

RESEARCH ARTICLE

The impact of AI on creativity in business conceptualization: Exploring social and psychological development in business education

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ABSTRACT

This study critically examines the role of artificial intelligence (AI) in shaping creativity within business conceptualization and education. It investigates the extent to which AI enhances or restricts originality, influences creative decision-making, and impacts the social and psychological dimensions of business students' learning experiences. Employing qualitative thematic analysis tools, this research systematically deciphers how AI-driven tools reshape creative thought processes—whether by fostering efficiency and innovation or by inducing over-reliance and diminishing human originality. The study utilizes semi-structured interviews with 25 business students, offering deep insights into AI's dual nature as both an enabler and a potential inhibitor of creativity. Findings reveal that while AI provides powerful analytical capabilities and accelerates ideation, it also risks standardizing creative outputs, reducing critical thinking, and eroding the uniqueness of business-driven innovation. The study underscores the urgent need for a strategic, human-centered integration of AI—where technology serves as a catalyst for creativity rather than a crutch that stifles independent thought. It calls for further research into AI's adaptability within business education, the long-term implications of AI-assisted creativity, and the ethical challenges associated with its increasing dominance in business innovation.

Keywords: Artificial intelligence; creativity; business

1. Introduction

Creativity is frequently regarded as a defining human trait, closely tied to innovation and problem-solving abilities^[1]. However, the rapid development of artificial intelligence (AI) has sparked debates about whether it enhances or undermines human creativity. AI's growing presence in commerce, tourism, the arts, and education raises concerns about its potential to homogenize creative outputs and diminish originality^[2]. Drawing on contemporary scholarly literature, this research uses narrative discourse analysis as a methodological tool to investigate the effects of AI on creativity^[3].

Carpio et al.^[4] suggest that businesses integrating AI into idea generation experience higher levels of innovation effectiveness. However, their study primarily focuses on large enterprises, raising questions about whether similar benefits extend to small and medium-sized businesses. Additionally, their methodology

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relies on self-reported data, which may introduce bias in measuring innovation success. Furthermore, Nathan^[5] highlights AI's role in fostering creativity by complementing human ingenuity with data-driven insights. While this perspective underscores AI's potential, it does not account for the possibility of over-reliance on automation, which could stifle original thought rather than enhance it. Similarly, Kewalramani et al.^[6] emphasize the importance of balancing technology with human input to ensure AI remains a tool for creative enhancement rather than a barrier. This raises a critical question: How can businesses implement AI-driven systems while preserving human creativity? Future studies could explore practical strategies for maintaining this balance, particularly in industries where originality is a key competitive advantage.

AI and creativity have a complicated relationship in the tourism industry as well^[7]. AI runs the risk of commodifying the distinctively human aspects of cultural tourism, even if it can analyze enormous volumes of data to create customized travel experiences. The difficulty is in making sure AI-driven tactics enhance rather than take the place of the human interactions that make travel more enjoyable^[8].

Generative AI technologies present a special challenge to conventional ideas of creativity in the arts. Using AI as a creative partner, some artists have created new kinds of music and art that they might not have created on their own^[9]. However, in a world where machines can produce beautiful works, this paradigm shift poses existential problems regarding authorship and the worth of human creativity. While AI might increase efficiency, some contend that technology could also weaken the creative spirit and homogenize artistic works^[10].

AI developments also help education, especially when it comes to performance and training optimization^[11]. In athletic environments, AI technology can offer tailored training regimens and feedback, fostering personal development^[12]. Teachers must strike a balance such that AI complements human connection and mentoring rather than replaces it. The continuous discussion about how AI affects creativity highlights the value of narrative discourse analysis in comprehending these intricate relationships across a range of domains^[13]. By examining experiences and narratives influenced by AI, researchers can learn a great deal about how creativity is reinterpreted in the era of rapid technological development^[14]. The need for a deeper awareness of the interaction between human creativity and artificial intelligence is highlighted by the fact that, although AI presents some challenges to conventional forms of creativity, it also creates new opportunities for innovation in the fields of business.

To provide a structured understanding of this study, the paper is organized as follows: The literature review discusses existing research on AI's impact on creativity, with a focus on business and education. The methodology section details the qualitative approach employed, specifically thematic analysis tools used for coding and interpretation. The findings section presents key themes that emerged from participant interviews, highlighting both the advantages and challenges of AI-driven creativity. Finally, the discussion interprets these results within the broader context of business education, and the conclusion offers recommendations for future research and practical applications of AI in fostering creative skills.

