. The results of this study offer valuable insights for managers seeking a thorough comprehension of extended capital structures, specifically focusing on psychological capital. These findings can aid in the development of strategies aimed at maintaining and improving positive psychological capital at the individual, team, and organizational levels. In addition, this study serves to ensure that researchers remain informed about the most recent developments in pertinent scientific literature, thereby providing a comprehensive understanding of psychological capital.

### 3. Literature review

#### 3.1 Underlying theories of psychological capital

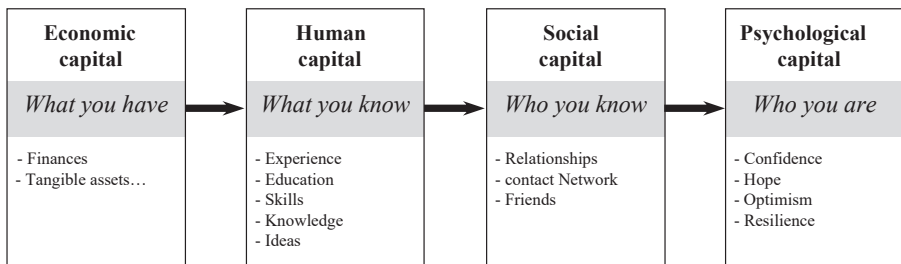
Since the emergence of positive psychology, scholars such as Seligman and Csikszentmihalyi (2000) as well as Diener (2003) have shown considerable interest in this area. As a result, researchers have devoted significant attention to the study of positive psychology, exploring it from both theoretical and practical standpoints. Significantly, two specific research directions within the field of positive psychology have attracted considerable attention from scholars, particularly about organizations: (1) Positive Organizational Scholarship (POS), as introduced by Cameron *et al.* (2003), investigates the favorable characteristics of organizations that bolster their capacity to operate effectively in the face of adversity; (2) Positive Organizational Behavior (POB), as conceptualized by Wright (2003), is a framework that centers on the evaluation of positive psychological states that have an impact on employee attitudes, behavior, and overall effectiveness.

Based on the utilization of positive psychology constructs and empirical research, Luthans *et al.* (2004) and Luthans and Youssef (2004, 2007), Avey *et al.* (2022) have identified four psychological resources that are most congruent with the scientific criteria of Positive Organizational Behavior (POB), including confidence, hope, optimism, and resilience. The resources referred to as psychological capital or *PsyCap* are of great importance in comprehending positive organizational behavior.

#### 3.2 Concepts of psychological capital

While economic capital, which includes financial and tangible assets, has received considerable attention, managers are now acknowledging the importance of intangible factors, specifically human capital (Luthans *et al.*, 2004). Aligning human capital with the development strategy of an enterprise enhances efficiency (Harter *et al.*, 2002). Social capital refers to the connections and networks of individuals (Luthans *et al.*, 2004). Meanwhile, Luthans and Youssef (2004, 2007) argue that psychological capital, as depicted in Figure 1 and subsequent steps in the capital structure, defines an individual's essence rather than their possessions, knowledge, or social connections.

Psychological capital is differentiated from other forms of capital, including human capital and social capital. Human capital refers to an individual's knowledge and skills, whereas social capital pertains to an individual's network and relationships. Positive psychological capital is associated with one's current identity and potential for personal growth (Luthans and Youssef, 2004, 2007). Positive psychological capital includes confidence, hope, optimism, and resilience (Luthans and Youssef, 2007; Avey *et al.*, 2010, 2023). This section offers comprehensive explanations of the concepts associated with positive psychological capital.



**Figure 1.**  
Structure of expanded capital types

**Source(s):** Luthans, Luthans and Luthans (2004)

*Confidence* is the belief an individual has in their ability to motivate themselves, perceive available resources, and take necessary actions to accomplish a specific task within a given context (Luthans *et al.*, 2004). Confidence refers to the belief in one's ability to effectively utilize cognitive resources to achieve desired outcomes (Luthans and Youssef, 2004, 2007).

*Hope* is a constructive and motivational emotional state that drives individuals to strive for success, it encompasses the utilization of focused energy and the development of strategies to achieve specific goals (Luthans *et al.*, 2004). Hope includes both the desire and the ability to achieve particular human objectives (Luthans and Youssef, 2004, 2007).

*Optimism* is rooted in the theory of attribution and involves the interpretation of positive and negative events regularly, it tends to perceive negative events as transient occurrences, such as feeling tired in a particular moment (Seligman and Csikszentmihalyi, 2000). Optimism can be defined as the tendency to attribute positive internal events to permanent and common causes while attributing negative external events to temporary and specific circumstances (Luthans and Youssef, 2004, 2007).

*Resilience* is a highly regarded and significant human attribute that enhances the capacity of individuals and society to recover from adversity and return to a state of normalcy (Luthans *et al.*, 2004). Resilience refers to the capacity to recover from setbacks, adversity, and transformations, resulting in personal growth (Luthans and Youssef, 2004, 2007; Avey *et al.*, 2023).

Previous research conducted prior to the development of the psychological capital scale focused on variables such as individual differences and positive core values, which encompass the five major personality traits (Luthans *et al.*, 2007; Avey *et al.*, 2010). Positive psychological capital naturally evolves and develops continuously across different psychological states (Luthans *et al.*, 2007; Luthans and Youssef, 2017; Avey *et al.*, 2023). Numerous studies have examined the formation of positive psychological capital (e.g. Demerouti *et al.*, 2011; Peterson *et al.*, 2011). Research on psychological capital typically focuses on key concepts like confidence, hope, optimism, and resilience. However, there is also considerable discussion on other related concepts included in the psychological capital scale, such as humor, gratitude, and forgiveness (Luthans and Youssef, 2007; Luthans *et al.*, 2008a). While these approaches appear reasonable, they may not be adequate on their own for testing theories in practical settings (Dawkins *et al.*, 2013).

The management of psychological capital presents various complexities and obstacles. Luthans and Youssef (2004) suggested that the most effective way to enhance employee confidence is by offering opportunities for them to achieve success. Practical experiences significantly contribute to individuals' self-confidence and task performance in the workplace. To foster enduring self-confidence, individuals need to actively seek out challenges and strive to accomplish specific objectives. Participating in practical training courses can enhance employees' self-assurance in their everyday tasks.

### 3.3 Related works

Positive psychology has gained attention from researchers in different fields. This topic has been examined in the field of organizational behavior, specifically about attitudes (e.g. Avey *et al.*, 2011; Giltrow, 2015; Alessandri *et al.*, 2018; Miao *et al.*, 2021), and behavior (e.g. Alkire and Avey, 2013; Youssef and Luthans, 2013; Paterson *et al.*, 2014; Avey *et al.*, 2022). Previous research has examined the application of positive psychology in the context of projects (e.g. Natovich *et al.*, 2013; Harms *et al.*, 2017), service marketing (e.g. Memili *et al.*, 2014; Friend *et al.*, 2016), banking services (e.g. Ziyae *et al.*, 2015; Khalid *et al.*, 2020; Santos and Ponchio, 2021) and intellectual capital (e.g. Nahapiet and Ghoshal, 1998; Han and Li, 2015; Asare *et al.*, 2023). Table 2 presents comprehensive data on various studies pertaining to psychological capital.

Psychological capital is often considered an independent variable in research studies, affecting dependent factors like innovation, service quality, and perception. *PsyCap* is

regarded as a mediate variable in certain research models (e.g. Luthans *et al.*, 2008a; Tang *et al.*, 2019). Besides, some studies have examined psychological capital as the dependent variable (e.g. Harms and Luthans, 2012; Harms *et al.*, 2017).

*3.3.1 Antecedents of psychological capital.* Psychological capital is influenced by both external and internal factors in individuals (Newman *et al.*, 2014a, b). The workplace is a favorable setting for cultivating employees' psychological capital, which includes hope, personal goal attainment, and resources for personal growth. This helps employees regain their morale following setbacks (Luthans *et al.*, 2008a). Besides, Luthans *et al.* (2008a) discovered that psychological capital acts as a mediator in the connection between organizational support and individual job performance.

