

## PSYCHOLOGICAL CAPITAL AND ORGANISATIONAL COMMITMENT AMONG EMPLOYEES IN AI-DRIVEN WORK ENVIRONMENTS: A REVIEW

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### Abstract:

The rapid growth of artificial intelligence (AI) across industries has reshaped contemporary workplaces, generating both opportunities and psychological challenges for employees. While AI-driven systems enhance efficiency, they also introduce uncertainty, job redesign, and increased cognitive demands (Brynjolfsson & McAfee, 2017). Psychological capital (PsyCap) defined as a positive psychological state comprising hope, efficacy, resilience, and optimism (Luthans et al., 2007) has emerged as a crucial internal resource influencing how employees perceive and respond to technological change. This review synthesises research on the relationship between PsyCap and organisational commitment in AI-driven workplaces. Evidence from digital transformation and automation research suggests that higher PsyCap predicts stronger affective and normative commitment (Meyer & Allen, 1991; Avey et al., 2011), greater adaptability, and reduced turnover intention. PsyCap appears to buffer the negative effects of AI-related anxiety and job insecurity (Peterson, 2021), enabling employees to interpret technological disruption more positively. Mediating factors such as perceived organisational support and digital self-efficacy (Newman et al., 2014) further strengthen this relationship, while leadership moderates it. Despite promising findings, AI-specific empirical studies are limited. The review identifies key gaps and offers future directions for research and organisational practice.

**Keywords:** Psychological Capital, Organisational Commitment, Artificial Intelligence, Employee Well-Being, Digital Transformation, Workplace Psychology

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### Introduction:

Artificial intelligence has become a defining feature of modern organisational functioning, reshaping decision-making, task execution, and workflow structures (Brynjolfsson & McAfee, 2017). AI enhances productivity and innovation but also introduces techno-stress, job insecurity, and ambiguity about future work roles (Bondarouk & Brewster, 2022). These changes can influence employees' psychological connections to their organisations. Psychological capital (PsyCap) has emerged as a key adaptive resource during such transitions. As a higher-order construct characterised by hope, resilience, efficacy, and optimism (Luthans et al., 2007), PsyCap enables employees to navigate uncertainty with confidence and emotional stability. Organisational commitment, defined

as a psychological attachment consisting of affective, continuance, and normative dimensions (Meyer & Allen, 1991) is particularly sensitive to disruptive technological change.

Thus, examining how PsyCap influences organisational commitment in AI-driven environments is essential for understanding employee well-being and retention during digital transformation. Further, as organisations increasingly integrate intelligent systems into core operations, understanding employees' psychological readiness becomes crucial. Enhanced PsyCap may not only buffer negative reactions to technology but also foster proactive engagement, adaptability, and long-term loyalty, making it a vital construct in contemporary organisational research.

### **Psychological Capital:**

Psychological capital refers to a set of positive psychological resources that are state-like and can be developed (Luthans et al., 2015). Each dimension plays a specific role during AI-induced change:

- Hope helps employees generate pathways to new work demands.
- Self-efficacy supports mastery of AI-related tasks.
- Resilience enables recovery from technological challenges (Kim et al., 2022).
- Optimism fosters positive expectations regarding AI's role in future work.

PsyCap has been linked with adaptability, performance, and well-being (Avey et al., 2011), making it a strong psychological buffer in fast-changing AI workplaces.

In addition, high levels of PsyCap can promote psychological safety, enabling employees to experiment with new technologies without fear of failure. Employees with strong PsyCap are more likely to embrace continuous learning, an essential requirement in AI-enhanced environments. Furthermore, PsyCap helps reduce emotional exhaustion and fosters constructive coping, which supports smoother behavioural and cognitive adjustment during digital transformation. As organisations undergo rapid technological shifts, cultivating PsyCap becomes a strategic approach to enhancing employee motivation, sustaining commitment, and promoting long-term organisational effectiveness.

### **Organisational Commitment:**

Organisational commitment includes emotional attachment (affective), perceived costs of leaving (continuance), and moral obligation (normative) (Meyer & Allen, 1991). AI may affect these dimensions differently. For example, automation may reduce affective commitment if employees feel devalued, whereas reskilling investments may strengthen normative or affective commitment (Peterson, 2021).

PsyCap is particularly relevant here because individuals with higher positive psychological resources tend to maintain stronger emotional stability and attachment during organisational change (Newman et al., 2014).

In AI-driven workplaces, employees with strong PsyCap may perceive technological advancements as opportunities rather than threats, enabling them to remain committed even amid role transformations. They are more likely to interpret organisational support initiatives—such as training, communication, and skill enhancement—as signals of care, thereby increasing affective and normative commitment. Additionally, high PsyCap helps reduce uncertainty and perceived risks, which can stabilise continuance commitment by enhancing

confidence in long-term growth within the organisation. Thus, PsyCap acts as a psychological anchor during technological disruption.

#### **AI-Driven Work Environments:**

AI-driven environments include automation, machine learning, predictive analytics, and algorithmic decision-making (Qureshi et al., 2023). These changes require adaptability, digital skills, and continuous learning. However, they may also increase techno-anxiety and job insecurity, influencing commitment levels (Bondarouk & Brewster, 2022).

Employees with high PsyCap often interpret technological change as a challenge rather than a threat (Kim et al., 2022), allowing them to maintain stronger organisational bonds.

