How Does a Generative AI Teammate Influence Team New Product Idea Generation? A Team Process Perspective

Authors: Zheng Yu, Shen Yi, Wu Yueyan, Wu Yueyan

Date: 2025-06-14T17:46:11+00:00

Abstract

Generative AI agents, powered by generative artificial intelligence (also known as generative AI) technology, possess remarkable emergent intelligence capabilities that can help humans break through mental sets, becoming new members of corporate new product development teams—generative AI teammates. However, their effectiveness in commercial practice and impact on team creativity remain controversial. This study follows the theoretical logic framework of the team effectiveness IPO model and, focusing on the three stages of "divergent-convergent-formation" in team new product idea generation, conducts three sub-studies to deeply investigate the impact of generative AI teammates on team new product idea generation performance from a team perspective. Specifically, Sub-study 1 focuses on the idea divergence stage, investigating the cognitive fixation mechanism underlying the inhibitory effect of generative AI teammates from the perspective of team task processes, and identifying mitigation strategies; Sub-study 2 examines the idea convergence stage, exploring the social identification mechanism behind the strengthening effect of generative AI teammates from the perspective of team affective processes, and proposing enhancement strategies; Sub-study 3 targets the idea formation stage, systematically exploring the double-edged sword effect of generative AI teammates and constructing corresponding coping strategies. This study breaks through the research limitations of previous studies that only examined the impact of AI agents at the individual level, extending human-AI collaboration strategies from the one-person-one-machine context to the multi-person-one-machine scenario, thereby providing not only practical insights for corporate new product development teams to effectively utilize generative AI teammates, but also important decision-making references for the Chinese government to comprehensively implement the "AI+" initiative.

Full Text

Preamble

How do generative AI teammates affect team new product idea generation? A perspective from team process

ZHENG Yu[1], CHEN Yi[2], WU Yueyan[3], *

([1] School of Business Administration, Zhongnan University of Economics and Law, Wuhan 430073, China) ([2] Business School of Hunan University, Changsha 410082, China) ([3] School of Economics and Management, Fuzhou University, Fuzhou 350108, China)

Abstract: Generative AI agents, powered by generative artificial intelligence (also known as generative AI) technology, exhibit remarkable emergent intelligence capabilities that can help humans break through cognitive fixedness, positioning them as new members of corporate new product development teams—generative AI teammates. However, their practical effectiveness and impact on team creativity remain contentious. Following the theoretical logic of the Input-Process-Output (IPO) model of team effectiveness, this study investigates the influence of generative AI teammates on team performance in new product idea generation from a team perspective. Based on the three distinct phases of new product idea generation—divergence, convergence, and formation—this research comprises three sub-studies. Sub-study 1 focuses on the divergence phase, exploring the cognitive fixation mechanism underlying the inhibitory effect of generative AI teammates from the perspective of team task processes and identifying related mitigation strategies. Sub-study 2 addresses the convergence phase, examining the social identification mechanism behind the enhancing effect of generative AI teammates from the perspective of team affective processes and proposing related enhancement strategies. Sub-study 3 targets the formation phase, systematically exploring the double-edged sword effect of generative AI teammates and constructing corresponding coping strategies. This research advances beyond prior studies limited to the individual level by extending human-AI collaboration strategies from one-human-one-AI contexts to multi-human-one-AI scenarios. The findings not only provide practical insights for NPD teams seeking to effectively utilize generative AI teammates but also offer significant decision-making references for the Chinese government in implementing the "AI+" initiative.

Keywords: generative artificial intelligence, new product development team, new product idea generation, human-AI team collaboration strategy

*Corresponding Author: WU Yueyan, E-mail: yueyan.wu@fzu.edu.cn

1. Research Background and Problem Statement

Technology is the primary productive force. As the representative of cutting-edge technology, generative AI agents powered by generative artificial intelli-

gence technology possess astonishing emergent intelligence capabilities and are leading a new round of technological revolution and industrial transformation. With breakthrough advances in underlying algorithmic models such as Generative Adversarial Networks (GANs), Variational Autoencoders (VAEs), and Transformer models, generative AI agents manifesting as embedded intelligent tools (e.g., DeepSeek, ChatGPT), virtual robots (e.g., iFlytek virtual humans, Soul Machines[2]), and physical robots (e.g., Sophia[3], Mika[4]) can rapidly generate new content in various forms including text, images, audio, and video, demonstrating high-efficiency, diversified content creation capabilities (Luo et al., 2023). Facing this major historical opportunity of generative AI technological development, China's "New Generation Artificial Intelligence Development Plan" emphasizes the necessity of large-scale promotion of AI new technology applications in enterprises' core business areas such as design, production, and management to build new organizational structures and operational modes. "AI+" was also written into the "2024 Government Work Report" for the first time.

Because generative AI agents can not only interact bidirectionally with humans using natural language but also leverage global information to rapidly create new content and help humans break through cognitive fixedness, enterprises have widely applied them to creative practices in new product development teams, enabling multiple human team members to simultaneously engage in team-based interaction with generative AI agents to jointly generate new product ideas (He et al., 2022; Xu et al., 2024). This has created a new multi-human-one-AI collaboration scenario. Generative AI agents have thus become important new members of enterprise new product development teams—generative AI teammates (as shown in Figure 1

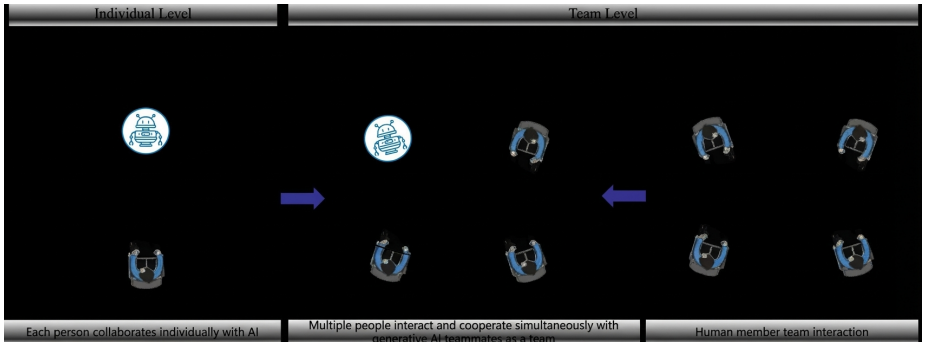

Figure 1: Figure 1

). For example, ChatGPT, a typical representative of generative AI agents, launched a team function (ChatGPT Team) that allows multiple human team members to share the same ChatGPT dialogue box and simultaneously engage in team-based interaction with it[5]. In other words, this group-chat-like function enables all human team members to see in real-time the interaction content

between other members and ChatGPT and participate in further interactive discussions about this content at any time. In this context, ChatGPT plays the role of an independent team member and becomes a new partner for human members' teamwork (Xu et al., 2024). Additionally, virtual robots developed by Soul Machines have become important virtual members of human teams, capable of independently participating in team interaction and cooperation like human team members (Dennis et al., 2023). Supported by this technology, Stitch Fix has allowed generative AI agents to join designer teams to co-design new clothing (Harreis et al., 2023), and a British retailer's creative team has designed entirely new content marketing solutions together with generative AI teammates (Raisch & Fomina, 2024).

