

THE ROLE OF DIGITAL AGILITY AND HUMAN-AI COLLABORATION IN ENHANCING EMPLOYEE CREATIVITY IN DIGITAL ORGANIZATIONS

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ABSTRACT

Digital transformation has fundamentally reshaped organizational environments by integrating digital technologies and artificial intelligence (AI) into core business processes. As organizations increasingly rely on algorithmic systems, automation tools, and digital platforms, employee creativity has become a critical driver of sustainable competitive advantage. While technology enables efficiency and data-driven decision-making, innovation ultimately depends on human adaptability and collaborative capability. However, existing research often treats technological capability and human creativity as separate constructs, leaving limited understanding of how digital agility and human-AI collaboration jointly influence employee creativity.

This conceptual paper explores how digital agility and human-AI collaboration contribute to employee creativity in digital organizations. Drawing upon dynamic capability theory, the Technology Acceptance Model (TAM), creativity theory, and digital innovation literature, the study develops a theoretical framework explaining how adaptive digital competencies and AI augmentation mechanisms foster innovative behavior. Digital agility enhances employees' capacity to respond flexibly to technological change, while human-AI collaboration strengthens cognitive augmentation and problem-solving performance.

The paper proposes theoretical propositions and discusses managerial implications for organizations seeking to leverage AI without undermining intrinsic motivation. By integrating dynamic capability and augmentation perspectives, this study contributes to digital transformation research and offers directions for future empirical investigation.

Keywords: Digital Agility, Human-AI Collaboration, Employee Creativity, Digital Transformation, Innovation

1.1 Digital Transformation and Organizational Change

Digital transformation refers to the strategic integration of digital technologies into organizational structures and processes to create value (Vial, 2019). It involves not only technological investment but also cultural change and capability development. Westerman, Bonnet, and McAfee (2014) argue that digitally mature organizations outperform competitors because they align digital initiatives with leadership and workforce capability.

Kane et al. (2015) further emphasize that digital transformation success depends more on organizational mindset and employee adaptability than on technological sophistication alone. Therefore, digital transformation should be conceptualized as a socio-technical system in which human capability plays a central role.

1.2 Digital Agility and Dynamic Capability Theory

Dynamic capability theory (Teece, Pisano & Shuen, 1997) suggests that organizations achieve competitive advantage through sensing, seizing, and transforming opportunities in dynamic environments. At the employee level, digital agility reflects the individual capacity to adapt quickly to digital tools, platforms, and AI systems.

Digital agility includes technological learning ability, experimentation behavior, openness to innovation, and rapid skill updating. Bharadwaj (2000) notes that IT capability contributes to performance when combined with strategic flexibility. Similarly, Nambisan et al. (2017) describe digital innovation as a recombination process enabled by digital technologies.

Employees with high digital agility are more likely to experiment with AI analytics, cloud platforms, and collaborative technologies. This experimentation enhances cognitive flexibility, a core component of creativity (Amabile, 1996).

1.3 Human-AI Collaboration and Augmentation

AI adoption has shifted organizational focus from automation to augmentation. Huang and Rust (2018) propose that AI performs mechanical and analytical tasks efficiently, while humans contribute emotional and creative intelligence.

Davenport and Ronanki (2018) argue that AI systems create value when supporting decision-making rather than replacing employees. Brynjolfsson and McAfee (2017) describe complementarity between human judgment and machine intelligence.

However, excessive AI monitoring may increase technostress (Tarafdar et al., 2015), reducing intrinsic motivation and creativity. Therefore, balanced human-AI collaboration is essential for sustaining innovative behavior.

1.4 Employee Creativity

Employee creativity refers to the generation of novel and useful ideas (Oldham & Cummings, 1996). Amabile (1996) emphasizes that creativity arises from domain expertise, creativity-relevant processes, and intrinsic motivation.

Digital environments provide broader access to knowledge and cross-functional collaboration, which can stimulate idea recombination. Zhang and Bartol (2010) show that empowering leadership enhances creative performance by increasing psychological empowerment.

Thus, digital agility and AI collaboration may jointly enhance employee creativity when autonomy and support are maintained.

THEORETICAL FRAMEWORK

This study proposes an integrated framework linking digital agility and human-AI collaboration to employee creativity.

Digital agility functions as an individual-level dynamic capability that enables employees to adapt to technological change. Human-AI collaboration functions as a technological augmentation mechanism that enhances analytical insight and cognitive processing.

Together, they create a synergistic environment for innovation.

PROPOSITIONS

Proposition 1: Digital agility positively influences employee creativity.

Proposition 2: Human-AI collaboration positively influences employee creativity.

Proposition 3: Digital agility strengthens the positive relationship between human-AI collaboration and employee creativity.

Proposition 4: Organizational support moderates the relationship between digital agility and creativity.

MANAGERIAL IMPLICATIONS

Organizations should invest in digital literacy training to enhance agility. Continuous learning programs improve employees' confidence in using AI systems.

Managers should position AI as a collaborative partner rather than a replacement tool to reduce anxiety and technostress.

Leadership should encourage experimentation and autonomy, fostering intrinsic motivation.

Finally, digital transformation strategies must integrate human-centered design principles to balance efficiency with creativity.

FUTURE RESEARCH DIRECTIONS

Future research should empirically test the proposed propositions using quantitative methods. Cross-cultural comparisons may reveal differences in AI acceptance and digital agility.

Longitudinal studies could examine how digital agility develops over time. Researchers may also explore mediating variables such as trust in AI and psychological empowerment.

CONCLUSION AND FUTURE WORK

This conceptual paper explains how digital agility and human-AI collaboration enhance employee creativity in digital organizations. Technology alone does not generate innovation; rather, adaptive human capability and balanced AI collaboration determine creative outcomes.

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