Furthermore, AI integration alters job structures, collaboration patterns, and performance expectations, making psychological readiness crucial for sustained engagement. Employees with strong PsyCap are more likely to trust organisational decisions, adjust to data-driven systems, and stay motivated during transformation. They tend to exhibit proactive learning behaviours, which help them navigate evolving job demands confidently. In contrast, employees with low PsyCap may struggle with ambiguity, amplifying stress and reducing commitment. Thus, AI-driven environments highlight the importance of cultivating positive psychological resources to support resilience, adaptability, and long-term organisational alignment.

#### **Relationship Between PsyCap and Organisational Commitment in AI Contexts:**

Research shows a strong connection between psychological capital (PsyCap) and organisational commitment. Studies, including meta-analyses, consistently report that employees with higher PsyCap tend to hold more positive attitudes toward their jobs and feel more committed to their organisations (Avey et al., 2011). In fast-changing, AI-driven workplaces, this link becomes even more important.

#### **Key Evidence:**

- PsyCap strengthens effective commitment because it helps employees stay emotionally balanced during change (Newman et al., 2014).
- High resilience and self-efficacy reduce the stress that comes from working with or learning new AI systems (Kim et al., 2022).
- Optimistic employees are less likely to view automation as a threat and more likely to see it as an opportunity (Peterson, 2021).
- Hope encourages persistence and motivation, which are especially helpful when employees must upskill to meet new AI-related demands (Luthans et al., 2007).

Overall, PsyCap works as a powerful psychological resource that helps employees remain committed, even when AI introduces uncertainty and major changes in their work environment.

#### **Mediators and Moderators:**

##### **Mediators-**

- Perceived organisational support (POS) strengthens the PsyCap–commitment pathway (Newman et al., 2014).

- Digital self-efficacy grows with higher PsyCap, improving engagement with AI (Qureshi et al., 2023).
- Learning orientation is enhanced by PsyCap and improves adaptation to AI.

**Moderators:**

Leadership style: Transformational and empowering leadership amplify the positive effects of PsyCap (Avey et al., 2011).

- AI exposure level: High-AI environments make PsyCap even more essential.
- Organisational culture: Supportive cultures strengthen the PsyCap–commitment relationship.

**Critical Analysis:**

Research consistently shows that PsyCap has a strong and positive link with organisational commitment (Newman et al., 2014). Employees who feel hopeful, confident, resilient, and optimistic generally stay more connected to their organisation, even during times of change. However, the existing literature still has important gaps.

Many studies examine digital transformation in general, rather than focusing specifically on AI-driven disruption (Bondarouk & Brewster, 2022). As a result, unique challenges created by AI—such as algorithmic stress, fear of automation, or over-reliance on data systems—are not well understood. Another limitation is that most research uses self-report questionnaires, which may introduce bias because participants assess themselves and their commitment at the same time.

Additionally, much of the available work is cross-sectional, capturing only a single moment instead of tracking how PsyCap and commitment change over time during AI adoption. Cultural factors are also rarely explored, even though countries and organisations differ widely in risk tolerance, power distance, and attitudes toward technology.

Despite these limitations, existing findings consistently highlight that PsyCap plays a crucial role in helping employees stay committed during technological transitions. This suggests that developing PsyCap may be an effective strategy for organisations navigating AI-based change.

**Implications for Practice:**

To maintain strong organisational commitment during AI-related changes, organisations need to actively support employees throughout the transition. One effective approach is to introduce PsyCap development programs (Luthans et al., 2015), which help employees build hope, confidence, resilience, and optimism. Clear and transparent communication about how AI will be used also reduces fear and uncertainty (Peterson, 2021).

Supportive and transformational leaders play a key role by encouraging employees, addressing concerns, and modelling a positive attitude toward technological change. Creating a learning-focused culture makes employees feel safe to experiment, ask questions, and grow. Additionally, offering structured reskilling and training opportunities ensures that employees feel capable of meeting new AI-related demands.

Together, these practices help employees feel valued, supported, and psychologically ready for AI integration, which strengthens their commitment to the organisation.

**Future Research Directions:** Future work should -

- Focus on AI-specific psychological constructs, such as automation anxiety
- Employ longitudinal designs to track PsyCap during AI rollout
- Test multi-level models considering team-level PsyCap and leadership
- Explore cross-cultural differences in AI acceptance and PsyCap
- Develop validated AI-exposure and AI-stress scales

**Conclusion:**

Psychological capital plays an essential role in helping employees remain committed to their organisations during AI-driven changes. As workplaces adopt more AI tools and automated processes, employees often face uncertainty and shifting job expectations. Developing strong PsyCap through hope, optimism, resilience, and self-efficacy can help them cope with these challenges more confidently and maintain a positive connection with their organisation.

Although research still has gaps, especially in understanding AI-specific experiences, existing findings consistently show that PsyCap strongly supports employee well-being, adaptability, and long-term loyalty. This makes PsyCap a valuable resource for organisations aiming to sustain commitment during ongoing technological transformation.

Looking ahead, organisations that proactively invest in enhancing employees' PsyCap may find it easier to navigate rapid technological disruptions. Strengthening PsyCap not only empowers individuals to embrace change but also creates a more stable, motivated, and future-ready workforce. As AI continues to reshape job roles, nurturing PsyCap will remain a strategic factor in maintaining organisational cohesion and reducing turnover intentions.

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