Although generative AI teammates are gradually becoming important new members of corporate new product development teams, their practical effectiveness has been less than satisfactory, and their impact on team creativity remains controversial. For instance, creative designs generated by fashion enterprise creative teams with generative AI teammates have been questioned for lacking creative soul (Harreis et al., 2023), artworks co-created by human members of art design teams with Midjourney have been criticized for lacking emotional expression (Hutson, 2023), GitHub Copilot[6] joining teams has instead led to software development teams designing code with difficult-to-detect vulnerabilities (Nataraj, 2022), and the addition of generative AI teammates may prevent digital advertising enterprise creative teams from ever designing blockbuster advertising slogans again (Clarke & Chamorro-Premuzic, 2023). Moreover, preliminary research also indicates that ChatGPT usage narrows human creativity differences (Noy & Zhang, 2023), and physical intelligent robot teammates cause human team members to exhibit a "conformity effect" (Qin et al., 2022).

[6] GitHub Copilot is a generative AI programming tool jointly launched by Microsoft and OpenAI.

While generative AI teammates can help human team members break through cognitive fixedness and should theoretically enhance creativity in corporate new product development teams, why has practical effectiveness been less than satisfactory? What exactly are the mechanisms through which generative AI teammates influence team new product idea generation? How can new product development teams effectively utilize generative AI teammates to enhance creative performance? Clearly, these questions represent not only important practical management issues faced by enterprises but also significant obstacles to whether China can effectively guide enterprises to apply AI new technology in core business areas and achieve the strategic goals of the new generation AI development plan as scheduled.

Unlike human team members, generative AI teammates possess unique cognitive and social characteristics. Their addition changes the team composition of new product development teams and may profoundly affect the team processes of human team member interaction and cooperation (Dennis et al., 2023), as well as the team's final new product idea generation performance. Specifically,

although generative AI teammates demonstrate human-like understanding and creative abilities (Li & Deng, 2023), they differ fundamentally from human team members in cognitive approaches and content creation logic (Raisch & Fomina, 2024). Their super-strong information processing and logical elaboration capabilities may affect human team members' thinking and interaction (Brodbeck et al., 2007). Meanwhile, generative AI teammates can interact with human team members using natural language but belong to completely different social categories (Złotowski et al., 2017). Their unique social characteristics may also influence human team members' social interaction and cooperation (Dennis et al., 2023). Therefore, as new members of new product development teams, generative AI teammates, with their distinct individual characteristics, change the team's original composition and may profoundly affect human team members' interaction and cooperation, as well as the team's final new product idea generation performance.

Unfortunately, existing research has paid insufficient attention to the role of generative AI teammates in new product development teams, neither systematically analyzing how they reshape interaction and cooperation mechanisms among human members nor exploring strategies for multi-human-one-AI collaboration practices. Specifically, existing research has focused on all-human new product development teams, examining the effects of team composition characteristics and individual member traits, such as the influence of team members' professional fields and cognitive diversity (Criscuolo et al., 2017) and the roles played by creative members and detail-oriented members (Miron-Spektor et al., 2011), while lacking focused attention to generative AI teammates as new members of new product development teams (Wu et al., 2023). Second, research has emphasized revealing AI agents' influence mechanisms on individual psychology or behavior at the individual level, such as helping individuals overcome rigid thinking and cognitive path dependence (Yi et al., 2023) but also enhancing individuals' identity threat (Złotowski et al., 2017) and job threat perceptions (Wang et al., 2019), without revealing from the team level the mechanisms through which generative AI teammates affect human members' team interaction and cooperation. Third, research has primarily focused on one-human-one-AI collaboration strategies, such as AI agent-assisted mode, AI agent cooperation mode, and AI agent-led mode (Fugener et al., 2022), neglecting multi-human-one-AI collaboration scenarios.

Thus, although generative AI teammates have become new team members and new product development teams have consequently adopted new team models, existing research has not yet addressed how the cognitive and social characteristics that differentiate generative AI teammates from human members will affect team processes of human teammate interaction and cooperation and the team's final new product idea generation performance. Existing research has called on scholars to jointly investigate the impact of generative AI agents on human social interaction and cooperation and to construct multi-human-one-AI collaboration strategies (Xu et al., 2024; Dennis et al., 2023).

Based on this, this study takes the impact of generative AI teammates on team new product idea generation performance from a team perspective as its research object. It will reveal the mechanisms through which generative AI teammates affect human team members' interaction and cooperation from a team process perspective, construct multi-human-one-AI collaboration strategies, and provide theoretical insights and practical implications for new product development teams to rationally utilize generative AI teammates and for the Chinese government to implement the "AI+" initiative.

2.1 New Developments in AI: Generative AI-Related Research

Artificial intelligence (also known as AI) technology is one of the most prominent cutting-edge technologies in the world today. Undoubtedly, AI technology development will bring disruptive impacts to social production efficiency, enterprise value creation models, and even human lifestyles (Li et al., 2023; Yao et al., 2024). Existing domestic and international research has meticulously traced the development history of AI technology and preliminarily explored the new characteristics of generative AI agents.

First, existing research has meticulously traced the development history of AI technology, recognizing the evolution from analytical AI technology to generative AI technology. Early AI technology mainly focused on supervised and unsupervised machine learning, known as analytical AI technology. At that time, the underlying algorithmic models of AI technology mainly included neural networks, genetic algorithms, and decision trees, relying on structured data for model construction to complete fast, accurate, and repeatable simple decision-making (Duan et al., 2019; Shrestha et al., 2019), primarily applied to domain-specific decision support such as financial forecasting and medical diagnosis. With breakthrough advances in algorithmic models such as Generative Adversarial Networks (GANs), generative AI agents manifesting as embedded intelligent tools, virtual robots, and physical robots possess high-efficiency, diversified content creation capabilities, marking the evolution of AI technology from analytical AI that could only analyze and predict to generative AI capable of completing creative content output through complex modeling (Dwivedi et al., 2023). Compared with analytical AI technology, generative AI technology, through complex algorithmic models such as large language models and Long Short-Term Memory (LSTM) models, not only endows generative AI agents with the ability to communicate bidirectionally with humans using natural language but also grants them the creative potential to break through human cognitive limitations (Kushwaha & Kar, 2021).

Second, existing research has preliminarily explored the new characteristics of generative AI agents, portraying their basic features from both cognitive and social aspects. From the cognitive perspective, although generative AI agents demonstrate human-like understanding and creative abilities (Li & Deng, 2023), they differ significantly from humans in cognitive approaches. On one hand, gen-

erative AI agents acquire information based on massive data analysis, theoretically possessing global knowledge. This enables generative AI agents' content creation to not be limited by cognitive path dependence. On the other hand, the essence of generative AI agents' content creation is probability-based knowledge recombination, lacking intuition based on unconscious processing of experience. This means that although generative AI agents may surpass humans in information processing and knowledge recombination, humans still have irreplaceable advantages in truly creative tasks requiring intuitive thinking and imagination (Raisch & Fomina, 2024). From the social perspective, although generative AI agents have the communication ability to interact bidirectionally with humans using natural language, their lack of perceived goodwill may profoundly affect human social interaction and cooperation (Dennis et al., 2023). Human social interaction and cooperation are extremely complex, including not only verbal communication but also non-verbal communication and emotional expression. Analytical AI technology, as a simple decision support tool, had very limited impact on human social interaction and cooperation, mainly confined to specific application domains (Shrestha et al., 2019). In contrast, generative AI agents supported by generative AI technology have the potential to profoundly affect human social interaction and cooperation, particularly in industries such as education, entertainment, and creativity (Dennis et al., 2023).