Additionally, individuals experiencing high levels of stress in their work environments and work-family conflicts tend to have lower levels of psychological capital in comparison to individuals who have more experience and lower levels of stress (Newman *et al.*, 2014a, b). On the other hand, Epitropaki (2013), Jang (2022) have demonstrated that uncertainty is associated with a decrease in psychological capital, which in turn predicts individual stress across different levels. Previous research has examined how positive psychological capital contributes to the relationship between authentic leader behavior and job performance, both at the individual and team levels (e.g. Gooty *et al.*, 2009; Rego *et al.*, 2010; Walumbwa *et al.*, 2010, 2011; Uen *et al.*, 2021). Otherwise, McMurray *et al.* (2010), Shie and Chang (2022), Yuwono *et al.* (2024) discovered that psychological capital acts as a mediator between transformational leadership and both employee performance and organizational behavior at the individual level. Rego *et al.* (2010) found a mediated relationship between authentic leaders and creative workers via psychological capital. Walumbwa *et al.* (2010) found that the team's collective psychological capital serves as a mediator between authentic leadership, employee performance, and organizational behavior. Table 1 summarizes the prefixes of psychological capital derived from pertinent studies.

*3.3.2 Moderators of psychological capital.* Psychological capital has a stronger association with job performance in the service industry than in the manufacturing industry (Avey *et al.*, 2008). Service acts as a moderator in the relationship between psychological capital and job performance at the individual level (Walumbwa *et al.*, 2010; Siyal *et al.*, 2023). This relationship is more significant when the service environment is positive. Norman *et al.* (2010) posited that organizational identity plays a regulatory role in the connection between individual psychological capital and organizational behavior.

Antecedent	PsyCap	Mediator	Moderator	Outcome
- Awareness	- Confidence	- Empowerment	- Cohesion	- Attitude
- Satisfaction	- Hope	- Commitment	- Behavior	- Behavior
- Positive psychology	- Optimistic	- Team performance	- integration	- Job performance
- Stress	- Resilience	- Communication	- Stress	- Financial performance
- Confliction			- Leadership psychology	- performance
- Ethics			- Team value	- Satisfaction
- Leadership			- Organizational identity	- Innovation
- Organizational support			- Service marketing	- Service quality
- Organizational politics				- Project success
- Human capital				- Knowledge management
- Social capital				- Entrepreneur

**Table 1.** Psychological capital and concepts related to psychological capital

**Source(s):** Compiled by author

Stress diminishes the influence of psychological capital on older adults in comparison to younger adults, at the team level (Baron *et al.*, 2013). Psychological capital acts as a moderating variable at the individual level, examining factors that influence work performance. Roberts *et al.* (2011), Jang (2022) found that psychological capital acts as a moderator in the relationship between stress and attitude. This moderation effect is weaker among individuals with higher levels of positive psychological capital. Abbas *et al.* (2012) found that organizational politics has a negative association with efficiency and job satisfaction. However, this association is less pronounced among individuals who possess positive psychological capital.

*3.3.3 Outcomes of psychological capital.* 3.3.3.1 Psychological capital and attitude. Several studies have investigated the correlation between psychological capital and employees' attitudes, including organizational commitment and job satisfaction (e.g. Avey *et al.*, 2011; Mustafa *et al.*, 2016; Przepiorka, 2017; Tang *et al.*, 2019; Tefera and Hunsaker, 2021; Doci *et al.*, 2023). Positive psychological capital has a significant effect on employees' long-term commitment to their tasks in the organization (Luthans and Jensen, 2005). Individuals with high psychological capital demonstrate optimistic outlooks for the future and possess strong self-assurance in confronting work-related challenges (Newman *et al.*, 2014a, b). Previous studies have investigated the impact of psychological capital on employees' attitudes toward disengagement or intention to quit (e.g. Avey *et al.*, 2008, 2011; Avey *et al.*, 2009).

Psychological capital has a significant impact on employees' behaviors in the workplace. Positive emotions, particularly among individuals with high psychological capital in problem-solving, are associated with positive behaviors (Avey *et al.*, 2011). Research has shown a positive correlation between psychological capital and organizational behavior (Gooty *et al.*, 2009; Norman *et al.*, 2010). In contrast, a negative correlation exists between psychological capital and undesirable or deviant behaviors (Avey *et al.*, 2011; Lei *et al.*, 2023). Furthermore, Walumbwa *et al.* (2011) proposed a positive relationship between psychological capital and organizational behavior at the team level.

Positive psychological capital has a significant effect on positive work behavior and job satisfaction in organizational members (Larson and Luthans, 2006). Psychological capital composition is a significant indicator of positive work motivation, which is associated with organizational and work performance (Newman *et al.*, 2014). Hope has been found to have a positive impact on organizational commitment, job performance, and job satisfaction in various independent studies (Luthans *et al.*, 2007; Katircioglu *et al.*, 2022).

3.3.3.2 Psychological capital and work performance. Research has shown that individuals with higher levels of positive psychological capital are more effective in their work compared to those with lower levels (Luthans *et al.*, 2007, 2008a). Similarly, Luthans *et al.* (2008a) proposed a positive association between positive psychological capital and individual job performance. Avey *et al.* (2010) discovered positive correlations between psychological capital and various activities such as human resources, finance, and management. Moreover, several studies have demonstrated a positive relationship between psychological capital and job performance (e.g. Luthans *et al.*, 2008a; Ardichvili, 2011; Alkire and Avey, 2013; Kappagoda *et al.*, 2014; Han and Li, 2015; Alessandri *et al.*, 2018; Kidron and Peretz, 2024; Yuwono *et al.*, 2024). Positive psychological capital has a significant influence on individual-level innovation efficiency. Sweetman *et al.* (2011) suggested a relationship between positive psychological capital and creative efficiency and innovative problem-solving.

Besides, the association between psychological capital and job performance is evident at both the team and organizational levels. Walumbwa *et al.* (2010) proposed a positive relationship between leaders' psychological capital and employees' psychological capital and work performance. Walumbwa *et al.* (2011) expanded on the collective psychological capital framework, which focuses on the team's shared psychological state. This framework is based on four attributes of psychological capital at the individual level. McKenny *et al.* (2013) found



a significant correlation between psychological capital and financial performance in organizational settings.

*3.3.4 Psychological capital and other factors.* Psychological capital is linked to factors beyond attitude, behavior, work efficiency, and job satisfaction. The factors examined in previous studies encompass various domains, such as health, entrepreneurial intention, project success, and knowledge management. Examples of previous studies related to these domains include references for health (e.g. [Cameron et al., 2003](#); [Luthans and Jensen, 2005](#); [Sukoco and Lee, 2017](#); [Broad and Luthans, 2020](#); [Luthans and Broad, 2024](#)) or Covid-19 (e.g. [Mao et al., 2021](#); [Forster et al., 2023](#); [Sharma et al., 2024](#)), for entrepreneurial intention (e.g. [Ma et al., 2018](#); [Newman et al., 2019](#); [Flores et al., 2023](#)), for project success (e.g. [Avey et al., 2011](#); [Natovich et al., 2013](#)), and knowledge management (e.g. [Ardichvili, 2011](#); [Sartori and Scalco, 2014](#); [Han and Li, 2015](#); [Goswami and Agrawal, 2023](#)). In addition, several authors have examined the connection between extended capital structures, including human capital and positive psychological capital (e.g. [Cameron et al., 2003](#); [Luthans and Jensen, 2005](#); [Sukoco and Lee, 2017](#); [Flores et al., 2023](#)), as well as social capital and positive psychological capital (e.g. [Epitropaki, 2013](#); [Luthans et al., 2004](#); [Luthans and Youssef, 2004](#); [Kahtani and Sulphery, 2022](#); [Kidron and Peretz, 2024](#)). Authors have shown interest in psychological capital in the field of service marketing (e.g. [Avey, Nimmicht and Pigeon, 2011](#); [Avey et al., 2011](#); [Nguyen and Nguyen, 2012](#); [Liu et al., 2024](#)). [Table 2](#) provides comprehensive summaries of studies about psychological capital.

## 4. Psychological capital measurement and research trends

### 4.1 Psychological capital measurement

*4.1.1 Measurement approach.* Psychological capital has been evaluated in studies at both individual and team levels using a *PsyCap* Questionnaire (PCQ). This scale, consisting of 24 observed variables, was developed and validated by [Luthans et al. \(2007\)](#). Besides, [Newman et al. \(2014a, b\)](#) found that the *PCQ* measure is commonly used in empirical studies to assess psychological capital at both individual and team levels. Moreover, several studies employ the abbreviated version of the *PCQ* measure, while a minority utilize the covert scale ([Luthans et al., 2016](#); [Luthans et al., 2019](#)).