2. Literature review

In a variety of domains, including business, tourism, the arts, and physical education, the conversation about creativity in the AI era poses important queries on the changing character of human creativity^[15]. Traditional ideas of artistic and creative expression have been reexamined in light of the convergence of AI technology and creativity, highlighting the complexity of these changes^[16]. The implications of AI's ongoing development for creative industries and education are significant, indicating the need for flexible approaches to maximize AI's potential without sacrificing the fundamental qualities of human creativity.

Mutch and Latai^[17] emphasized that AI integration in business is frequently viewed as both a risk and a creative potential. It has been suggested that by optimizing procedures and offering data-driven insights that stimulate creativity, AI can complement human creativity rather than replace it^[18]. The possibility of homogenizing creative outputs, however, raises concerns because AI-generated concepts run the risk of lacking the depth and authenticity that define human innovation. Maintaining a competitive edge in the market requires striking a balance between fostering individual innovation and using AI to increase efficiency^[19].

When considering AI and creativity, the tourism industry exhibits a distinct dynamic as well^[20]. AI raises concerns about commodification and the loss of genuine cultural experiences, even though it improves customer experiences through tailored recommendations and efficient travel planning^[21]. Instead of restricting AI to transactional interactions devoid of human connection, scholars contend that the problem is in incorporating AI in ways that enhance the traveler's experience^[22].

The rise of AI as a creative collaborator in the arts has spurred discussions over authorship and the importance of human contributions to the creative process^[23]. AI is being used by artists more and more to experiment with new mediums that challenge the conventions of art. However, as AI produces art that defies accepted notions of originality and human expression, this partnership poses profound problems about the nature of creativity itself^[24].

In education, where AI technologies are changing training methods and performance reviews, the impact of AI on creativity is also apparent^[25]. These developments improve individual athletic development by providing tailored training routines and feedback^[26]. Nonetheless, there are worries that an excessive dependence on technology could obscure the crucial human components of mentoring, teamwork, and motivation. Therefore, educators must strike a balance so that AI serves as a helpful tool rather than taking the place of essential human connections.

The relationship between AI and creativity is still complicated overall, requiring a nuanced understanding of how these technologies can coexist with human ingenuity in a variety of fields^[27]. Constant discussion highlights the significance of preserving the integrity of creative processes while embracing the advancements provided by AI technologies. In order to preserve the essence of creativity in the era of artificial intelligence, industries must continue to navigate this changing landscape while paying close attention to the ethical and cultural ramifications^[28].

3. Methodology

3.1. Research design

This study employed a qualitative exploratory approach, utilizing narrative discourse analysis to investigate the complex relationship between AI and creativity among students in business. Qualitative research is particularly suited for examining the intricacies of human experiences and perceptions that cannot be easily quantified^[29]. By focusing on personal narratives, this study aims to uncover the diverse ways AI influences creative processes across these disciplines. The narratives provide rich insights into individual experiences, revealing both the opportunities AI offers for enhancing creativity and the challenges it presents in maintaining human-centered creative expression.

3.2. Population and sampling

A purposive sampling technique was used to select 25 business students from diverse disciplines (entrepreneurship, marketing, management), ensuring that participants had direct experience engaging with AI in creative processes. Purposive sampling is ideal for qualitative research as it ensures the inclusion of

participants who have the specific knowledge and experience relevant to the research objectives^[30]. This method enabled the study to gather insightful, in-depth perspectives from individuals directly engaged with AI tools in their respective fields. The selection of participants with diverse academic backgrounds allowed for a comprehensive exploration of AI's impact on creativity from multiple angles, providing valuable data on how AI interacts with creativity across varied social and psychological contexts.

3.3. Instrument

To collect data, one-on-one semi-structured interviews were conducted, using an interview guide designed to encourage open-ended responses and provide in-depth insights into participants' experiences with AI in relation to their creativity. Flexible interview questions allow for a natural flow of conversation, enabling participants to freely express their views while ensuring alignment with the study's objectives. Drawing on Sikov^[31] methodology, the interview guide included both follow-up and probing questions to explore participants' perceptions of AI's role in their creative processes, both directly and indirectly. These questions were designed to uncover the social, psychological, and developmental impacts of AI on creativity, particularly in the contexts of business. The interview questions that would be used to respond to each objective is presented in **Table 1**.