2.2 Team New Product Idea Generation-Related Research

Given that teams can not only break through individual cognitive limitations but also generate unexpected new ideas through member interaction and cooperation, enterprises typically form teams to generate new product ideas. Existing domestic and international research has deeply explored team new product idea generation, but generative AI teammates, as new members of new product development teams, and how their different characteristics from human members affect interaction and cooperation among human teammates and the team's final new product idea generation performance, remain to be explored.

First, existing research has focused on all-human new product development teams, deeply examining how team composition characteristics and individual member traits affect new product idea generation performance. From the perspective of composition characteristics, the professional fields and cognitive diversity of new product development teams significantly enhance their creative performance (Criscuolo et al., 2017). From the perspective of individual member traits, creative team members can effectively enhance the novelty of team new product ideas, while detail-oriented team members hinder the generation of highly novel new product ideas (Miron-Spektor et al., 2011).

Second, existing research has begun to examine the impact of AI agents on new product idea generation performance, attempting to explore their overall effects through case studies. Xiao et al. (2018) treated AI agents as digital avatars of ordinary consumers and explored through case studies how AI agents providing ordinary consumer demand information to new product development

teams enhances new product idea generation performance. However, this study only treated AI agents as information provision tools, not as new members of new product development teams. Building on this, Wu et al. (2023) explored through case studies the new product idea generation model of human-AI agent collaboration. However, this study mainly examined the impact of AI agents on new product idea generation from the individual level, without investigating from the team level the mechanisms through which generative AI teammates affect team new product idea generation performance.

2.3 Human-AI Collaboration-Related Research

As AI technology has evolved from analytical AI to generative AI, AI agents have transformed from simple decision support tools to collaborative partners for humans (He et al., 2022). Consequently, the impact of AI agents on human psychology and behavior, as well as human-AI collaboration strategies, has attracted high attention from domestic and international scholars (Xu et al., 2024). However, the mechanisms through which generative AI teammates affect human team members' interaction and cooperation, and multi-human-one-AI collaboration strategies, remain to be deeply explored.

First, existing research has examined the impact of AI agents on human individuals from psychological and behavioral perspectives. Psychologically, the development and popularization of AI technology have incorporated machine intelligence beyond humans into human society, threatening not only human individuals' perceived uniqueness (Złotowski et al., 2017) but also inevitably raising concerns about job issues and increasing job threat perceptions (Wang et al., 2019; Hentout et al., 2019). Meanwhile, AI agent usage also negatively affects human individuals' psychological trust in emotional states and social needs, leading humans to either over-rely on AI agents, resulting in "algorithm appreciation," or dislike AI agents, resulting in "algorithm aversion" (Luo et al., 2023). Behaviorally, AI agents can help human individuals overcome rigid thinking and escape cognitive path dependence (Yi et al., 2023), solving problems from more diverse perspectives, but AI agents' human-likeness also affects human individuals' emotional connection and subsequent collaborative behavior (Mahzoon et al., 2019).

Second, existing research has explored one-human-one-AI collaboration strategies from the perspectives of AI agents' roles and functions. Regarding AI agents' roles, human-AI collaboration modes can be distinguished into three types: AI agent-assisted mode, AI agent cooperation mode, and AI agent-led mode (Ren & Liu, 2017; Fugener et al., 2022; Metcalf et al., 2019). Regarding AI agents' functions, AI agents can play four different roles—substitution, augmentation, modification, and reshaping—during human-AI collaboration (Metcalf et al., 2019).

Third, existing research has begun to examine multi-human-one-AI scenarios where AI agents participate as independent team members in team interaction

and cooperation with multiple human members (Xu et al., 2024) and preliminarily explored the impact of AI agents on social interaction and cooperation among human teammates within teams (Dennis et al., 2023). For example, when human members perceive that AI teammates lack goodwill, team conflict levels may increase significantly (Dennis et al., 2023). However, related research has just begun, and many issues regarding the impact and internal mechanisms of AI teammates at the team level and multi-human-one-AI collaboration strategies urgently require scholars to conduct in-depth investigations (Xu et al., 2024; Dennis et al., 2023).

2.4 Team Effectiveness Model-Related Research

The team effectiveness model, also known as team effectiveness theory, is a theoretical framework focusing on how individual team member characteristics and various resources provided by enterprises to teams, through team members' interdependence and collaboration, affect team performance. According to the team effectiveness model, team process, as the key mediating mechanism connecting team inputs and team outputs, mainly comprises two core dimensions: task process and affective process. Team task process refers to the cognitive interaction process through which team members jointly complete team tasks or work, while team affective process refers to the socio-emotional interaction process through which team members establish, enhance, and regulate team psychological and emotional states (Mathieu et al., 2008).

Although research on team effectiveness models has continuously deepened since the 1960s, with theoretical frameworks continuously improved (Klotz et al., 2014), these models have consistently adopted an instrumental view of technology factors, treating them only as team support tools and examining their moderating roles in the theoretical framework. Currently, generative AI teammates have become important new members of corporate new product development teams and, with their cognitive and social characteristics different from human team members, have changed the team's original composition, potentially profoundly affecting team processes of human team member interaction and cooperation and, ultimately, team performance. Therefore, researchers urgently need to break through existing limitations of team effectiveness model research and treat generative AI teammates (technology factors) as team inputs to examine their direct effects on team processes and, ultimately, team outputs.

2.5 Summary

With breakthrough advances in underlying AI algorithmic models, generative AI agents can independently participate in team interaction and cooperation with multiple human members like human team members, becoming new partners for human teamwork (Xu et al., 2024), forming a new multi-human-one-AI collaboration scenario (Dennis et al., 2023). Supported by this technology, enterprises have widely adopted generative AI agents as important new members

of new product development teams—generative AI teammates. However, generative AI teammates differ fundamentally from human team members in cognitive characteristics such as content creation logic (Raisch & Fomina, 2024) and social characteristics such as social categories (Złotowski et al., 2017). Their addition changes the original team composition of new product development teams, potentially profoundly affecting team processes of human team member interaction and cooperation and, ultimately, team new product idea generation performance. Unfortunately, existing research presents a triple disconnect: first, new product development team research is confined to all-human scenarios, neglecting new team models with AI agents; second, AI agent research remains at the individual level, lacking a team-level perspective; third, human-AI collaboration research is limited to dyadic human-AI interaction, not extending to multi-agent human-AI teams. This fragmented state prevents accurate assessment of generative AI teammates' team value in new product development teams: it cannot explain how they affect innovation performance by changing human team members' cognitive interaction (e.g., idea stimulation), nor can it guide the design of multi-human-one-AI collaboration strategies. Meanwhile, reconstructing the team effectiveness model theoretical framework to include technology factors has become imperative.

3 Research Framework

This study takes the impact of generative AI teammates on team new product idea generation performance as its research object. Based on the theoretical logic of the team effectiveness IPO model and focusing on the three phases of "divergence-convergence-formation" in team new product idea generation, this research designs three sequentially progressive sub-studies, as shown in Figure 2

.

Study 1: The inhibitory mechanism and mitigation strategies of generative AI teammates on team idea divergence. Team new product idea generation begins with the idea divergence phase, where members seek as many diverse solutions as possible to a specific problem through different approaches and methods. The diversity of members' proposed ideas determines team performance in this phase. Study 1 intends to explore, from the team task process perspective, the inhibitory effect of generative AI teammates on the diversity of human members' idea generation and its internal mechanism. The study will reveal the mediating role of team cognitive fixation and examine the moderating role of team collaboration mode on the inhibitory effect.