Then, [Dawkins et al. \(2013\)](#) highlighted critical evaluations of psychological attributes in the *PCQ* measure, as supported by theoretical background studies. Researchers have identified several important issues related to the measurement of psychological capital. These include the need to address biases in self-reported scales, the potential use of alternative measures such as other-rated or physiological scales, and the lack of sufficient evaluations regarding the suitability of the psychological capital scale for team and organizational levels.

In many studies, individual-level data on psychological capital were collected from a single source and at a single time point, which raises the possibility of Common Method Variance (CMV). Accordingly, *CMV* has the potential to result in inflated correlations among psychological capital variables ([Avey et al., 2011](#)). Despite researchers acknowledging the importance of mitigating *CMV* through data collection from various sources and at different time points ([Podsakoff et al., 2003](#)), the findings suggested that this problem continues to exist. Hence, it is crucial to focus on addressing *CMV* in the interrelationships among the components of the psychological capital measure.

*4.1.2 Psychological capital measure.* An alternative method for assessing psychological capital at the individual level, in response to the subjective nature of self-report scales ([Demerouti et al., 2011](#)). This entails obtaining evaluations from partners, supervisors, and stakeholders regarding the psychological well-being of the employee. Besides, [Harms and Luthans \(2012\)](#) and [Harms et al. \(2017, 2018\)](#) suggested employing the Implicit *PsyCap* Questionnaire (I-PCQ) as a means to mitigate bias. The *I-PCQ* scale comprises interviews with individuals regarding three

distinct narratives, each presenting positive, negative, and ambiguous events. Participants are subsequently requested to answer inquiries pertaining to the four constituents of psychological capital. The *I-PCQ* includes scale values that are consistent with the *PCQ* (Luthans, 2012; Harms *et al.*, 2018; Lorenz *et al.*, 2016; Newman *et al.*, 2019). Although this approach reduces subjectivity, it does not fully eliminate *CMV* because it relies on self-reported data.

While psychological capital has traditionally been studied at the individual level, there is a growing interest in examining it at the team and organizational levels. Walumbwa *et al.* (2011) created a scale to measure collective psychological capital, which emphasizes the collaboration between team members to improve team capability and accomplish organizational objectives. Greater agreement among team members leads to increased collective psychological capital in this particular context. Roma *et al.* (2009) highlighted the impact of positive psychological capital on team performance, a topic of growing importance in research. Furthermore, McKenny *et al.* (2013) introduced a psychological capital scale specifically designed for measuring organizational-level factors. This scale utilizes content analysis to examine a collection of keywords derived from CEO letters to shareholders, which represent the psychological capital of

Outcome	Level	Details of related works
Attitude	P	Avey <i>et al.</i> (2008, 2011), Larson and Luthans (2006), Avey <i>et al.</i> (2010), Alkire and Avey (2013), Youssef and Luthans (2013), Kappagoda <i>et al.</i> (2014), Newman <i>et al.</i> (2014a, b), Miao <i>et al.</i> (2021)
	T	Youssef and Luthans (2013), Memili <i>et al.</i> (2014), Newman <i>et al.</i> (2014a, b), Sukoco and Lee (2017), Liu <i>et al.</i> (2024)
	O	Luthans and Jensen (2005), Avey <i>et al.</i> (2010), McMurray <i>et al.</i> (2010), Alkire and Avey (2013), Newman <i>et al.</i> (2014a, b), Giltrow (2015), Yildiz (2019), Shie and Chang (2022), Kumar <i>et al.</i> (2024)
Behavior	P	Avey <i>et al.</i> (2008, 2011), Avey <i>et al.</i> (2009), Gooty <i>et al.</i> (2009), Avey <i>et al.</i> (2010), Norman <i>et al.</i> (2010), Ardichvili (2011), Alkire and Avey (2013), Youssef and Luthans (2013), Newman <i>et al.</i> (2014a, b), Paterson <i>et al.</i> (2014), Avey <i>et al.</i> (2022)
	T	Walumbwa <i>et al.</i> (2011), Youssef and Luthans (2013), Newman <i>et al.</i> (2014a, b), Uen <i>et al.</i> (2021), Lei <i>et al.</i> (2023), Liu <i>et al.</i> (2024)
	O	Luthans and Youssef (2007, 2017), Gooty <i>et al.</i> (2009), Avey <i>et al.</i> (2010), Sweetman <i>et al.</i> (2011), Alkire and Avey (2013), Youssef and Luthans (2013), Newman <i>et al.</i> (2014a, b), Paterson <i>et al.</i> (2014), Giltrow (2015), Yildiz (2019), Tefera and Hunsaker (2021), Kidron and Peretz (2024)
Job performance	P	Luthans <i>et al.</i> (2008a), Avey <i>et al.</i> (2008, 2011), Ardichvili (2011), Nguyen and Nguyen (2012), McKenny <i>et al.</i> (2013), Newman <i>et al.</i> (2014a, b), Paterson <i>et al.</i> (2014), Salanova <i>et al.</i> (2021), Yuwono <i>et al.</i> (2024)
	T	Walumbwa <i>et al.</i> (2010, 2011), Baron <i>et al.</i> (2013), Epitropaki (2013), Siyal <i>et al.</i> (2023), Youssef and Luthans (2013), Yuwono <i>et al.</i> (2024)
	O	Luthans <i>et al.</i> (2007, 2008a), Avey <i>et al.</i> (2010), Avey <i>et al.</i> (2010), Rego <i>et al.</i> (2010), Walumbwa <i>et al.</i> (2010, 2011), Sweetman <i>et al.</i> (2011), McKenny <i>et al.</i> (2013), Kappagoda <i>et al.</i> (2014), Newman <i>et al.</i> (2014), Newman <i>et al.</i> (2014a, b), Paterson <i>et al.</i> (2014), Han and Li (2015), Kidron and Peretz (2024)
Satisfaction	P	Luthans <i>et al.</i> (2007, 2008a, b), Larson and Luthans (2006), Avey <i>et al.</i> (2010), Avey <i>et al.</i> (2011), Baron <i>et al.</i> (2013), Newman <i>et al.</i> (2014), Bergheim <i>et al.</i> (2015), Mao <i>et al.</i> (2021), Katircioglu <i>et al.</i> (2022)
	T	Youssef and Luthans (2013), Newman <i>et al.</i> (2014), Newman <i>et al.</i> (2014a, b), Qiu <i>et al.</i> (2019), Agarwal and Avey (2020)
	O	Luthans <i>et al.</i> (2007, 2008a, b, 2013), McMurray <i>et al.</i> (2010), Newman <i>et al.</i> (2014), Tang <i>et al.</i> (2019), Dirzyte and Patapas (2022), Shie and Chang (2022), Doci <i>et al.</i> (2023), Schwarz <i>et al.</i> (2023)

**Note(s):** P: Individual; T: Team; O: Organization

**Source(s):** Compiled by author

**Table 2.**  
The outcome of  
psychological capital



---

the organization. The Computer-Aided Text (CAT) method, which is used to measure psychological capital, bears resemblance to the self-report scale.

#### 4.2 *Psychological capital research trends*

Theoretical gaps in psychological capital research can be categorized into three areas: (1) Studying the applications of psychological capital at different levels; (2) Examining the underlying mechanisms that influence psychological capital outcomes at individual, team, and organizational levels; and (3) Identifying factors that may moderate the relationships between psychological capital and its outcomes in various settings and levels. Further research in these three areas can yield valuable insights for improving the effects of positive psychological capital on job performance at different levels and identifying the contexts that maximize the impact of psychological capital on job performance.

*4.2.1 Multilevel applications and psychological capital.* Previous research has primarily focused on examining psychological capital at the individual level, with limited attention given to studying it at the team and organizational levels. Some authors have examined the various applications of psychological capital at multiple levels (e.g. [Walumbwa et al., 2010, 2011](#); [Salanova et al., 2021](#); [Miao et al., 2021](#); [Hartmann et al., 2020](#)), which has brought up several important concerns.