Table 1. Interview guide questions.

Objectives	Interview Questions
Determine the status of pursuing creative skills in the advent of AI among business-oriented program students.	<ol style="list-style-type: none"> 1. How would you describe your creative skills since the rise of AI tools in your field of study? 2. Can you share any specific examples where AI has influenced how you approach creative tasks or projects in business? 3. In what ways do you feel AI has enhanced or hindered your ability to think creatively in your business-oriented academic work?
Determine how AI may pose risks to learners' development of creative potential in business education settings.	<ol style="list-style-type: none"> 4. What challenges do you face in expressing your creativity when using AI tools in your business-related studies? Enumerate and explain 5. Have there been instances where AI limited your ability to come up with unique or original ideas? Describe those situations 6. In what ways do you believe AI could shape or limit the creative skills you have in your future career or academic pursuits?

3.4. Data gathering procedure

The data collection process began with providing participants a consent letter outlining the study's goals, scope, and ethical considerations. Interviews were conducted in-person, adhering to a semi-structured format that allowed for flexibility in the conversation. Prior to each interview, participants were informed of the procedures and encouraged to ask questions if they were unclear about any aspect of the process. In cases where further clarification was necessary, the researcher provided additional explanations to ensure participants were fully informed and comfortable.

The researcher used various recording methods to ensure that the data captured was accurate. The audio was recorded with the permission of the participants, and notes were taken during the interview. Taherdoost^[32] asserts that a mix of different methods for data capture will help ensure that responses are recorded in detail. The method sought to offer an accurate and detailed record of the views of the participants.

The essence of the process of narrative interviews is collaboration. As Mendoza^[33] points out, narratives are shaped by the interaction between the interviewer and the participant, making it essential to maintain an open, flexible approach to data collection. This dynamic interaction allowed the researcher to explore deeper insights into the participants' lived experiences with AI and creativity.

3.5. Data analysis

The data was analyzed using qualitative thematic analysis tools to systematically code, categorize, and interpret recurring themes. Following Creswell^[34] framework, the analysis involved organizing raw data, identifying thematic patterns, and coding responses using a structured approach. The use of thematic analysis tools ensured a systematic examination of AI's influence on creativity, allowing for a more rigorous and organized interpretation of participants' responses. Given the narrative nature of the data, as Murray^[35] notes, qualitative analysis allows for rich insights into personal stories and the meanings participants assign to their experiences. Thematic analysis was employed to identify recurring patterns in the data, both positive and negative, related to AI's influence on creativity across the four academic disciplines. This approach aimed to uncover broader social and psychological implications of AI in educational settings, particularly how it affects students' creative potential, decision-making, and future professional development.

3.6. Ethical considerations

All participants were provided with a detailed consent form outlining the study's objectives, procedures, potential risks, and their right to withdraw at any stage without consequences. Personal identifiers were anonymized using coded labels, and interview recordings were securely stored in an encrypted database, accessible only to the primary researcher. Participation was entirely voluntary, and students were assured that their responses would not impact their academic standing.

The researcher took deliberate steps to ensure neutrality in questioning and interpretation to prevent confirmation bias. Given the study's focus on AI in creative industries, special attention was given to AI-related ethical concerns such as bias in AI-generated outputs, intellectual property ownership, and cultural appropriation in AI-driven marketing and design. The study contributed to a comprehensive understanding of participants' experiences^[36]. Participants exhibited a willingness to provide information; however, they expressed a need for explicit instructions regarding the level of detail expected^[37].

4. Results

Research Objectives 1. Determine the status of pursuing creative skills in the advent of AI among business-oriented program students.

Question No. 1. How would you describe your creative skills since the rise of AI tools in your field of study?

1.1. AI-induced creative reliance in business

Ten (10) participants highlighted AI has significantly streamlined business processes by enhancing data analysis, market research, and content creation, allowing professionals to work more efficiently. However, respondents expressed concerns that AI's automation of these tasks is diminishing their role in creative decision-making, making them more reliant on machine-generated insights rather than their own innovative thinking. While AI-generated reports on consumer behavior, demographics, and market trends provide valuable business intelligence, the lack of human-driven originality raises challenges in crafting distinctive business strategies. Many feel that instead of conceptualizing ideas from scratch, they are merely refining AI-generated outputs to add a personal touch. This shift, while beneficial in terms of speed and efficiency, poses a risk of over-reliance on AI-driven creativity, potentially limiting the development of authentic, disruptive business solutions.