Study 2: The enhancing mechanism and strengthening strategies of generative AI teammates on team idea convergence. The idea convergence phase is the intermediate stage of team new product idea generation, where team members' idea selection aggregation determines team performance. Study 2 intends to explore, from the team affective process perspective, the

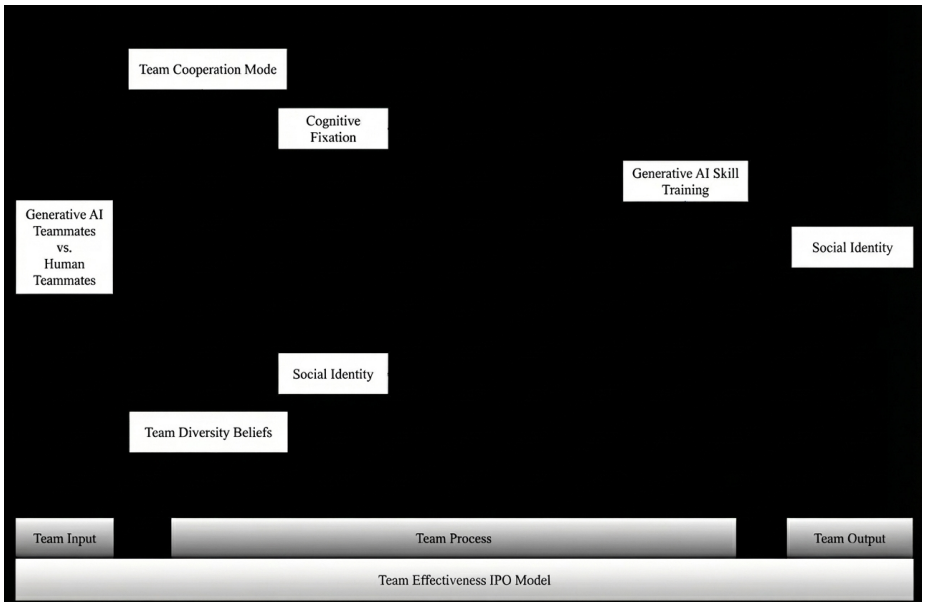

Figure 2: Figure 2

enhancing effect of generative AI teammates on human members' idea selection aggregation and its internal mechanism. The study will reveal the mediating role of team social identification and examine the strengthening role of team diversity beliefs on the enhancing effect.

Study 3: The double-edged sword effect and coping strategies of human members' creative interaction in generative AI teammate teams on new product idea performance. Team new product idea generation finally reaches the idea formation phase, where team members reach consensus on an optimal solution after experiencing idea divergence and convergence. Idea generation speed and quality are the ultimate manifestations of team new product idea performance. Building on Studies 1 and 2, Study 3 intends to explore the enhancing effect of human members' creative interaction (idea generation diversity and idea selection aggregation) in generative AI teammate teams on idea generation speed, the diminishing effect on idea generation quality, and their internal mechanisms. The study will also examine the moderating role of generative AI skills training.

It should be specifically noted that the team idea divergence phase and idea convergence phase are two mutually influential and co-evolving stages, and team task process and affective process are two interdependent and continuously transforming team processes. However, due to limited space, this study does not explore the interaction between these two phases of idea generation and these two processes of team interaction, leaving this for future in-depth

research.

3.1 Study 1: The Inhibitory Mechanism and Mitigation Strategies of Generative AI Teammates on Team Idea Divergence

Team new product idea generation begins with the idea divergence phase, where members seek as many diverse solutions as possible to a specific problem through different approaches and methods (Kaufman & Beghetto, 2009). The diversity of members' proposed ideas determines team performance in this phase. Study 1 intends to deeply explore, from the team task process perspective, the inhibitory effect of generative AI teammates on the diversity of human team members' idea generation, reveal the mediating role of team cognitive fixation, and examine the moderating role of team collaboration mode. The theoretical model of Study 1 is shown in Figure 3 [FIGURE:3].

Existing research indicates that although generative AI teammates demonstrate human-like understanding and creative abilities (Li & Deng, 2023), they still differ significantly from human team members in cognitive approaches. On one hand, generative AI teammates acquire information based on massive data analysis, theoretically possessing global knowledge and unrestricted content creation from path dependence (Raisch & Krakowski, 2021). This enables generative AI teammates' unrestricted information processing capabilities to allow them to search broader information spaces than human teammates and propose more diverse solutions based on analysis, association, and recombination logic (Alavi & Westerman, 2023; Raisch & Fomina, 2024). On the other hand, the essence of generative AI teammates' content creation is probability-based recombination of existing information, which cannot completely jump out of the information space generated by existing data analysis to truly create unprecedented knowledge (Clarke & Chamorro-Premuzic, 2023). Therefore, compared with generative AI teammates, human teammates still have advantages in creating truly novel problem solutions due to their intuition based on unconscious processing of past experiences (Kihlstrom, 1987) (Raisch & Fomina, 2024).

Although at the individual level, generative AI agents can, through their super-strong information processing and recombination capabilities, form new associations among existing information and propose diverse problem solutions that open human individuals' eyes (Alavi & Westerman, 2023), thereby helping human individuals overcome rigid thinking and escape cognitive path dependence (Yi et al., 2023). However, at the team level, compared with human teammates, generative AI teammates' super-strong information analysis, recombination, and tracing capabilities are more conducive to persuading other human team members to believe their viewpoints through data analysis, information association, and logical evidence elaboration (Brodbeck et al., 2007), thereby limiting human team members' thinking (Zhou, 2021) and prompting the entire team to form a consistent cognition regarding solutions to a specific problem.

Moreover, generative AI teammates' super-strong data analysis and logical evidence elaboration capabilities may also lead teams into a state of data and logical verification, which is not conducive to other human team members proposing their unique intuitions about a specific problem (Brodbeck et al., 2007), because human intuition arises from unconscious processing of past experiences (Kihlstrom, 1987) and is difficult to explain with data and logic why a person has such intuition and why one person's intuition differs from another's (Eling et al., 2015). In other words, compared with human teammates, generative AI teammates not only prompt other human team members to form consistent cognitions about solutions to a specific problem but may also hinder them from proposing their unique ideas. At this point, the team's cognitive diversity advantage over individuals will be significantly reduced, and team cognitive fixation will be significantly increased.

Existing research indicates that team cognitive fixation significantly reduces the diversity of human members' idea generation (Chen et al., 2019; Zhou, 2021). Specifically, high levels of team cognitive fixation mean that human team members focus too much on or are constrained by ideas proposed by other members, unable to form and propose their unique ideas, especially their intuitions, ultimately leading to low diversity of ideas proposed during the team idea divergence phase (Zhou, 2021). Conversely, low levels of team cognitive fixation mean that human team members have differentiated cognitions about a specific problem. At this point, human team members not only propose highly diverse ideas but may also generate unexpected new ideas through sharing and interaction.

Based on this, this study proposes that compared with human teammates, generative AI teammates will increase team cognitive fixation, thereby reducing the diversity of human members' idea generation. The study advances the following hypotheses:

Hypothesis 1: Generative AI teammates will reduce the diversity of human members' idea generation.

Hypothesis 2: The effect of generative AI teammates on the diversity of human members' idea generation is mediated by team cognitive fixation.