Numerous studies have investigated psychological capital at various levels, indicating that its impact on individual job performance is particularly significant at the team and organizational levels ([Walumbwa et al., 2011](#); [Qiu et al., 2019](#); [Agarwal and Avey, 2020](#); [Schwarz et al., 2023](#); [Yuwono et al., 2024](#)). Furthermore, there is a relationship between psychological capital and its outcomes that can be observed at different levels. This has two important implications, these are not only examine the positive psychological capital structure conceptually, but also explore its theoretical implications. Furthermore, examining the correlation between psychological capital and associated factors at various levels offers organizations the opportunity to optimize resource allocation in order to effectively cultivate positive psychological capital at the individual, team, and organizational levels. Limited research exists on the association between psychological capital and organizational outcomes, as noted by [McKenny et al. \(2013\)](#). They emphasize the significance of psychological capital in influencing organizational outcomes, such as innovation efficiency.

Future research on psychological capital could investigate the direct effects of concepts at various levels. For instance, this study aims to examine the correlation between individual performance and psychological capital within a team context. Moreover, it seeks to explore the relationship between a highly efficient work system and psychological capital at the individual level. [Newman et al. \(2014a, b\)](#), [Shie and Chang \(2022\)](#), [Wang et al. \(2024\)](#) suggested that combining analyses of psychological capital factors at different levels allows for comparisons between organizational outcomes, such as human resource development assistance, and individual or team-level results, such as investment in leadership development, within the organization as a whole. [Gully et al. \(2002\)](#) suggested that there may be distinct outcomes at the individual and team levels when considering individual and collective confidence. Furthermore, future research could investigate the impact of individual psychological capital and collective psychological capital on outcomes at both the individual and team levels.

*4.2.2 Mediating of psychological capital.* The main emphasis in psychological capital research has been on the assumptions and results, with less consideration given to intermediary factors. Nevertheless, certain researchers have begun to identify potential mediators that could explain the connection between psychological capital and its outcomes

(e.g. Avey *et al.*, 2008, 2011, Avey *et al.*, 2010). However, it is important to note that this field of research is still in its nascent phase. Hence, additional research is imperative to enhance comprehension of the factors that impact outcomes related to psychological capital (Newman *et al.*, 2014a, b). Furthermore, it is crucial for researchers to thoroughly investigate mediating variables at both the individual and group levels.

Research has shown that personal psychological capital has a stronger impact on job performance at the individual level compared to other levels such as team and organization (Newman *et al.*, 2014a, b). Further research is required to better understand the factors that affect the outcomes of psychological capital at the team level. Psychological capital at the team level can positively impact team performance through the improvement of team empowerment and communication. Research has demonstrated significant associations between variables such as team commitment, team effectiveness, and team performance (Gully *et al.*, 2002; Roma *et al.*, 2009; Sukoco and Lee, 2017; Liu *et al.*, 2024).

*4.2.3 Moderating of psychological capital.* Research on psychological capital has been limited in exploring factors that may influence the relationship between psychological capital and its outcomes (Harter *et al.*, 2002). Additional research is needed to explore the moderator variables of psychological capital in order to establish the specific circumstances under which the relationships between psychological capital and its outcomes vary at different levels and degrees (Newman *et al.*, 2014a, b; Shie and Chang, 2022). These studies can help organizations create work environments and offer support for effectively utilizing psychological capital at the individual and team levels. Furthermore, it is important for research on the moderating variables of psychological capital and its outcomes to consider all three levels of analysis, namely individuals, teams, and organizations (Newman *et al.*, 2014a, b; Wang *et al.*, 2024).

Professionals expect that positive psychological capital can have a significant impact on the performance of certain individuals at the individual level. Positive psychological capital enhances individuals' confidence in establishing crucial social networks (Saks and Gruman, 2011; Liu *et al.*, 2024). New employees can utilize social networks to seek advice and support in order to enhance their performance in their work roles. Besides, researchers can analyze various factors that may influence the connection between psychological capital and its outcomes at the team level. These factors include team value validity (e.g. Brown and Trevino, 2006; Larson and Luthans, 2006; Giltrow, 2015), behavioral integration (e.g. Simsek *et al.*, 2005), and cohesion (e.g. Beal *et al.*, 2003). These factors can augment the influence of collective psychological capital on team performance. Furthermore, research has shown that consensus among team members can enhance the group's effectiveness in achieving goals (Gibson and Earley, 2007). Further research is required to investigate potential factors that may influence the relationship between psychological capital and its outcomes at the organizational level.

## 5. Conclusion

The review of related studies reveals a growing global interest among researchers in the concept of positive psychological capital. In Vietnam, there has been limited research attention given to this topic. Psychological capital is closely linked to other concepts, including leadership, attitude, behavior, job performance, and satisfaction, at different levels (individual, team, and organization). Furthermore, scholars are investigating various factors associated with psychological capital, including health, project success, service marketing, banking services . . . Additionally, it is important to note that different research areas have varying conceptualizations and scales when it comes to psychological capital.

The research findings provide valuable insights for managers to better understand extended capital structures, particularly psychological capital. This comprehension can assist in developing efficient tactics and strategies to promote and improve the management of positive psychological capital at levels of individual, team, and organization. The research results provide a scientific basis and a starting point on psychological capital. In the future works, authors will study more detail in the impact of *PsyCap* for organizational innovation, the applicability of *PsyCap* in different cultural contexts . . .

## References

- Abbas, M., Raja, U., Darr, W. and Bouckenoghe, D. (2012), "Combined effects of perceived politics and psychological capital on job satisfaction, turnover intentions, and performance", *Journal of Management*, Vol. 27, pp. 621-636, doi: [10.1177/0149206312455243](https://doi.org/10.1177/0149206312455243).
- Agarwal, U.A. and Avey, J.B. (2020), "Abusive supervisors and employees who cyberloaf: examining the roles of psychological capital and contract breach", *Internet Research*, Vol. 30 No. 3, pp. 789-809, doi: [10.1108/intr-05-2019-0208](https://doi.org/10.1108/intr-05-2019-0208).
- Alessandri, G., Consiglio, C., Luthans, F. and Borgogni, L. (2018), "Testing a dynamic model of the impact of psychological capital on work engagement and job performance", *Career Development International*, Vol. 23 No. 1, pp. 33-47, doi: [10.1108/cdi-11-2016-0210](https://doi.org/10.1108/cdi-11-2016-0210).
- Alkire, T.D. and Avey, J.B. (2013), "Psychological capital and the intent to pursue employment with developed and emerging market multinational corporations", *Human Resource Development International*, Vol. 16 No. 1, pp. 40-55, doi: [10.1080/13678868.2012.738477](https://doi.org/10.1080/13678868.2012.738477).
- Ardichvili, A. (2011), "Invited reaction: meta-analysis of the impact of psychological capital on employee attitudes, behaviors, and performance", *Human Resource Development Quarterly*, Vol. 22 No. 2, pp. 153-156, doi: [10.1002/hrdq.20071](https://doi.org/10.1002/hrdq.20071).
- Asare, N., Otchere, F. and Onumah, J.M. (2023), "Corporate board structures and intellectual capital: evidence from banks in Africa", *Asian Journal of Economics and Banking*, Vol. 7 No. 1, pp. 146-163, doi: [10.1108/ajeb-06-2020-0020](https://doi.org/10.1108/ajeb-06-2020-0020).
- Avey, J.B., Hughes, L.W., Norman, S.M. and Luthans, K.W. (2008), "Using positivity, transformational leadership and empowerment to combat employee negativity", *Leadership and Organization Development Journal*, Vol. 29 No. 2, pp. 110-126, doi: [10.1108/01437730810852470](https://doi.org/10.1108/01437730810852470).
- Avey, J.B., Luthans, F. and Jensen, S.M. (2009), "Psychological capital: a positive resource for combating employee stress and turnover", *Human Resource Management*, Vol. 48 No. 5, pp. 677-693, doi: [10.1002/hrm.20294](https://doi.org/10.1002/hrm.20294).
- Avey, J.B., Luthans, F. and Youssef, C.M. (2010a), "The additive value of positive psychological capital in predicting work attitudes and behaviors", *Journal of Management*, Vol. 36 No. 2, pp. 430-452, doi: [10.1177/0149206308329961](https://doi.org/10.1177/0149206308329961).
- Avey, J.B., Nimmicht, J.L. and Graber Pigeon, N. (2010b), "Two field studies examining the association between positive psychological capital and employee performance", *Leadership and Organization Development Journal*, Vol. 31 No. 5, pp. 384-401, doi: [10.1108/01437731011056425](https://doi.org/10.1108/01437731011056425).
- Avey, J.B., Reichard, R.J., Luthans, F. and Mhatre, K.H. (2011), "Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance", *Human Resource Development Quarterly*, Vol. 22 No. 2, pp. 127-152, doi: [10.1002/hrdq.20070](https://doi.org/10.1002/hrdq.20070).
- Avey, J.B., Agarwal, U. and Gill, J.K. (2022), "How does abusive supervision hurt employees? The role of positive psychological capital", *International Journal of Productivity and Performance Management*, Vol. 71 No. 2, pp. 429-444, doi: [10.1108/ijppm-12-2019-0559](https://doi.org/10.1108/ijppm-12-2019-0559).
- Avey, J., Newman, A. and Herbert, K. (2023), "Fostering employees' resilience and psychological well-being through an app-based resilience intervention", *Personnel Review*, Vol. 52 No. 9, pp. 2229-2244, doi: [10.1108/pr-08-2021-0612](https://doi.org/10.1108/pr-08-2021-0612).