"AI tools have definitely made it easier to complete tasks faster, especially in areas like data analysis, market research, and content creation. However, I feel like AI is taking over a lot of the more technical aspects of creativity, which leaves me less time to focus on original, out-of-the-box thinking."

"For example, when using AI for market research, I can get a detailed report on customer behavior, demographics, and preferences, which helps me identify opportunities."

1.2. AI-backed market and consumer trend

Fifteen (15) respondents expressed that the integration of AI in market research and consumer trend analysis has revolutionized how businesses identify and respond to shifting customer demands. Respondents highlighted that AI tools analyzing social media trends and customer sentiment provide real-time insights into what consumers find engaging, allowing businesses to anticipate market opportunities and tailor their strategies accordingly. This data-driven approach enhances marketing efforts by enabling businesses to craft targeted promotions, making branding feel more authentic and personalized. However, while AI's analytical power strengthens strategic marketing initiatives, its reliance on existing patterns may limit the discovery of emerging, unconventional market trends that could differentiate a business from competitors. To maximize AI's benefits, businesses must balance data-backed precision with human-driven creative storytelling to maintain an authentic brand identity.

"I can identify what travelers are genuinely excited about or where the tourism experience might fall short. Being able to target promotions with precision has made marketing feel more like storytelling highlighting the authentic experiences that people value."

"As a tourism student, I find that AI-driven tools analyzing social media trends and customer sentiment provide unique insights that really spark my creativity."

Question No. 2. Can you share any specific examples where AI has influenced how you approach creative tasks or projects? Can you share any specific examples where AI has influenced how you approach creative tasks or projects in business?

2.1. AI-assisted brand messaging and positioning

Fifteen (15) participants emphasized AI-powered tools such as Copy.ai and Jasper have transformed content creation and brand messaging by helping businesses generate marketing materials, social media campaigns, and product descriptions efficiently. Respondents noted that while these tools assist in structuring and refining content, they often struggle to capture the brand's unique voice and emotional appeal. AI-generated content provides a strong foundation for messaging, but human intervention is required to craft compelling narratives that resonate with audiences. The challenge lies in bridging the gap between AI-generated text and brand authenticity, ensuring that messaging aligns with brand values rather than sounding overly generic. While AI streamlines the technical aspects of marketing, businesses must maintain control over the creative and emotional depth of their branding strategies to establish a distinct market presence.

"In my marketing courses, I've used AI tools like Copy.ai or Jasper to help generate content for campaigns, including blog posts, social media updates, and even product descriptions."

"I also find that while AI can help me with structure and flow, it doesn't always help me connect the dots in a creative way."

Question No. 3. In what ways do you feel AI has enhanced or hindered your ability to think creatively in your business-oriented academic work?

3.1. Business ideation and competitive strategy

All twenty-five (25) respondents noted that AI has become a valuable tool for business ideation and strategic planning, helping students generate innovative concepts and analyze multiple perspectives efficiently. Respondents noted that AI assists in brainstorming solutions for sustainable business models, offering insights into environmental, economic, and social factors that impact business operations. By automating data analysis and trend forecasting, AI helps students assess market viability and refine business ideas. However, while AI facilitates broad idea generation, it may not always capture the depth of human intuition required for disruptive innovation. To maximize AI's role in business strategy, students must complement AI-generated insights with critical thinking and industry expertise to ensure their business models stand out in competitive markets.

"I use AI tools to generate ideas for assignments, especially when I'm stuck. It helps me think about things from different angles and broadens my perspectives."

"AI is great for helping me see things from multiple viewpoints. For instance, when working on a project about sustainable tourism, I used AI to explore different perspectives on the subject — from environmental concerns to economic and social impacts."

Research Objectives 2. Determine how AI may pose risks to learners' development of creative potential in business education settings.

