Enhancing or Hindering Creativity? The Impact of Generative AI on Workers' Creative Self-Efficacy

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Introduction. Generative AI (GAI) is expected to add up to $275 billion to profits in the fashion and luxury sectors in the next five years (Harreis et al., 2023). Beyond areas such as supply chain management or product search or discovery, where GAI is used for data analysis (Business of Fashion, 2024), AI adoption has also expanded to creative tasks (e.g., product development, marketing, and photoshoots; Hafeez, 2024). Recently, H&M announced using AI-generated images for marketing using digital twins of human models (Bain, 2025). With this trend, AI has not only threatened workers' job security but also blurred the boundaries between human and AI-driven creative activities (Kelly, 2024). Existing studies have emphasized the potential of AI to enhance creativity (Eapen et al., 2023; Wu & Li, 2025), considering its function in generating new outputs, such as images and videos, from unstructured input (Harreis et al., 2023). However, the impact of GAI use on workers' creativity remains relatively unexplored. Whether AI enhances or hinders workers' creativity is controversial (Magni et al., 2024). Additionally, the motivations for adopting AI tools vary, including a sense of achievement, efficiency, curiosity, pressure, or the desire to avoid feeling left behind. Therefore, this study aims to develop a conceptual model to explain workers' motivations for using AI and its impact on their creativity.

Literature Review and Conceptual Model Development. Creativity is defined as an individual's ability to produce original and novel ideas by combining associative elements into new ideas that are useful (Childs et al., 2022). Traditionally, creativity has been measured by assigning creative tasks to study participants and evaluating the outcomes. However, this study focuses on creative self-efficacy, examining how individuals perceive themselves in terms of creative competency. Creative self-efficacy is a psychological process that influences an individual's self-confidence in generating novel ideas. It is rooted in their beliefs about their ability to think and perform creatively (Tierney & Farmer, 2011).

The Dual-Process Model of Creative Thinking (DPM; Sowden et al., 2015), based on the Structure of Intellect Model (SIM; Guilford, 1956; Guilford, 1967), is adopted in this study to explore two creative thinking mechanisms: divergent and convergent thinking (i.e., creativity diamond framework; Childs et al., 2022). Divergent thinking involves exploring possible solutions to a problem and generating a wide range of ideas (Dechaume et al., 2024). Convergent thinking is the ability to evaluate, analyze, and synthesize information, narrowing it down to the best idea, and it requires logical reasoning skills (Dechaume et al., 2024). While divergent thinking is often used in the preparation and incubation phases, convergent thinking is needed in the inspiration and verification phases according to the four stages of the creative process (Sadler-Smith, 2015).

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Additionally, this study incorporated creative self-efficacy and the driving factors of GAI use, based on the Avoidance Achievement Motivation framework, to explore how creative thinking and creative self-efficacy may be influenced by users' motivation to use AI tools. Achievement motivation is associated with an individual's competence-related behavior and successful activity (Elliot & Sheldon, 1997). In contrast, avoidance motivation is linked to individuals' fear of failure and anxiety about adverse outcomes (Schuler et al., 2013). Intrinsic and extrinsic motivations (Ryan & Deci, 2000) were also considered in the model to examine the relationship between creative self-efficacy and the source of motivation—whether it is from an individual's enthusiasm and inherent interest or the desire to obtain a reward or avoid punishment (e.g., Receiving a low-performance score or being seen as falling behind colleagues at work).

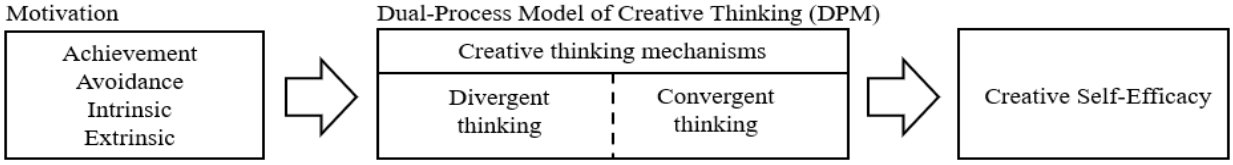
Depending on their motivation, workers engage with AI through divergent, convergent, or both types of thinking. Achievement motivation could facilitate active AI engagement in both divergent and convergent thinking, while avoidance motivation may hinder this involvement with AI and cause disappointment with the outcome (Kadyirov et al., 2024). Intrinsic motivation could enhance active engagement in divergent and convergent thinking processes through AI interaction, expanding creative self-efficacy (Wolf & Maier, 2024), whereas extrinsic motivation may have little impact on both thinking processes and confidence in creative work.

Research on workers' dual-process thinking and creativity in the context of GAI has mainly focused on enhancing creativity by supporting divergent thinking, which links concepts in unconventional ways beyond traditional human heuristics. (Grilli & Pedota, 2024). However, AI can hinder users' creative processes by disrupting their conceptual space and limiting opportunities to explore creative approaches independently (Boden, 2010). It can also limit originality by generating similar outcomes (e.g., verbal or visual) during idea generation, preventing workers from thinking beyond what is presented and ultimately influencing their self-confidence in creativity. In the convergent thinking process, AI can assist in analyzing and synthesizing ideas and suggesting optimal solutions for a given task. However, AI generates solutions instantly without offering core insights into the creative process, potentially discouraging deep engagement with tasks and processes (Guilford, 1967; Kumar et al., 2024).

Therefore, the following conceptual model has been developed, considering that workers' AI experience, driven by motivation, may shape their thinking mechanisms and impact creative self-efficacy in various ways (Figure 1).

Figure 1

Conceptual Research Model



Discussion and Conclusion. The conceptual model offers practical implications for the workplace by understanding the motivation behind AI use and associated creative thinking mechanisms. In the areas that require creative work, such as design and

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marketing, in the fashion industry, it can foster the balanced adoption of AI by guiding on developing strategic task assignments aligned with individual strengths in either divergent or convergent thinking and AI collaboration processes that enhance workers' creative self-efficacy.

This study also provides implications for higher education, as similar challenges arise with AI applications in classrooms. In particular, it can help faculty and students by understanding the various motivations for using AI tools and their influence on students' creative self-efficacy and outcomes and by identifying when AI tools can be effectively incorporated, whether during brainstorming or evaluation stages of class projects.

Future studies can expand the model by including factors related to technology perceptions, such as perceived usefulness and perceived ease of use (Davis, 1989), considering the technical limitations of current AI image-generating tools, including similar outcomes, difficulties in modifying images, and challenges in producing output with consistency. Additionally, self-regulation (Zimmerman, 2000), the ability to monitor, evaluate, and adjust learning efforts, can also be included. While the research model is conceptual, it can be empirically tested using quantitative methods in the next phase.

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