- Baron, R.A., Franklin, R.J. and Hmieleski, K.M. (2013), "Why entrepreneurs often experience low, not high, levels of stress the joint effects of selection and psychological capital", *Journal of Management*, Vol. 28 No. 3, pp. 1-27, doi: [10.1177/0149206313495411](https://doi.org/10.1177/0149206313495411).
- Beal, D.J., Cohen, R.R., Burke, M.J. and McLendon, C.L. (2003), "Cohesion and performance in groups: a meta-analytic clarification of construct relations", *Journal of Applied Psychology*, Vol. 88 No. 6, pp. 989-1004, doi: [10.1037/0021-9010.88.6.989](https://doi.org/10.1037/0021-9010.88.6.989).
- Bergheim, K., Nielsen, M.B., Mearns, K. and Eid, J. (2015), "The relationship between psychological capital, job satisfaction, and safety perceptions in the maritime industry", *Safety Science*, Vol. 74, pp. 27-36, doi: [10.1016/j.ssci.2014.11.024](https://doi.org/10.1016/j.ssci.2014.11.024).
- Broad, J.D. and Luthans, F. (2020), "Positive resources for psychiatry in the fourth industrial revolution: building patient and family focused psychological capital (PsyCap)", *International Review of Psychiatry*, Vol. 32 Nos 7-8, pp. 542-554, doi: [10.1080/09540261.2020.1796600](https://doi.org/10.1080/09540261.2020.1796600).
- Brown, M.E. and Trevino, L.K. (2006), "Socialized charismatic leadership, values congruence, and deviance in work groups", *Journal of Applied Psychology*, Vol. 91 No. 4, pp. 954-962, doi: [10.1037/0021-9010.91.4.954](https://doi.org/10.1037/0021-9010.91.4.954).
- Cameron, K., Dutton, J. and Quinn, R.E. (2003), *Positive Organizational Scholarship: Foundations of a New Discipline*, Berrett Koehler.
- Dawkins, S., Martin, A., Scott, J. and Sanderson, K. (2013), "Building on the positives: a psychometric review and critical analysis of the construct of psychological capital", *Journal of Occupational and Organizational Psychology*, Vol. 86 No. 3, pp. 348-370, doi: [10.1111/joop.12007](https://doi.org/10.1111/joop.12007).
- Demerouti, E., van Eeuwijk, E., Snelder, M. and Wild, U. (2011), "Assessing the effects of a "personal effectiveness" training on psychological capital, assertiveness and self-awareness using self-other agreement", *Career Development International*, Vol. 16 No. 1, pp. 60-81, doi: [10.1108/13620431111107810](https://doi.org/10.1108/13620431111107810).
- Diener, E. (2003), "What is positive about positive psychology: the curmudgeon and pollyanna", *Psychological Inquiry*, Vol. 14, pp. 115-120.
- Dirzyte, A. and Patapas, A. (2022), "Positive organizational practices, life satisfaction, and psychological capital in the public and private sectors", *Sustainability*, Vol. 14 No. 1, p. 488, doi: [10.3390/su14010488](https://doi.org/10.3390/su14010488).
- Doci, E., Knappert, L., Nijs, S. and Hofmans, J. (2023), "Unpacking psychological inequalities in organisations: psychological capital reconsidered", *Applied Psychology*, Vol. 72 No. 1, pp. 44-63, doi: [10.1111/apps.12379](https://doi.org/10.1111/apps.12379).
- Epitropaki, O. (2013), "A multi-level investigation of psychological contract breach and organizational identification through the lens of perceived organizational membership: testing a moderated-mediated model", *Journal of Organizational Behavior*, Vol. 34 No. 1, pp. 65-86, doi: [10.1002/job.1793](https://doi.org/10.1002/job.1793).
- Flores, M., Roque, D., Alles, M. and Fernandez, M. (2023), "The international orientation of academic entrepreneurship: the role of relational, human and psychological capital", *Journal of Intellectual Capital*, Vol. 24 No. 3, pp. 683-709, doi: [10.1108/jic-06-2021-0157](https://doi.org/10.1108/jic-06-2021-0157).
- Forster, C., Duchek, S., Geithner, S. and Krägler, M. (2023), "Developing an integrated framework of healthcare leaders' resilience", *Review of Managerial Science*, Vol. 17 No. 5, pp. 1765-1788, doi: [10.1007/s11846-022-00572-2](https://doi.org/10.1007/s11846-022-00572-2).
- Friend, S.B., Johnson, J.S., Luthans, F. and Sohi, R.S. (2016), "Positive psychology in sales: integrating psychological capital", *Journal of Marketing Theory and Practice*, Vol. 24 No. 3, pp. 306-327, doi: [10.1080/10696679.2016.1170525](https://doi.org/10.1080/10696679.2016.1170525).
- Gibson, C.B. and Earley, P.C. (2007), "Collective cognition in action: accumulation, interaction, examination, and accommodation in the development and operation of group efficacy beliefs in the workplace", *Academy of Management Review*, Vol. 32 No. 2, pp. 438-458, doi: [10.5465/amr.2007.24351397](https://doi.org/10.5465/amr.2007.24351397).