The team collaboration mode of new product development teams can effectively mitigate generative AI teammates' constraints on human team members' thinking. In enterprise practice, new product development team collaboration modes can be divided into nominal group and interactive group types (Gallupe et al., 1991; Rietzschel et al., 2006). The nominal group collaboration mode means that team members independently propose their creative solutions to a specific problem, with team creativity being the sum of all team members' individually proposed solutions (Gallupe et al., 1991). The interactive group collaboration mode means that team members freely interact to jointly explore possible creative solutions to a specific problem (Rietzschel et al., 2006). Existing research indicates that the biggest characteristic of the interactive group collaboration

mode is that only one team member can speak at a time, with other team members in listening mode (Diehl & Stroebe, 1987; Gallupe et al., 1991). This characteristic will further amplify generative AI teammates' constraints on human team members' thinking because when generative AI teammates elaborate their viewpoints, their super-strong data analysis and logical evidence elaboration capabilities will persuade other human team members to believe their viewpoints (Brodbeck et al., 2007), prompting human team members to form consistent cognitions (Zhou, 2021). Conversely, when new product development teams adopt the nominal group collaboration mode, team members will independently propose their creative solutions to a specific problem. At this point, generative AI teammates' hindrance to human team members proposing their unique ideas and their promotion of human members forming consistent cognitions will be significantly weakened.

Based on this, this study proposes that team collaboration mode will moderate the relationship between generative AI teammates and the diversity of human members' idea generation. Compared with the interactive group collaboration mode, the nominal group collaboration mode will weaken the negative effect of generative AI teammates on the diversity of human members' idea generation. The study advances the following hypothesis:

Hypothesis 3: When the team collaboration mode is nominal (vs. interactive), the inhibitory effect of generative AI teammates on the diversity of human members' idea generation will be weakened.

3.2 Study 2: The Enhancing Mechanism and Strengthening Strategies of Generative AI Teammates on Team Idea Convergence

The idea convergence phase is the team idea selection stage where team members, following certain logic or thinking directions, eliminate the false and retain the true to seek optimal solutions to a specific problem. It is the intermediate stage of team new product idea generation (Kaufman & Beghetto, 2009). At this point, the degree of idea selection aggregation, which reflects whether team members are more inclined to learn from and adopt each other's viewpoints, determines team performance. Study 2 intends to deeply explore, from the team affective process perspective, the enhancing effect of generative AI teammates on the degree of human members' idea selection aggregation, reveal the mediating role of team social identification, and examine the strengthening role of team diversity beliefs. The theoretical model of Study 2 is shown in Figure 4 [FIGURE:4].

Existing research indicates that generative AI teammates possess unique social characteristics different from human teammates. Specifically, the content creation capabilities of generative AI agents manifesting as embedded intelligent tools, virtual robots, and physical robots are all supported by generative AI underlying algorithmic models and trained by massive data information sets (Luo

et al., 2023). In other words, generative AI agents' content creation does not have any value judgment or subjective preference (Dennis et al., 2023) and lacks emotional feeling and expression capabilities (Longoni et al., 2019), treating all matters and all people with standardized impartiality. Therefore, compared with human teammates, generative AI teammates will not propose solutions with strong subjective attitudes to a specific problem due to political, cultural, emotional, value-based, or other subjective preferences. Other human team members perceive their viewpoints as more objective (Dennis et al., 2023) and more persuasive (Brodbeck et al., 2007). Meanwhile, other human team members also perceive that generative AI teammates lack goodwill (Dennis et al., 2023) and will not have expectations of social identification and social resource exchange, including emotional exchange, with them (Shu et al., 2024).

Although from the perspective of the relationship between individual human team members and generative AI teammates, compared with human teammates, generative AI teammates will threaten human members' perceived uniqueness due to different social categories (Złotowski et al., 2017), thereby prompting human members to develop aversion toward them (Luo et al., 2023) and increasing social conflict, including emotional conflict, between human team members and generative AI teammates (He et al., 2022). However, from the perspective of relationships among human members after generative AI teammates join the team, when all individual human team members perceive that generative AI teammates' different social categories threaten their uniqueness (Złotowski et al., 2017), the social conflicts, including relationship conflict and emotional conflict, originally caused among them by factors such as gender, politics, culture, social status, and values, will transform into higher-level social category conflicts between humans and machine intelligence agents (Luo et al., 2023). At this point, human team members' perceived social conflicts, including relationship conflict and emotional conflict, caused by factors such as gender, culture, and values, will be weakened (Liu et al., 2022). Moreover, because human team members perceive that generative AI teammates lack goodwill (Dennis et al., 2023) and will not have expectations of social resource exchange with them (Shu et al., 2024), after generative AI teammates join the team, human team members' expectations of social resource exchange, including emotional exchange, and social identification among each other will be enhanced. Additionally, when a human team member disagrees with generative AI teammates, other team members are more likely to understand it as a "misunderstanding" rather than a "conflict" (Dennis et al., 2023), because different values, emotional factors, and political factors are the causes of social conflicts, including emotional conflict (Simons & Peterson, 2000), while generative AI teammates' proposed problem solutions are not affected by subjective preferences such as values, emotional factors, or political factors (Dennis et al., 2023). In other words, compared with human teammates, after generative AI teammates join the team, human team members' perceived social conflicts, including relationship conflict and emotional conflict, will decrease (Dennis et al., 2023). In summary, compared with human teammates, the presence of generative AI teammates will enhance team social

identification among human members.

Existing research indicates that team social identification significantly enhances the degree of human members' idea selection aggregation (Luan & Xie, 2014). The degree of human members' idea selection aggregation reflects whether human team members are more inclined to learn from and adopt each other's viewpoints during idea selection, forming consensus on optimal solutions to a specific problem. Intense team social conflicts, including relationship conflict and emotional conflict, bring negative emotions such as pressure, tension, and anxiety to human team members, causing psychological barriers between them, reducing interdependence, and making them unwilling to learn from and adopt each other's viewpoints (Luan & Xie, 2014), resulting in a low degree of aggregation in the idea convergence phase. Conversely, when human members have high team social identification, their expectations of social resource exchange, including emotional exchange, will be stronger (Luan & Xie, 2014). At this point, human team members are more inclined to learn from and adopt each other's viewpoints during idea selection, quickly forming consensus on optimal solutions to a specific problem.

Based on this, this study proposes that compared with human teammates, generative AI teammates will enhance team social identification, thereby increasing the degree of human members' idea selection aggregation. The study advances the following hypotheses:

Hypothesis 4: Generative AI teammates will enhance the degree of human members' idea selection aggregation.

Hypothesis 5: The effect of generative AI teammates on the degree of human members' idea selection aggregation is mediated by team social identification.

Team diversity belief is an important factor affecting team members' evaluation of and subsequent cooperative behavior toward diverse teammates (generative AI teammates) (Li et al., 2019; van Dick et al., 2008). Diversity belief refers to the extent to which human individuals believe that team diversity will bring value to team performance (Li et al., 2019). Team members with high diversity beliefs consider team diversity valuable, believe it will positively affect team development, and actively participate in team diversity construction, demonstrating corresponding supportive behaviors. Conversely, team members with low diversity beliefs hold negative attitudes toward team diversity, believe it cannot or will even negatively affect team performance, and demonstrate corresponding negative resistant attitudes and behaviors (Li et al., 2019; van Dick et al., 2008). When team diversity belief is high, human team members subjectively hold positive attitudes toward generative AI teammates and are willing to demonstrate supportive behaviors (Li et al., 2019). This belief will further amplify generative AI teammates' enhancing effect on human members' team social identification because when human team members recognize the value of generative AI teammates with different social categories, their aversion toward them will decrease, and their social conflict, including emotional conflict, with

generative AI teammates will also decrease. Conversely, when team diversity belief is low, human team members will negatively resist generative AI teammates, develop stronger aversion toward them, and experience increased social conflict, including emotional conflict, with generative AI teammates, which will significantly weaken generative AI teammates' enhancing effect on human members' team social identification.