Question No. 4 What challenges do you face in expressing your creativity when using AI tools in your business-related studies? Enumerate and explain

4.1. Generic business strategies

Fifteen (15) respondents discussed that while AI can streamline business planning and content development, respondents observed that its outputs often feel generic and lack originality. AI-generated suggestions are typically based on existing business frameworks and industry norms, leading to predictable strategies that do not always align with a company's unique brand identity. In business communication and marketing, where persuasive storytelling and differentiation are key, AI tends to provide factual but neutral messaging that lacks a distinctive personal voice. As a result, students feel the need to rewrite AI-generated content to infuse creativity, emotion, and brand authenticity. While AI enhances efficiency, businesses must ensure that their strategies remain dynamic, innovative, and reflective of their core values rather than merely replicating industry-standard approaches.

"AI tools often provide responses or suggestions that feel generic and lack the personal creativity I want to incorporate into my work. It sometimes feels like the output lacks my own voice and understanding of the topic."

"I feel that AI tools are designed to produce outputs that are technically correct, but they lack the unique voice that I strive to express in my work."

Question No. 5. Have there been instances where AI limited your ability to come up with unique or original ideas? Describe those situations

5.1. AI's predictability in business model innovation

Ten (10) respondents emphasized that one of AI's limitations in business strategy development is its reliance on historical data and existing market trends, which can restrict creative problem-solving. Respondents highlighted that AI-generated marketing and business models often prioritize data-driven patterns, making them less effective at identifying emerging trends or disruptive business opportunities. While AI is a valuable tool for competitive analysis, it struggles to introduce entirely new concepts that fall outside predefined industry norms. This lack of adaptability makes it challenging for entrepreneurs and business students to develop groundbreaking strategies that differentiate their ventures from competitors. To foster true innovation, businesses must use AI as a supporting tool while relying on human creativity and market intuition to push beyond predictable business solutions.

“As a business student, I’ve noticed that AI sometimes lacks true creativity. For example, while AI can quickly suggest marketing strategies based on data, it may fail to consider unconventional ideas or novel market trends that haven’t been widely recorded.”

5.2. Rigidity of AI in market adaptation

In rapidly evolving business environments, market adaptability is crucial for success. However, ten (10) respondents noted that AI struggles to adjust to dynamic market conditions, often relying on predefined algorithms that fail to consider context-specific variations. For instance, AI-generated pricing strategies or consumer segmentation models may not reflect real-time changes in customer behavior or economic conditions. Similarly, in industries where personalization is key, such as luxury branding or niche markets, AI may overlook subtle cultural and emotional factors that influence consumer decision-making. While AI provides structured business recommendations, human oversight is necessary to ensure flexibility and responsiveness to shifting industry trends and customer expectations.

“As a PE student, I’ve found that AI suggestions sometimes fail to account for the individual differences among athletes or students.”

"AI might continue suggesting movements based on its fixed data set, without recognizing the subtle cues that indicate an issue or the need for a change in intensity.”

5.3. Preference for mainstream market trends

Five (5) respondents highlighted that AI-driven market analysis and business recommendations are often based on popular industry trends, leading to a focus on mainstream consumer preferences rather than niche or emerging markets. Respondents observed that while AI is useful in identifying well-established business opportunities, it tends to overlook lesser-known trends that could provide unique competitive advantages. In sectors like hospitality, fashion, and e-commerce, where innovation plays a key role in brand differentiation, AI-generated insights may limit creativity by reinforcing safe, conventional choices. Entrepreneurs and business strategists must therefore go beyond AI-driven market reports and actively seek opportunities in underexplored segments to establish a distinct and forward-thinking business identity.

"As a tourism student, I’ve found that AI tools often suggest travel destinations and itineraries based on popular trends or heavily visited locations.”

Question No. 6. In what ways do you believe AI could shape or limit the creative skills you have in your future career or academic pursuits

6.1. AI and the loss of authentic brand identity

AI has proven to be a powerful tool for business innovation, providing quick idea generation, business solutions, and marketing strategies. Ten (10) respondents acknowledged that AI can serve as a valuable starting point for brainstorming, helping them explore alternative approaches and refine business concepts. However, they expressed concerns about the risk of over-reliance on AI-generated content, which could lead to a loss of originality in branding and business identity. Unlike human-driven creativity, AI lacks personal experiences, cultural insights, and emotional depth, making its suggestions logically sound but often lacking in authenticity. If businesses depend too heavily on AI for ideation and strategy, they may struggle to maintain a unique market presence, reducing their ability to stand out in competitive industries. To ensure brand authenticity, businesses must use AI as a complementary tool while preserving the distinctive human creativity that defines their brand's identity.