- Giltrow, M. (2015), "Investigating the relationship of wellbeing with sustainable values, attitudes and behaviour", *Transformative Approaches to Sustainable Development at Universities*, pp. 91-102, doi: [10.1007/978-3-319-08837-2\\_7](https://doi.org/10.1007/978-3-319-08837-2_7).
- Goody, J., Gavin, M., Johnson, P.D., Frazier, M.L. and Snow, D.B. (2009), "In the eyes of the beholder transformational leadership, positive psychological capital, and performance", *Journal of Leadership and Organizational Studies*, Vol. 15 No. 4, pp. 353-367, doi: [10.1177/1548051809332021](https://doi.org/10.1177/1548051809332021).
- Goswami, A.K. and Agrawal, R.K. (2023), "It's a knowledge centric world! Does ethical leadership promote knowledge sharing and knowledge creation? Psychological capital as mediator and shared goals as moderator", *Journal of Knowledge Management*, Vol. 27 No. 3, pp. 584-612, doi: [10.1108/jkm-09-2021-0669](https://doi.org/10.1108/jkm-09-2021-0669).
- Gully, S.M., Incalcaterra, K.A., Joshi, A. and Beaubien, J.M.A. (2002), "Meta-analysis of team-efficacy, potency, and performance: interdependence and level of analysis as moderators of observed relationships", *Journal of Applied Psychology*, Vol. 87 No. 5, pp. 819-829, doi: [10.1037/0021-9010.87.5.819](https://doi.org/10.1037/0021-9010.87.5.819).
- Han, Y. and Li, D. (2015), "Effects of intellectual capital on innovative performance: the role of knowledge-based dynamic capability", *Management Decision*, Vol. 53 No. 1, pp. 40-56, doi: [10.1108/md-08-2013-0411](https://doi.org/10.1108/md-08-2013-0411).
- Harms, P.D. and Luthans, F. (2012), "Measuring implicit psychological constructs in organizational behavior: an Example using psychological capital", *Journal of Organizational Behavior*, Vol. 33 No. 4, pp. 589-594, doi: [10.1002/job.1785](https://doi.org/10.1002/job.1785).
- Harms, P.D., Vanhove, A. and Luthans, F. (2017), "Positive projections and health: an initial validation of the implicit psychological capital health measure", *Applied Psychology*, Vol. 66 No. 1, pp. 78-102, doi: [10.1111/apps.12077](https://doi.org/10.1111/apps.12077).
- Harms, P.D., Krasikova, D.V. and Luthans, F. (2018), "Not me, but reflects me: validating a simple implicit measure of psychological capital", *Journal of Personality Assessment*, Vol. 100 No. 5, pp. 551-562, doi: [10.1080/00223891.2018.1480489](https://doi.org/10.1080/00223891.2018.1480489).
- Harter, J.K., Schmidt, F.L. and Hayes, T.L.H. (2002), "Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis", *Journal of Applied Psychology*, Vol. 87 No. 2, pp. 268-279, doi: [10.1037//0021-9010.87.2.268](https://doi.org/10.1037//0021-9010.87.2.268).
- Hartmann, S., Weiss, M., Newman, A. and Hoegl, M. (2020), "Resilience in the workplace: a multilevel review and synthesis", *Applied Psychology*, Vol. 69 No. 3, pp. 913-959, doi: [10.1111/apps.12191](https://doi.org/10.1111/apps.12191).
- Jang, E. (2022), "Authentic leadership and task performance via psychological capital: the moderated mediation role of performance pressure", *Frontiers in Psychology*, Vol. 13, p. 722214, doi: [10.3389/fpsyg.2022.722214](https://doi.org/10.3389/fpsyg.2022.722214).
- Kahtani, N.S. and Sulphay, M.M. (2022), "A study on how psychological capital, social capital, workplace wellbeing, and employee engagement relate to task performance", *Sage Open*, Vol. 12 No. 2, p. 215824402210950, doi: [10.1177/21582440221095010](https://doi.org/10.1177/21582440221095010).
- Kappagoda, U.W.M.R., Othman, P., Zainul, H. and Alwis, G. (2014), "The impact of psychological capital on job performance: development of a conceptual framework", *European Journal of Business and Management*, Vol. 6 No. 15, pp. 143-154.
- Katircioglu, S., Arasli, H. and Cizreliogullari, M.N. (2022), "The role of ethical leadership in psychological capital and job satisfaction of immigrant workers: evidence from the hotel industry of Cyprus", *Sage Open*, Vol. 12 No. 3, p. 215824402110699, doi: [10.1177/21582440211069959](https://doi.org/10.1177/21582440211069959).
- Khalid, A., Pan, F., Li, P., Wang, W. and Ghaffari, A.S. (2020), "The impact of occupational stress on job burnout among bank employees in Pakistan, with psychological capital as a mediator", *Frontiers in Public Health*, Vol. 7, p. 410, doi: [10.3389/fpubh.2019.00410](https://doi.org/10.3389/fpubh.2019.00410).
- Kidron, A. and Peretz, H. (2024), "Linking psychological and social capital to organizational performance: a moderated mediation of organizational trust and proactive behavior", *European Management Journal*, Vol. 42 No. 2, pp. 245-254, doi: [10.1016/j.emj.2022.11.008](https://doi.org/10.1016/j.emj.2022.11.008).

- Kumar, D., Upadhyay, Y., Yadav, R. and Goyal, A.K. (2024), "Psychological capital and innovative work behaviour: the role of mastery orientation and creative self-efficacy", *International Journal of Hospitality Management*, Vol. 102, 103157, doi: [10.1016/j.ijhm.2022.103157](https://doi.org/10.1016/j.ijhm.2022.103157).
- Larson, M. and Luthans, F. (2006), "Potential added value of psychological capital in predicting work attitudes", *Journal of Leadership and Organizational Studies*, Vol. 13 No. 2, pp. 75-92, doi: [10.1177/10717919070130020601](https://doi.org/10.1177/10717919070130020601).
- Lei, S., Zhang, Y. and Cheah, K.S. (2023), "Mediation of work-family support and affective commitment between family supportive supervisor Behaviour and workplace deviance", *Heliyon*, Vol. 9 No. 11, e21509, doi: [10.1016/j.heliyon.2023.e21509](https://doi.org/10.1016/j.heliyon.2023.e21509).
- Liu, J., You, S., Jiang, Y., Feng, X., Song, C., Yu, L. and Jiao, L. (2024), "Associations between social networks and creative behavior during adolescence: the mediating effect of psychological capital", *Thinking Skills and Creativity*, Vol. 49, p. 101368, doi: [10.1016/j.tsc.2023.101368](https://doi.org/10.1016/j.tsc.2023.101368).
- Lorenz, T., Beer, C., Pütz, J. and Heinitz, K. (2016), "Measuring psychological capital: construction and validation of the compound PsyCap (CPC-12)", *PLoS One*, Vol. 11 No. 4, e0152892, doi: [10.1371/journal.pone.0152892](https://doi.org/10.1371/journal.pone.0152892).
- Luthans, F. (2002), "The need for and meaning of positive organizational behavior", *Journal of Organizational Behavior*, Vol. 23 No. 6, pp. 695-706, doi: [10.1002/job.165](https://doi.org/10.1002/job.165).
- Luthans, F. (2012), "Psychological capital: implications for HRD, retrospective analysis, and future directions", *Human Resource Development Quarterly*, Vol. 23 No. 1, pp. 1-8, doi: [10.1002/hrdq.21119](https://doi.org/10.1002/hrdq.21119).
- Luthans, F. and Broad, J.D. (2024), "Positive psychological capital to help combat the mental health fallout from the pandemic and VUCA environment", *Organizational Dynamics*, Vol. 51 No. 2, p. 100817, doi: [10.1016/j.orgdyn.2020.100817](https://doi.org/10.1016/j.orgdyn.2020.100817).
- Luthans, K.W. and Jensen, S.M. (2005), "The linkage between psychological capital and commitment to organizational mission: a study of nurses", *Journal of Nursing Administration*, Vol. 35 No. 6, pp. 304-310, doi: [10.1097/00005110-200506000-00007](https://doi.org/10.1097/00005110-200506000-00007).
- Luthans, F. and Youssef, C.M. (2004), "Human, social, and now positive psychological capital management: investing in people for competitive advantage", *Organizational Dynamics*, Vol. 33 No. 2, pp. 143-160, doi: [10.1016/j.orgdyn.2004.01.003](https://doi.org/10.1016/j.orgdyn.2004.01.003).
- Luthans, F. and Youssef, C.M. (2007), "Emerging positive organizational behavior", *Journal of Management*, Vol. 33 No. 3, pp. 321-349, doi: [10.1177/0149206307300814](https://doi.org/10.1177/0149206307300814).
- Luthans, F. and Youssef, C.M. (2017), "Psychological capital: an evidence-based positive approach", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4 No. 1, pp. 339-366, doi: [10.1146/annurev-orgpsych-032516-113324](https://doi.org/10.1146/annurev-orgpsych-032516-113324).
- Luthans, F., Luthans, K.W. and Luthans, B.C. (2004), "Positive psychological capital: beyond human and social capital", *Business Horizons*, Vol. 47 No. 1, pp. 45-50, doi: [10.1016/j.bushor.2003.11.007](https://doi.org/10.1016/j.bushor.2003.11.007).
- 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*, Vol. 60 No. 3, pp. 541-572, doi: [10.1111/j.1744-6570.2007.00083.x](https://doi.org/10.1111/j.1744-6570.2007.00083.x).
- Luthans, F., Norman, S.M., Avolio, B.J. and Avey, J.B. (2008a), "The mediating role of psychological capital in the supportive organizational climate – employee performance relationship", *Journal of Organizational Behavior*, Vol. 29 No. 2, pp. 219-238, doi: [10.1002/job.507](https://doi.org/10.1002/job.507).
- Luthans, F., Avey, J.B., Smith, R. and Li, W. (2008b), "More evidence on the value of Chinese workers' psychological capital: a potentially unlimited competitive resource?", *International Journal of Human Resource Management*, Vol. 19 No. 5, pp. 818-827, doi: [10.1080/09585190801991194](https://doi.org/10.1080/09585190801991194).
- Luthans, F., Youssef, C.M., Sweetman, D.S. and Harms, P.D. (2013), "Meeting the leadership challenge of employee well-being through relationship psychcap and health psychcap", *Journal of Leadership and Organizational Studies*, Vol. 20 No. 1, pp. 118-133, doi: [10.1177/1548051812465893](https://doi.org/10.1177/1548051812465893).