Based on this, this study proposes that team diversity belief will moderate the relationship between generative AI teammates and the degree of human members' idea selection aggregation. When team diversity belief is high, the positive effect of generative AI teammates on the degree of human members' idea selection aggregation will be further strengthened. The study advances the following hypothesis:

Hypothesis 6: When team diversity belief is high (vs. low), the enhancing effect of generative AI teammates on the degree of human members' idea selection aggregation will be strengthened.

3.3 Study 3: The Double-Edged Sword Effect and Coping Strategies of Human Members' Creative Interaction in Generative AI Teammate Teams on New Product Idea Performance

Team new product idea generation finally reaches the idea formation phase, where team members reach consensus on an optimal solution after experiencing idea divergence and convergence. Idea generation speed and quality are the ultimate manifestations of team new product idea performance. Building on Studies 1 and 2, Study 3 intends to explore the enhancing effect of human members' creative interaction (idea generation diversity and idea selection aggregation) in generative AI teammate teams on idea generation speed, the diminishing effect on idea generation quality, and their internal mechanisms. The study will also examine the moderating role of generative AI skills training. The theoretical model of Study 3 is shown in Figure 5 [FIGURE:5].

Note: The dashed box contains research ideas from Studies 1 and 2.

In Study 1's research framework, this study proposes that compared with human teammates, generative AI teammates will significantly reduce the diversity of human team members' idea generation. In other words, generative AI teammate teams will have fewer different solutions proposed by human members during the idea divergence phase. Existing research indicates that the fewer different problem solutions shared by team members, the fewer cognitive resources consumed by team members to jointly form optimal solutions, and the smaller the cognitive burden (Brodbeck et al., 2007; Alavi & Westerman, 2023). At this point, human team members can complete the sharing and evaluation of advantages, disadvantages, and executability of the smaller number of problem solutions with less time and effort. Consequently, team idea generation speed

will significantly increase. However, the fewer different problem solutions proposed by team members during the idea divergence phase, the more singular the team's problem-solving perspective, and the lower the possibility of ultimately forming novel, unique, and useful problem solutions (Wang et al., 2021). At this point, the possibility of ultimately generating high-quality new product ideas that are novel, unique, and useful is smaller. Consequently, team idea generation quality will significantly decrease.

In Study 2's research framework, this study proposes that compared with human teammates, generative AI teammates will significantly enhance the degree of human team members' idea selection aggregation. In other words, generative AI teammate teams' human members are more inclined to learn from and adopt each other's viewpoints during idea selection, forming consensus on solutions to a specific problem. Existing research indicates that this tendency to learn from and adopt each other's viewpoints helps reduce conflicts among team members' different viewpoints, prompting team members to continuously deepen solutions to a specific problem, shortening idea selection time and accelerating consensus-reaching processes (Brodbeck et al., 2007). Consequently, team idea generation speed will significantly increase. However, the fewer conflicts among human team members' different viewpoints and the shorter the idea selection time, the less attention and utilization team members give to other members' unique ideas, the greater the possibility of selecting locally optimal solutions during the team idea selection phase, and the greater the possibility of overlooking globally optimal solutions (Brodbeck et al., 2007). Obviously, this means a smaller possibility of ultimately generating high-quality new product ideas that are novel, unique, and useful. Consequently, team idea generation quality will significantly decrease.

Based on this, this study proposes that higher human members' idea generation diversity is more likely to reduce idea generation speed but more likely to enhance idea generation quality; higher human members' idea selection aggregation degree is more likely to enhance idea generation speed but more likely to reduce idea generation quality. Additionally, based on the frameworks of Studies 1 and 2, Study 3 also proposes that compared with human teammates, generative AI teammates will enhance team idea generation speed and reduce team idea generation quality. The study advances the following hypotheses:

Hypothesis 7: Human members' idea generation diversity will (a) reduce idea generation speed; (b) enhance idea generation quality.

Hypothesis 8: Human members' idea selection aggregation degree will (a) enhance idea generation speed; (b) reduce idea generation quality.

Hypothesis 9: Generative AI teammates will enhance team idea generation speed.

Hypothesis 10: Generative AI teammates will reduce team idea generation quality.

To effectively utilize generative AI agents, enterprises have organized employees to receive generative AI skills training. Study 3 will analyze how, under this approach, the double-edged sword effect of generative AI teammates on team new product idea performance and its internal mechanisms change. Specifically, McKinsey survey data[7] shows that nearly 40% of surveyed enterprises, after introducing generative AI agents, have organized more than 20% of employees to receive generative AI skills training. These trainings include generative AI principle training, knowledge training, prompt training, and other content. On one hand, through generative AI skills training, human team members will better understand generative AI teammates' unrestricted information processing and recombination capabilities and their super-strong data analysis and associated information evidence elaboration logic when sharing viewpoints, thereby avoiding limiting their cognition and thinking to specific problem solutions provided by generative AI teammates. Moreover, human team members can propose their unique ideas through continuous effective interaction with generative AI teammates while continuously expanding their information search space, thereby mitigating the diminishing effect of generative AI teammates on team idea generation quality. On the other hand, through generative AI skills training, human team members will also better understand the essence of generative AI teammates' content creation, clarifying that they do not have any value judgment or subjective preference and lack emotional feeling and expression capabilities, thereby not having expectations of social identification and social resource exchange, including emotional exchange, with them. Therefore, when team members disagree with generative AI teammates, other human members will more likely understand it as a "misunderstanding" rather than a "conflict." Human team members' perceived team social conflicts, including relationship conflict and emotional conflict, will be lower, and team social identification, including emotional exchange, will be higher. At this point, the process of team members reaching consensus on optimal solutions to a specific problem will be further accelerated, and the enhancing effect of generative AI teammates on team idea generation speed will be further strengthened.

Based on this, this study proposes that generative AI skills training will moderate the relationships between generative AI teammates and team idea generation speed and quality. Compared with no generative AI skills training, human team members receiving generative AI skills training will strengthen the positive effect of generative AI teammates on team idea generation speed and weaken the negative effect of generative AI teammates on team idea generation quality. The study advances the following hypotheses:

Hypothesis 11: When human team members receive generative AI skills training, the enhancing effect of generative AI teammates on team idea generation speed will be strengthened.

Hypothesis 12: When human team members receive generative AI skills training, the diminishing effect of generative AI teammates on team idea generation quality will be weakened.