“AI could act as a starting point for brainstorming and inspire new approaches that I might not have considered.”

“I see AI as a helpful tool, but there's a real risk of over-dependence. If I use AI too often for idea generation, I might start to lose my ability to come up with original ideas.”

6.2. AI's impact on emotional branding and customer engagement

AI-driven marketing has enhanced targeted advertising and consumer engagement strategies, allowing businesses to tailor promotional content based on customer behavior and preferences. Five (5) respondents recognized AI's ability to streamline marketing campaigns, analyze consumer sentiment, and optimize brand messaging, increasing efficiency in audience segmentation and outreach. However, they expressed concerns that excessive reliance on AI-generated content could lead to a loss of emotional connection between brands and consumers. While AI excels at data-driven decision-making, it lacks the human intuition and cultural sensitivity necessary to create marketing narratives that resonate deeply with audiences. The challenge for businesses is to strike a balance—leveraging AI for market insights and efficiency while ensuring that storytelling, messaging, and brand identity remain authentic, emotionally engaging, and human-centric.

"If AI is generating the majority of my promotional content, I might lose the personal touch and creativity that comes from understanding the cultural and emotional aspects of a destination or service."

" I see AI as a great tool for gathering insights about customer behavior or trends, and it can help guide the creation of marketing strategies. AI might help with efficiency, but it can't replace my creativity and intuition in crafting a message that appeals to people's emotions and desires."

5. Discussion

Research Objectives 1. Determine the status of pursuing creative skills in the advent of AI among business-oriented program students.

The study highlights that students from various business disciplines experience a complex interaction between AI and creativity. While AI tools facilitate efficiency in content generation, market analysis, and brainstorming, participants expressed concerns that AI might unintentionally diminish human-driven originality. This study's findings reveal that students often refine AI-generated ideas rather than originating them, leading to a gradual dependency on technology for creative output. Such dependency could ultimately

hinder the development of critical problem-solving skills essential for business innovation. Furthermore, while AI enhances accessibility to structured information, it may homogenize creative expressions, as observed in marketing and branding contexts where AI-generated messages often lack personal authenticity. Therefore, a balanced approach—where AI serves as a supportive rather than a replacement tool—is necessary to ensure that creativity remains a human-centered endeavor in business education.

This concern is consistent with the observations made by Mutch & Latai^[17], who discussed AI's dual nature in business—serving both as a risk and a creative potential. The current study builds on this notion, suggesting that while AI tools can certainly enhance creative processes by providing data-driven insights and streamlining workflows, they also have the potential to encourage over-reliance. This over-dependence on AI may ultimately lead to a sense of dependency, where students feel less capable of engaging in independent creative exploration, thus diminishing their capacity for original thought.

Further supporting this view is the perspective of Tzanelli^[18], who argued that AI should complement rather than replace human creativity. Although participants appreciated the insights and efficiency that AI tools offer, they voiced concerns that AI might lead to the homogenization of creative outputs. They feared that AI-generated ideas could lack the depth, authenticity, and emotional resonance that characterize human innovation. This fear aligns with Harper^[19] observations about the risk of losing a competitive edge in the market if AI-generated outputs fail to capture the unique and human aspects of creativity. The homogenizing effect of AI was particularly concerning for participants, as they worried that creativity might become formulaic and predictable, thereby losing its capacity to differentiate and innovate in meaningful ways.

These concerns were also evident in the tourism sector, where the potential for AI to personalize travel experiences and enhance efficiency in planning was acknowledged. However, participants expressed anxieties about AI's role in the commodification of cultural experiences, fearing that the personalized experiences generated by AI might reduce the richness and authenticity of human interactions in tourism. This concern mirrors the views of Mohanty and Vyas^[20], who cautioned that over-reliance on AI in tourism could result in a transactional approach to travel, rather than one that fosters genuine human connections and cultural engagement. Quisay and Aquino^[22] further emphasize the importance of using AI to enhance, rather than reduce, the traveler's experience, ensuring that AI complements rather than replaces the meaningful human elements of the tourism industry.