- 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*, Vol. 35 No. 9, pp. 1098-1118, doi: [10.1108/jmd-06-2015-0091](https://doi.org/10.1108/jmd-06-2015-0091).
- Luthans, K.W., Luthans, B.C. and Chaffin, T.D. (2019), "Refining grit in academic performance: the mediational role of psychological capital", *Journal of Management Education*, Vol. 43 No. 1, pp. 35-61, doi: [10.1177/1052562918804282](https://doi.org/10.1177/1052562918804282).
- Ma, H., Topolansky Barbe, F. and Zhang, Y.C. (2018), "Can social capital and psychological capital improve the entrepreneurial performance of the new generation of migrant workers in China?", *Sustainability*, Vol. 10 No. 11, pp. 39-64, doi: [10.3390/su10113964](https://doi.org/10.3390/su10113964).
- Mao, Y., He, J., Morrison, A.M. and Stefaniak, J. (2021), "Effects of tourism CSR on employee psychological capital in the Covid-19 crisis: from the perspective of conservation of resources theory", *Current Issues in Tourism*, Vol. 24 No. 19, pp. 2716-2734, doi: [10.1080/13683500.2020.1770706](https://doi.org/10.1080/13683500.2020.1770706).
- McKenny, A.F., Short, J.C. and Payne, G.T. (2013), "Using computer-aided text analysis to elevate constructs an illustration using psychological capital", *Organizational Research Methods*, Vol. 16 No. 1, pp. 152-184, doi: [10.1177/1094428112459910](https://doi.org/10.1177/1094428112459910).
- McMurray, A.J., Pirola-Merlo, A., Sarros, J.C. and Islam, M.M. (2010), "Leadership, climate, psychological capital, commitment, and wellbeing in a non-profit organization", *Leadership and Organization Development Journal*, Vol. 31 No. 5, pp. 436-457, doi: [10.1108/01437731011056452](https://doi.org/10.1108/01437731011056452).
- Memili, E., Welsh, D.H. and Kaciak, E. (2014), "Organizational psychological capital of family franchise firms through the lens of the leader-member exchange theory", *Journal of Leadership and Organizational Studies*, Vol. 21 No. 2, pp. 200-209, doi: [10.1177/1548051813515513](https://doi.org/10.1177/1548051813515513).
- Miao, R., Bozionelos, N., Zhou, W. and Newman, A. (2021), "High-performance work systems and key employee attitudes: the roles of psychological capital and an interactional justice climate", *The International Journal of Human Resource Management*, Vol. 32 No. 2, pp. 443-477, doi: [10.1080/09585192.2019.1710722](https://doi.org/10.1080/09585192.2019.1710722).
- Mustafa, M., Martin, L. and Hughes, M. (2016), "Psychological ownership, job satisfaction, and middle manager entrepreneurial behavior", *Journal of Leadership and Organizational Studies*, Vol. 23 No. 3, pp. 272-287, doi: [10.1177/1548051815627360](https://doi.org/10.1177/1548051815627360).
- Nahapiet, J. and Ghoshal, S. (1998), "Social capital, intellectual capital, and the organizational advantage", *Academy of Management Review*, Vol. 23 No. 2, pp. 242-266, doi: [10.5465/amr.1998.533225](https://doi.org/10.5465/amr.1998.533225).
- Natovich, J., Derzy, Z. and Natovich, R. (2013), "Positive psychology in information technology project management: the case of bad news reporting", *International Journal of Information Technology Project Management*, Vol. 4 No. 4, pp. 35-50, doi: [10.4018/ijitpm.2013100102](https://doi.org/10.4018/ijitpm.2013100102).
- Newman, A., Schwarz, S. and Borgia, D. (2014a), "How does microfinance enhance entrepreneurial outcomes in emerging economies? The mediating mechanisms of psychological and social capital", *International Small Business Journal*, Vol. 32 No. 2, pp. 158-179, doi: [10.1177/0266242613485611](https://doi.org/10.1177/0266242613485611).
- Newman, A., Ucbasaran, D., Zhu, F.E.I. and Hirst, G. (2014b), "Psychological capital: a review and synthesis", *Journal of Organizational Behavior*, Vol. 35 No. S1, pp. 120-138, doi: [10.1002/job.1916](https://doi.org/10.1002/job.1916).
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M. and Nielsen, I. (2019), "Entrepreneurial self-efficacy: a systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research", *Journal of Vocational Behavior*, Vol. 110, pp. 403-419, doi: [10.1016/j.jvb.2018.05.012](https://doi.org/10.1016/j.jvb.2018.05.012).
- Nguyen, T.D. and Nguyen, T.T. (2012), "Psychological capital, quality of work life, and quality of life of marketers evidence from Vietnam", *Journal of Macromarketing*, Vol. 32 No. 1, pp. 87-95, doi: [10.1177/0276146711422065](https://doi.org/10.1177/0276146711422065).

- Norman, S.M., Avey, J.B., Nimmicht, J.L. and Graber Pigeon, N. (2010), "The interactive effects of psychological capital and organizational identity on employee citizenship and deviance behaviors", *Journal of Leadership and Organizational Studies*, Vol. 17 No. 4, pp. 380-391, doi: [10.1177/1548051809353764](https://doi.org/10.1177/1548051809353764).
- Paterson, T.A., Luthans, F. and Jeung, W. (2014), "Thriving at work: impact of psychological capital and supervisor support", *Journal of Organizational Behavior*, Vol. 35 No. 3, pp. 434-446, doi: [10.1002/job.1907](https://doi.org/10.1002/job.1907).
- Peterson, S.J., Luthans, F., Avolio, B.J., Walumbwa, F.O. and Zhang, Z. (2011), "Psychological capital and employee performance: a latent growth modeling approach", *Personnel Psychology*, Vol. 64 No. 2, pp. 427-450, doi: [10.1111/j.1744-6570.2011.01215.x](https://doi.org/10.1111/j.1744-6570.2011.01215.x).
- 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*, Vol. 88 No. 5, pp. 879-903, doi: [10.1037/0021-9010.88.5.879](https://doi.org/10.1037/0021-9010.88.5.879).
- Przepiorka, A.M. (2017), "Psychological determinants of entrepreneurial success and life-satisfaction", *Current Psychology*, Vol. 36 No. 2, pp. 304-315, doi: [10.1007/s12144-016-9419-1](https://doi.org/10.1007/s12144-016-9419-1).
- Qiu, S., Alizadeh, A., Dooley, L.M. and Zhang, R. (2019), "The effects of authentic leadership on trust in leaders, organizational citizenship behavior, and service quality in the Chinese hospitality industry", *Journal of Hospitality and Tourism Management*, Vol. 40, pp. 77-87, doi: [10.1016/j.jhtm.2019.06.004](https://doi.org/10.1016/j.jhtm.2019.06.004).
- Rego, A., Marques, C., Leal, S., Sousa, F. and Cunha, M. (2010), "Psychological capital and performance of Portuguese civil servants: exploring neutralizers in the context of an appraisal system", *International Journal of Human Resource Management*, Vol. 21 No. 9, pp. 1531-1552, doi: [10.1080/09585192.2010.488459](https://doi.org/10.1080/09585192.2010.488459).
- Roberts, S.J., Scherer, L.L. and Bowyer, C.J. (2011), "Job stress and incivility: what role does psychological capital play?", *Journal of Leadership and Organizational Studies*, Vol. 22 No. 3, pp. 280-291, doi: [10.1177/15480518115585853](https://doi.org/10.1177/15480518115585853).
- Roma, V., Ferreira, L. and Peiro, J.M. (2009), "Team climate, climate strength and team performance, A longitudinal study", *Journal of Occupational and Organizational Psychology*, Vol. 82 No. 3, pp. 511-536, doi: [10.1348/096317908x370025](https://doi.org/10.1348/096317908x370025).
- Saks, A.M. and Gruman, J.A. (2011), "Organizational socialization and positive organizational behaviour: implications for theory, research, and practice", *Canadian Journal of Administrative Sciences*, Vol. 28 No. 1, pp. 14-26, doi: [10.1002/cjas.169](https://doi.org/10.1002/cjas.169).
- Salanova, M., Antognoni, H., Llorens, S. and Le Blanc, P. (2021), "We trust you! a multilevel-multireferent model based on organizational trust to explain performance", *International Journal of Environmental Research and Public Health*, Vol. 18 No. 8, p. 4241, doi: [10.3390/ijerph18084241](https://doi.org/10.3390/ijerph18084241).
- Santos, A.A.D. and Ponchio, M.C. (2021), "Functional, psychological and emotional barriers and the resistance to the use of digital banking services", *Innovation and Management Review*, Vol. 18 No. 3, pp. 331-348, doi: [10.1108/inmr-07-2020-0093](https://doi.org/10.1108/inmr-07-2020-0093).
- Sartori, R. and Scalco, A. (2014), "Managing organizational innovation through human resources, human capital and psychological capital", *European Journal of Management*, Vol. 14 No. 2, pp. 63-70, doi: [10.18374/ejm-14-2.5](https://doi.org/10.18374/ejm-14-2.5).
- Schwarz, G., Newman, A., Yu, J. and Michaels, V. (2023), "Psychological entitlement and organizational citizenship behaviors: the roles of employee involvement climate and affective organizational commitment", *The International Journal of Human Resource Management*, Vol. 34 No. 1, pp. 197-222, doi: [10.1080/09585192.2021.1962388](https://doi.org/10.1080/09585192.2021.1962388).
- Seligman, M.E. and Csikszentmihalyi, M. (2000), "Positive psychology: an introduction", *American Psychological Association*, Vol. 55 No. 1, pp. 5-14, doi: [10.1037/0003-066x.55.1.5](https://doi.org/10.1037/0003-066x.55.1.5).
- Sharma, V., Eissa, G., Newman, A., Lester, S.W. and Pandey, J. (2024), "Psychological entitlement and moral disengagement as antecedents of compliance with Covid-19 workplace safety protocols and the moderating role of moral identity", *Applied Psychology*, Vol. 73 No. 2, pp. 698-722, doi: [10.1111/apps.12496](https://doi.org/10.1111/apps.12496).