4 Theoretical Construction and Innovation

Generative AI agents, with their ability to interact bidirectionally with humans using natural language and their emergent intelligence capabilities to help humans break through cognitive fixedness, are gradually participating in enterprise new product development team interaction and cooperation like human team members, forming a new multi-human-one-AI collaboration scenario. Generative AI teammates have thus become important new members of new product development teams. Different from human team members, generative AI teammates possess unique cognitive characteristics such as content creation logic (Raisch & Fomina, 2024) and social characteristics such as social categories (Złotowski et al., 2017). Their addition changes the original team composition of new product development teams, potentially profoundly affecting team processes of human team member interaction and cooperation and, ultimately, team new product idea generation performance. In response to existing research limitations, this study focuses on exploring the impact of generative AI teammates as new members of new product development teams, revealing from a team process perspective the mechanisms through which generative AI teammates affect human team member interaction and cooperation, and constructing multi-human-one-AI collaboration optimization strategies. The main theoretical contributions and innovations are as follows:

First, regarding research objects, unlike previous studies that mainly focused on all-human new product development teams and examined the effects of team composition characteristics and individual member traits, this study focuses on the role of generative AI teammates as new members of new product development teams. Specifically, existing related research has focused on all-human new product development teams, examining the effects of team composition characteristics and individual member traits, such as the roles of team members' professional fields and cognitive diversity (Criscuolo et al., 2017) and the differential effects of creative members and detail-oriented members (Miron-Spektor et al., 2011). Some studies have begun to examine AI agents' impact, but some treat AI agents as auxiliary tools (Xiao et al., 2018), while others examine AI agents' effects from the individual level (Wu et al., 2023). This study breaks through existing research limitations by focusing on the differential effects of generative AI teammates' cognitive and social characteristics on the three phases of team idea generation—divergence, convergence, and formation. This study proposes that, compared with human teammates, generative AI teammates' super-strong information processing and logical elaboration capabilities (Raisch & Fomina, 2024) will inhibit the diversity of human members' idea generation during the divergence phase; generative AI teammates' social characteristics, such as different social categories (Złotowski et al., 2017), lack of subjective preferences, and lack of goodwill (Dennis et al., 2023), will enhance the aggregation degree of human members' idea selection during the convergence phase; and ultimately enhance team idea generation speed and reduce team idea generation quality during the formation phase.

Second, regarding research content, unlike previous studies that mainly examined the impact of AI agents on individual psychology or behavior from the individual level, this study reveals from the team level the mechanisms through which generative AI teammates affect human team members' interaction and cooperation. AI agents have transformed from simple decision support tools to collaborative partners that can independently participate in team interaction like human members (He et al., 2022), and existing research has called on scholars to jointly investigate the impact of AI agents on human social interaction and cooperation (Xu et al., 2024; Dennis et al., 2023). However, existing related research mainly examines the impact of AI agents on individual psychology or behavior from the individual level, such as helping human individuals overcome rigid thinking (Yi et al., 2023) but also enhancing individuals' identity threat (Złotowski et al., 2017) and job threat perceptions (Wang et al., 2019). This study breaks through existing research limitations by revealing, based on the theoretical logic of team effectiveness models and from a team process perspective, the mechanisms through which generative AI teammates affect human team members' interaction and cooperation in team new product idea generation. This study proposes that the idea divergence phase belongs to the team task process, where generative AI teammates not only prompt the entire team to form consistent cognitions (Zhou, 2021) but also hinder human team members from proposing their unique ideas and intuitions (Brodbeck et al., 2007), thereby intensifying human members' team cognitive fixation and reducing the diversity of human members' idea generation. The idea convergence phase belongs to the team affective process, where because human team members perceive that generative AI teammates do not have any value judgment or subjective preference (Dennis et al., 2023) and lack emotional feeling and expression capabilities (Longoni et al., 2019), their perceived team social identification, including emotional exchange, among each other will be enhanced, thereby increasing the aggregation degree of idea selection among human members.

Third, regarding research perspective, unlike previous studies that focused on one-human-one-AI collaboration strategies, this study constructs multi-human-one-AI collaboration optimization strategies. With breakthrough advances in underlying AI algorithmic models, generative AI agents can independently participate in team interaction and cooperation with multiple human members like human team members, becoming new partners for human teamwork (Xu et al., 2024), forming a new multi-human-one-AI collaboration scenario (Dennis et al., 2023). However, existing human-AI collaboration research focuses on one-human-one-AI collaboration strategies, such as different collaboration modes of AI agent assistance, cooperation, and leadership (Fugener et al., 2022). This study breaks through existing research limitations by constructing multi-human-one-AI collaboration optimization strategies. This study proposes that team collaboration mode will play a moderating role in the divergence phase, where the nominal group collaboration mode can effectively mitigate the inhibitory effect of generative AI teammates on the diversity of human members' idea gen-

eration. Team diversity belief will play a moderating role in the convergence phase, where high team diversity belief can further strengthen the enhancing effect of generative AI teammates on the aggregation degree of human members' idea selection. Generative AI skills training will play a moderating role in the formation phase, where human team members receiving generative AI skills training will further strengthen the enhancing effect of generative AI teammates on team idea generation speed and effectively mitigate the diminishing effect of generative AI teammates on team idea generation quality.

Overall, this study takes the impact of generative AI teammates on team new product idea generation performance from a team perspective as its research object, uses the team effectiveness IPO model as its theoretical logic, focuses on the three phases of "divergence-convergence-formation" in team new product idea generation, and constructs multi-human-one-AI collaboration optimization strategies. This study not only enriches the theoretical connotation of team effectiveness models, reveals from the team level the mechanisms through which generative AI teammates affect human team members' cooperation, and extends human-AI collaboration strategies from one-human-one-AI scenarios to multi-human-one-AI scenarios, but also provides important decision-making references for enterprise new product development teams to effectively utilize generative AI teammates and for the Chinese government to comprehensively implement the "AI+" initiative.

References

Alavi, S., & Westerman, G. (2023). How generative AI changes knowledge work. Retrieved December 30, 2024, from https://www.hbr-caijing.com/#/article/detail?id=480849

Chen, W., Liu, X., & Zhang, X. (2019). Relationship conflict cognitive difference helps team creativity—A moderated mediation model. *Science of Science and Management of S.& T.*, 40(6), 125–139.

Clarke, R., & Chamorro-Premuzic, T. (2023). 5 new skills in the AI era. Retrieved December 30, 2024, from https://www.hbr-caijing.com/#/article/detail?id=480593

He, G., Chen, C., He, Z., Cui, L., Lu, J., Xuan, H., & Lin, L. (2022). Human-AI collaborative decision-making in intelligent organizations: Research exploration based on human-AI internal compatibility. *Advances in Psychological Science*, 30(12), 2619–2627.

Li, N., & Deng, W. (2023). The future of teams: How leaders can move forward hand in hand with AI. *Tsinghua Business Review*, 12(9), 94–99.

Li, Q., Gong, S., & Li, C. (2019). The influence and mechanism of team cultural diversity on team innovation. *Advances in Psychological Science*, 27(9), 1521–1532.

Li, S., Luo, J., & Zhang, Z. (2023). How AI capabilities help enterprises achieve

value co-creation—An exploratory case study based on enterprise-customer interaction. *China Industrial Economics*, 40(5), 174–192.

Liu, S., Cheng, J., & Wang, X. (2022). A study on the double-edged sword effect of shared leadership in virtual teams: From the perspective of adaptive structuration theory. *Advances in Psychological Science*, 30(8), 1770–1784.

Luan, K., & Xie, X. (2014). Research progress and prospects on team identification abroad. *Foreign Economics & Management*, 36(4), 57–64.

Luo, Y., Zhu, G., Qian, W., Wu, Y., Huang, J., & Yang, Z. (2023). Algorithm aversion in the era of artificial intelligence: Research framework and future prospects. *Journal of Management World*, 39(10), 205–233.

Ren, Z., & Liu, R. (2017). Research on enterprise knowledge management platforms under human-computer interaction mode. *Technology and Innovation Management*, 38(5), 526–529.

Shu, L., Wang, K., Wu, Y., & Chen, S. (2024). The multi-stage influence mechanism of AI guidance on consumers' long-term goal pursuit. *Advances in Psychological Science*, 32(3), 451–464.

Wang, C., Zhou, W., & Zhao, S. (2019). Robot scale application and job insecurity—Research based on employee vocational ability regulation. *Economic Management*, 41(4), 111–126.