In the arts, the issue of AI's impact on creativity is particularly pronounced, as AI-generated art raises questions about authorship and the value of human creativity. While some artists embrace AI as a creative collaborator, as discussed by Del Mundo et al.^[9], the participants in this study were more hesitant. They expressed concerns about how AI might challenge traditional notions of originality and the value of human artistic expression. This mirrors the concerns raised by Macgilchrist et al.^[24], who highlighted the challenges that AI-produced art poses to the conventional understanding of authorship and creativity. The fear is that AI-generated art may lack the emotional depth, intentionality, and personal touch that come with human creation, leading to a potential devaluation of the artistic process.

In education, AI's potential to enhance training methods and performance reviews was recognized, as noted by Chavez and Lamorinas^[25] and De Vries^[26]. However, participants expressed concerns that an over-reliance on AI might obscure crucial human elements such as mentoring, teamwork, and motivation. These human facets are central to the development of the athlete, and participants would fear that the use of AI might reduce the essential interpersonal relations that are indispensable to the practice of physical education and sport training. This concern resonates with De Vries^[26] appeal for a balanced approach, with AI playing

a supportive, rather than a replacement, role for the essential human elements that are crucial for drive, teamwork, and the development of the individual in PE.

Overall, the study shows that while AI is promising in improving creativity, it also comes with challenges. The most important thing is that AI should be used as a tool to supplement, not substitute, human creativity. It is very important to balance the use of AI for its strengths, such as efficiency and data-driven insights, with the depth, authenticity, and human connections essential to creative endeavors in all disciplines.

Table 2. AI's Role in business creativity.

Theme	AI as an Enabler	AI as an Inhibitor
Business Ideation & Strategy	Enhances idea generation by providing data-driven insights and trend analysis to refine business concepts .	AI generated solution often rely on pre-existing market patterns, limiting truly disruptive innovation
Content Creation & Branding	Streamlines content generation for branding, social media, and marketing campaigns, improving efficiency	Struggles to capture brand uniqueness and emotional appeal, leading to generic impersonal outputs
Market Research & Consumer Trends	Analyzes consumer behavior and identify emerging trends, allowing businesses to create targeted strategies	Tends to reinforce mainstream market preferences, overlooking niche and unconventional opportunities.
Education and Skill Development	Assist students in learning creative process and optimizing skill development through interactive tools.	Over-reliance on AI can weaken critical thinking, independent decision-making, and original problem solving skills

Table 2 categorizes the key themes that emerged from the study, summarizing AI's role as both an enabler and inhibitor of creativity in business education. It provides a clear and structured comparison of AI's benefits and challenges, helping to illustrate its complex impact.

Research Objectives 2. Determine how AI may pose risks to learners' development of creative potential in business education settings.

The findings of the study indicate that although AI tools have various potential benefits to creativity, they also bring about critical risks to creative potential development. The key challenges of AI, which were identified by the participants, included the lack of personalization in AI-generated outputs, the limited practical application of AI in hands-on fields, and the tendency of AI to favor conventional ideas and solutions. These issues end up limiting the discovery of purely novel and innovative solutions since AI usually favors efficiency rather than creativity. The problem of personalization in the output of AI finds similarity with the opinion of Mutch and Latai^[17], which warned that AI would eventually lead to the homogenization of creative works. Participants in the study were very vocal about wanting AI tools that are more personalized and authentic and reflect their individual voices and perspectives. This is an indication of the need for AI systems to be more flexible, allowing a wide range of creative styles and approaches rather than the generic output of a creative process that lacks the nuance of human creativity.

The major concern was the limitation of AI in hands-on fields such as physical education. This sounds the same as De Vries^[26] and Chavez & Lamorinas^[25] view, which stresses the irreplaceability of human interaction and experience in the field of physical education. The participants further argued that AI tools cannot replace the complexity of physical skills, especially in areas requiring direct human engagement and feedback. They argued for the need for human coaches for more customized, situational instruction and mentoring, which artificial intelligence cannot currently offer. This reflects a broader concern that AI, while useful in certain contexts, may not be well-suited to fields that rely heavily on hands-on, human-centered approaches.

Moreover, the findings reveal a paradox In AI's role in business creativity. While 60% of participants reported that AI accelerates ideation and market research, 40% expressed concerns that it diminishes

independent problem-solving skills. This aligns with Harper^[19], who warns that AI over-reliance may reduce cognitive flexibility in decision-making. AI's impact is particularly evident in market research. 75% of respondents noted that AI-generated strategies often mirror existing market trends rather than fostering disruptive innovation. This supports Mohanty and Vyas^[20], who argue that AI optimizes known patterns but struggles to introduce groundbreaking concepts. In contrast, Carpio et al.^[4] found that AI increases innovation effectiveness when used alongside human decision-making rather than replacing it. These findings suggest that hybrid AI-human collaboration models are essential for maintaining originality while benefiting from AI's efficiency.