- Shie, E.H. and Chang, S.H. (2022), "Perceived principal's authentic leadership impact on the organizational citizenship behavior and well-being of teachers", *Sage Open*, Vol. 12 No. 2, p. 215824402210950, doi: [10.1177/21582440221095003](https://doi.org/10.1177/21582440221095003).
- Simsek, Z., Veiga, J.F., Lubatkin, M.H. and Dino, R.N. (2005), "Modeling the multilevel determinants of top management team behavioral integration", *Academy of Management Journal*, Vol. 48 No. 1, pp. 69-84, doi: [10.5465/amj.2005.15993139](https://doi.org/10.5465/amj.2005.15993139).
- Siyal, S., Liu, J., Ma, L., Kumari, K., Saeed, M., Xin, C. and Hussain, S.N. (2023), "Does inclusive leadership influence task performance of hospitality industry employees? Role of psychological empowerment and trust in leader", *Heliyon*, Vol. 9 No. 5, e15507, doi: [10.1016/j.heliyon.2023.e15507](https://doi.org/10.1016/j.heliyon.2023.e15507).
- Sukoco, B.M. and Lee, L.T.S. (2017), "The effects of psychological capital and team strain on the effectiveness of NPD teams: the moderating role of perceived diversity climate", *International Journal of Innovation Management*, Vol. 21 No. 04, p. 1750032, doi: [10.1142/s1363919617500323](https://doi.org/10.1142/s1363919617500323).
- 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*, Vol. 28 No. 1, pp. 4-13, doi: [10.1002/cjas.175](https://doi.org/10.1002/cjas.175).
- 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*, Vol. 10, p. 2699, doi: [10.3389/fpsyg.2019.02699](https://doi.org/10.3389/fpsyg.2019.02699).
- Tefera, C.A. and Hunsaker, W.D. (2021), "Using psychological capital at organizational levels of study", *Journal of Advances in Management Research*, Vol. 18 No. 4, pp. 548-567, doi: [10.1108/jamr-08-2020-0179](https://doi.org/10.1108/jamr-08-2020-0179).
- Uen, J.F., Vandavasi, R.K.K., Lee, K., Yepuru, P. and Saini, V. (2021), "Job crafting and psychological capital: a multi-level study of their effects on innovative work behaviour", *Team Performance Management*, Vol. 27 No. 1, pp. 145-158, doi: [10.1108/tpm-08-2020-0068](https://doi.org/10.1108/tpm-08-2020-0068).
- Walumbwa, F.O., Peterson, S.J., Avolio, B.J. and Hartnell, C.A. (2010), "An investigation of the relationships among leader and follower psychological capital, service climate, and job performance", *Personnel Psychology*, Vol. 63 No. 4, pp. 937-87863, doi: [10.1111/j.1744-6570.2010.01193.x](https://doi.org/10.1111/j.1744-6570.2010.01193.x).
- Walumbwa, F.O., Luthans, F., Avey, J.B. and Oke, A. (2011), "Authentically leading groups: the mediating role of collective psychological capital and trust", *Journal of Organizational Behavior*, Vol. 32 No. 1, pp. 4-24, doi: [10.1002/job.653](https://doi.org/10.1002/job.653).
- Wang, Z., Guan, C. and Cai, S. (2024), "How authentic leadership affects green creativity: the role of self-reflection and psychological capital", *Chinese Management Studies*, Vol. 18 No. 1, pp. 71-90, doi: [10.1108/cms-10-2021-0437](https://doi.org/10.1108/cms-10-2021-0437).
- Wright, T.A. (2003), "Positive Organizational Behavior: an idea whose time has truly come", *Journal of Organizational Behavior*, Vol. 24 No. 4, pp. 437-442, doi: [10.1002/job.197](https://doi.org/10.1002/job.197).
- Yildiz, H. (2019), "The interactive effect of positive psychological capital and organizational trust on organizational citizenship behavior", *Sage Open*, Vol. 9 No. 3, p. 215824401986266, doi: [10.1177/2158244019862661](https://doi.org/10.1177/2158244019862661).
- Youssef, C.M. and Luthans, F. (2013), "Psychological capital theory: toward a positive holistic model", *Advances in Positive Organizational Psychology*, Vol. 1, pp. 145-166, doi: [10.1108/s2046-410x\(2013\)0000001009](https://doi.org/10.1108/s2046-410x(2013)0000001009).
- Yuwono, H., Kurniawan, M.D., Syamsudin, N., Eliyana, A., Saputra, D.E.E., Emur, A.P. and Jalil, N.I.A. (2024), "Do psychological capital and transformational leadership make differences in organizational citizenship behavior?", *PloS One*, Vol. 18 No. 12, p. e0294559, doi: [10.1371/journal.pone.0294559](https://doi.org/10.1371/journal.pone.0294559).
- Ziyae, B., Mobaraki, M.H. and Saeediyoun, M. (2015), "The effect of psychological capital on innovation in information technology", *Journal of Global Entrepreneurship Research*, Vol. 5, pp. 1-12, doi: [10.1186/s40497-015-0024-9](https://doi.org/10.1186/s40497-015-0024-9).

### Further reading

- Agarwal, P. and Farndale, E. (2017), "High-performance work systems and creativity implementation: the role of psychological capital and psychological safety", *Human Resource Management Journal*, Vol. 27 No. 3, pp. 440-458, doi: [10.1111/1748-8583.12148](https://doi.org/10.1111/1748-8583.12148).
- Chen, S.L. (2018), "Cross-level effects of high-commitment work systems on work engagement: the mediating role of psychological capital", *Asia Pacific Journal of Human Resources*, Vol. 56 No. 3, pp. 384-401, doi: [10.1111/1744-7941.12144](https://doi.org/10.1111/1744-7941.12144).
- Firestone, J. and Cole, L. (2016), "Exploring positive psychological capital in nonprofit human service organizations", *Human Service Organizations: Management, Leadership and Governance*, Vol. 40 No. 2, pp. 118-130, doi: [10.1080/23303131.2015.1120249](https://doi.org/10.1080/23303131.2015.1120249).
- 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*, Vol. 54 No. 6, pp. 891-905, doi: [10.1002/tie.21510](https://doi.org/10.1002/tie.21510).
- Yang, Y. and Danes, S.M. (2015), "Resiliency and resilience process of entrepreneurs in new venture creation", *Entrepreneurship Research Journal*, Vol. 5 No. 1, pp. 1-30, doi: [10.1515/erj-2013-0076](https://doi.org/10.1515/erj-2013-0076).

### Corresponding author

Thanh D. Nguyen can be contacted at: [thanhd@hub.edu.vn](mailto:thanhd@hub.edu.vn)