Wang, N., Chen, X., Sun, B., & Chen, J. (2021). Whose ideas are more valuable—A comparative study of internal and external lead users. *Nankai Business Review*, 24(5), 51–62.

Wu, X., Xiao, J., & Wu, J. (2023). When creativity meets intelligence: A case study of human-AI collaborative product innovation. *Journal of Management World*, 39(5), 112–127.

Xiao, J., Wu, Y., Liu, Y., & Xie, K. (2018). R&D innovation with consumer digital participation—A dual case study from the perspective of enterprise-consumer co-evolution. *Journal of Management World*, 34(8), 154–173.

Xu, W., Gao, Z., & Ge, L. (2024). New paradigm orientations and priorities of human factors science research in the intelligent era. *Acta Psychologica Sinica*, 56(3), 363–382.

Yao, J., Zhang, K., Guo, L., & Feng, X. (2024). How does artificial intelligence enhance enterprise production efficiency?—From the perspective of labor skill structure adjustment. *Journal of Management World*, 40(2), 101–116.

Yi, P., Finkenstadt, V., Folk, M., & Venkataswamy, R. (2023). AI "generates" your unique creativity. Retrieved December 30, 2024, from https://www.hbr-caijing.com/#/article/detail?id=480672

Zhou, X. (2021). *The generation and application of collective wisdom in cooperative innovation*. Beijing: People's Publishing House.

Brodbeck, F. C., Kerschreiter, R., Mojzisch, A., & Schulz-Hardt, S. (2007). Group decision making under conditions of distributed knowledge: The information asymmetries model. *Academy of Management Review*, 32(2), 459–479.

Criscuolo, P., Dahlander, L., Grohsjean, T., & Salter, A. (2017). Evaluating novelty: The role of panels in the selection of R&D projects. *Academy of Management Journal*, 60(2), 433–460.

Dennis, A. R., Lakhiwal, A., & Sachdeva, A. (2023). AI Agents as team members: Effects on satisfaction, conflict, trustworthiness, and willingness to work with. *Journal of Management Information Systems*, 40(2), 307–337.

Diehl, M., & Stroebe, W. (1987). Productivity loss in brainstorming groups: Toward the solution of a riddle. *Journal of Personality and Social Psychology*, 53(3), 497–509.

Duan, Y., Edwards, J. S., & Dwivedi, Y. K. (2019). Artificial intelligence for decision making in the era of Big Data—Evolution, challenges and research agenda. *International Journal of Information Management*, 48(October), 63–71.

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koohang, A., Raghavan, V., Ahuja, M., & Wright, R. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71(4), Article 102642. https://doi.org/10.1016/j.ijinfomgt.2023.102642

Eling, K., Langerak, F., & Griffin, A. (2015). The performance effects of combining rationality and intuition in making early new product idea evaluation decisions. *Creativity and Innovation Management*, 24(3), 464–477.

Fugener, A., Grahl, J., Gupta, A., & Ketter, W. (2022). Cognitive challenges in human-artificial intelligence collaboration: Investigating the path toward productive delegation. *Information System Research*, 33(2), 705–724.

Gallupe, B. R., Bastianutti, M. L., & Cooper, H. W. (1991). Unblocking brainstorms. *Journal of Applied Psychology*, 76(1), 137–142.

Harreis, H., Koullias, T., Roberts, R., & Te, K. (2023). Generative AI: Unlocking the future of fashion. Retrieved January 19, 2025, from https://www.mckinsey.com/industries/retail/our-insights/generative-ai-unlocking-the-future-of-fashion#/

Hentout, A., Aouache, M., Maoudj, A., & Akli, I. (2019). Human–robot interaction in industrial collaborative robotics: A literature review of the decade 2008–2017. *Advanced Robotics*, 33(15–16), 764–799.

Hutson, M. (2023). AI and the creative process: Part three. Retrieved January 19, 2025, from https://daily.jstor.org/ai-and-the-creative-process-part-three/

Kaufman, J. C., & Beghetto, R. A. (2009). Beyond big and little: The four C model of creativity. *Review of General Psychology*, 13(1), 1–12.

Kihlstrom, J. (1987). The cognitive unconscious. *Science*, 237(4821), 1445–1452.

Klotz, A. C., Hmieleski, K. M., Bradley, B. H., & Busenitz, L. W. (2014). New venture teams: A review of the literature and roadmap for future research. *Journal of Management*, 40(1), 226–255.

Kushwaha, A. K., & Kar, A. K. (2021). MarkBot—A language model-driven chatbot for interactive marketing in post-modern world. *Information Systems Frontiers*, 26(3), 857–874.

Longoni, C., Bonezzi, A., & Morewedge, C. K. (2019). Resistance to medical artificial intelligence. *Journal of Consumer Research*, 46(4), 629–650.

Mahzoon, H., Ogawa, K., Yoshikawa, Y., Tanaka, M., Ogawa, K., Miyazaki, R., … Ishiguro, H. (2019). Effect of self-representation of interaction history by the robot on perceptions of mind and positive relationship: A case study on a home-use robot. *Advanced Robotics*, 33(21), 1112–1128.

Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of Management*, 34(3), 410–476.

Metcalf, L., Askay, D. A., & Rosenberg, L. B. (2019). Keeping humans in the loop: Pooling knowledge through artificial swarm intelligence to improve business decision making. *California Management Review*, 61(4), 5–26.

Miron-Spektor, E., Erez, M., & Naveh, E. (2011). The effect of conformist and attentive-to-detail members on team innovation: Reconciling the innovation paradox. *Academy of Management Journal*, 54(4), 740–760.

Nataraj, P. (2022). 6-Month review: GitHub copilot elicits mixed reactions from developers. Retrieved January 19, 2025, from https://analyticsindiamag.com/global-tech/6-month-review-github-copilot-elicits-mixed-reactions-from-developers/

Noy, S., & Zhang, W. (2023). Experimental evidence on the productivity effects of generative artificial intelligence. *Science*, 381(6654), 187–192.

Qin, X., Chen, C., Yam, K. C., Cao, L. M., Li, W. L., Guan, J., Zhao, P. C., Dong, X. W., & Lin, Y. Q. (2022). Adults still can't resist: A social robot can induce normative conformity. *Computers in Human Behavior*, 127(2), Article 107041. https://doi.org/10.1016/j.chb.2021.107041

Raisch, S., & Fomina, K. (2024). Combining human and artificial intelligence: Hybrid problem-solving in organizations. *Academy of Management Review*, in press. https://doi.org/10.5465/amr.2021.0421

Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation-augmentation paradox. *Academy of Management Review*, 46(1),

192–210.

Rietzschel, F. E., Nijstad, A. B., & Stroebe, W. (2006). Productivity is not enough: A comparison of interactive and nominal brainstorming groups on idea generation and selection. *Journal of Experimental Social Psychology*, 42(2), 244–251.

Shrestha, Y. R., Ben-Menahem, S. M., & Von-Krogh, G. (2019). Organizational decision-making structures in the age of artificial intelligence. *California Management Review*, 61(4), 66–83.

Simons, T., & Peterson, R. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85(1), 102–111.

van Dick, R., van Knippenberg, D., Hägele, S., Guillaume, Y. R. F., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs. *Human Relations*, 61(10), 1463–1492.

Złotowski, J., Yogeeswaran, K., & Bartneck, C. (2017). Can we control it? Autonomous robots threaten human identity, uniqueness, safety, and resources. *International Journal of Human-Computer Studies*, 100(4), 48–54.