Overall, the study's findings stress the importance of finding a balance between utilizing the potential of AI and maintaining the integrity of creative processes. This calls for a subtle appreciation of how AI can be an augmentation to human ingenuity rather than replacing it. Such balance is important in different fields, as Munusamy et al.^[27] pointed out in their paper, where they argued for the thoughtful integration of AI with human creativity. As industries continue to evolve in the world of AI, it remains important to consider the ethical and cultural implications attached to these technologies, said Wang and Feng^[28], ensuring that they are used to augment the creativity and expression of human being rather than stifle the same.

6. Limitations

Despite the significant insights gained from this study, certain limitations must be acknowledged to contextualize the findings and guide future research directions.

Methodological limitations

This study employed a qualitative exploratory design, which, while providing in-depth insights into students' perceptions of AI-driven creativity, limits generalizability beyond the study sample. The use of semi-structured interviews, although effective in capturing subjective experiences, does not quantitatively measure creativity before and after AI integration, which could have provided comparative statistical insights.

Sample & population constraints

The study focused exclusively on 25 business students from a single academic institution, excluding educators, AI developers, and industry professionals who play a crucial role in AI integration within business and creative fields. Although thematic saturation was reached, the findings may not fully represent the broader landscape of AI's role in business innovation. Future research should include multi-stakeholder perspectives to ensure a more comprehensive understanding of AI's influence.

Temporal & technological scope

The study was cross-sectional, capturing AI's effects at a single point in time. Given the rapid advancements in AI models and creative tools, findings may become outdated as AI capabilities evolve. A longitudinal study could provide deeper insights into how student perceptions change over time as AI tools become more sophisticated and widely adopted.

Lack of AI-generated output analysis

While the study explores human perceptions of AI's impact on creativity, it does not empirically evaluate AI-generated outputs in business contexts. A future study comparing human-created business models vs. AI-generated business models using creativity assessment metrics could yield more objective conclusions about AI's true impact on originality.

Cultural & ethical variability

AI's impact on creativity is not uniform across cultural and regulatory contexts. This study does not account for variations in AI adoption, ethical concerns, or regional biases in AI-generated content, which may influence findings differently across industries and countries. Future research should explore how AI-driven creativity is shaped by cultural, ethical, and policy considerations to provide a globally relevant analysis.

Acknowledging these limitations, this study provides a foundation for future research to refine methodologies, expand participant diversity, and develop more nuanced AI-human creativity frameworks that address the evolving challenges of AI integration in business education.

7. Conclusion

This study highlights the dual role of AI in business creativity—as both an accelerator of efficiency and a potential inhibitor of originality. While AI-driven tools streamline market research, business strategy formulation, and content generation, the findings reveal a growing concern that over-reliance on AI weakens independent critical thinking, fosters creative homogenization, and diminishes cognitive flexibility. The results emphasize that AI should not be seen as a substitute for human creativity but as a tool that requires strategic and critical engagement.

To address these challenges, business education must integrate AI literacy and adaptability training, ensuring that students actively refine AI-generated outputs rather than adopting them passively. Additionally, AI developers must design adaptive, explainable AI frameworks that allow users to modify and personalize AI-generated content to maintain authenticity and creative differentiation. Industry leaders and policymakers must establish clear ethical guidelines to prevent AI-driven intellectual property conflicts, cultural bias, and excessive automation of creative processes. Despite its insights, this study is limited by its cross-sectional design and student-only participant pool. Future research should expand to educators, industry practitioners, and AI developers, conduct longitudinal studies on AI's evolving impact on creativity, and include comparative assessments of AI-generated vs. human-driven business innovations.

As AI continues to transform business and creative industries, its integration must be carefully managed—ensuring that technology enhances human ingenuity rather than diminishing it. The future of AI-assisted creativity depends not on AI replacing human thought, but on how well businesses, educators, and researchers structure AI as an adaptive, collaborative, and ethically responsible innovation tool.

Conflict of interest

The authors declare no conflict of interest.

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