

Investigating the Effect of ChatGPT-like New Generation AI Technology on User Entrepreneurial Activities

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Abstract: ChatGPT, characterized by its reliance on big data, robust algorithms, and significant computational power, has become a benchmark AI application product, signifying a new breakthrough in AI technology. The emergence of applications based on ChatGPT-like next-generation AI technology has triggered a series of interconnected transformations in human society's ways of thinking, production, living, and governance. However, the academic community has yet to conduct research specifically on innovation and entrepreneurship. Against this backdrop, this study explores the effect of the novel features of ChatGPT-like next-generation AI technology on user entrepreneurs, driving factors, and the entrepreneurial process. The findings reveal the following: (1) User entrepreneurs collect extensive user data through ChatGPT-like AI technology and intelligently analyze it to achieve optimal entrepreneurial judgments and decisions. (2) User entrepreneurs utilize ChatGPT-like AI technology to understand the latent needs of users and to acquire user demand information, such as product shortcomings and appeals. (3) ChatGPT-like AI technology enhances the entrepreneurial intention of user entrepreneurs, stimulates their creative thinking, and expands and deepens their social networks, thereby strengthening their identification with entrepreneurial opportunities. (4) ChatGPT-like AI technology drives and empowers the three-stage evolution of user entrepreneurship: idea generation, prototype development, and commercialization of innovative products. This study not only provides new insights and theoretical foundations for user entrepreneurship research to better explore and leverage the application of ChatGPT-like AI technology in the entrepreneurial process but also offers significant practical implications for encouraging users to actively engage in innovation and entrepreneurship activities, supporting the achievement of sustainable digital entrepreneurship goals.

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1. Introduction

ChatGPT is a revolutionary large language model that automatically generates high-quality text responses and can even mimic human thinking and language expression abilities to some extent. Its characteristics rely on the support of large-scale data, powerful algorithms and high-performance computing resources, making it a phenomenal AI application product and marking a new breakthrough in AI technology. At the same time, the emergence of ChatGPT-like next-generation AI technology has also caused a linked change in thinking, production, life and governance [1,2]. Especially in the field of entrepreneurship, the application of ChatGPT-like next-generation AI technology has begun to have a disruptive impact on traditional entrepreneurial activities. It not only provides entrepreneurs with more opportunities and challenges but also brings them more inspiration and innovative ideas. In this era, the AI + entrepreneurship model has become an irreversible trend, and the application of ChatGPT-like new-generation AI technology will also play an increasingly important role in this field.



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Although the application of ChatGPT-like next-generation AI has broad prospects, academic research in the field of innovation and entrepreneurship is still limited. Current research mainly focuses on the technical performance, application scenarios and business models of ChatGPT-like next-generation AI, and in-depth research on its impact on the entrepreneurial process and user needs is lacking. This lack of research is very obvious in practical applications because the application of ChatGPT-like new generation AI in the field of user entrepreneurship is fundamentally different from traditional entrepreneurial activities, and the application of ChatGPT-like new generation AI in this field brings a new dimension to the entrepreneurial process. The traditional entrepreneurial process is the seeking and utilization of new projects and opportunities driven by entrepreneurial will [3-5]. However, the user entrepreneurship process driven by ChatGPT-like new generation AI is diametrically opposite to traditional entrepreneurship; it is the entrepreneurial willingness to commercialize innovative projects gradually stimulated by existing user innovative projects. User entrepreneurs start by modifying and developing existing products and then proactively utilize or embed ChatGPT-like new generation AI to achieve the integration of identifying, evaluating, and utilizing entrepreneurial opportunities and resources to thus realize the goals of the entrepreneurial process and digitalization of entrepreneurial output [6-9]. In addition, the traditional entrepreneurial approach is full of risks and uncertainties, but the ability of ChatGPT-like next-generation AI technology to mimic human thinking and creativity provides a new way of generating innovative product and service ideas or solutions, which can be an effective tool for users to identify potential entrepreneurial opportunities, assess entrepreneurial risks, and make entrepreneurial decisions. Therefore, understanding the impact of ChatGPT-like next-generation AI technology on user entrepreneurs is crucial for future research. However, existing studies tend to focus on the single role of ChatGPT-like next-generation AI technology and lack holistic studies and analyses of its multiple impacts.

Therefore, this study aims to investigate the multiple effects of ChatGPT-like new-generation AI technology on user entrepreneurial activities in the field of entrepreneurship, with the aim of improving the understanding and awareness of the application and development of ChatGPT-like new-generation AI technology in the field of innovation and entrepreneurship to promote user entrepreneurship. Specifically, this study will focus on the role of ChatGPT-like next-generation AI technology in the process of meeting users' needs, making entrepreneurial decisions, stimulating entrepreneurial creativity, and promoting the dynamic evolution of users' entrepreneurial phases to provide an important reference for an in-depth understanding of the application and promotion of ChatGPT-like next-generation AI technology. In addition, this study provides significant practical insights for encouraging users to actively engage in innovation and entrepreneurship activities and aiding in the realization of sustainable digital entrepreneurship goals.

2. Empowerment of Entrepreneurial Activities by ChatGPT-like New Generation AI Technology

In the rapidly evolving field of artificial intelligence, ChatGPT-like next-generation AI technology has attracted significant attention for its impact on entrepreneurial activities. The subsequent analysis will be conducted from the perspectives of the connotations and characteristics of ChatGPT-like new-generation AI technology, the relationship between ChatGPT-like new-generation AI technology and entrepreneurial entities, and the entrepreneurial process empowered by ChatGPT-like new-generation AI technology to examine the impact and potential of ChatGPT-like new-generation AI technology in the field of entrepreneurship.

2.1. The Connotations and Characteristics of ChatGPT-like New Generation AI Technology

The ChatGPT-like next-generation AI technology refers to a series of AI technologies based on natural language processing that emulate the functionalities of ChatGPT. Developed by various research institutions or companies, these technologies are grounded in neural network technology, enabling self-learning and optimization without direct human intervention and demonstrating robust linguistic logical capabilities. Beyond their exceptional language logical abilities, ChatGPT-like technologies possess innovative features for human-computer interaction, simulating human language expression and thought processes to make machine communication with humans more natural and human-like. These technologies also excel in understanding human intentions and emotions, allowing them to meet user needs more accurately. In terms of value creation, ChatGPT-like technologies exhibit transcendent characteristics and are capable of generating customized outputs based on user inputs to provide personalized service experiences. Moreover, they can create new value through the generation of language models, offering users a wealth of innovative ideas and inspiration. In summary, ChatGPT-like new generation AI technologies, with their powerful language logic capabilities, natural human-computer interactions, and transcendent value creation characteristics, have begun to profoundly influence traditional entrepreneurial activities. These technologies not only provide entrepreneurs with new opportunities and challenges but also enrich them with a plethora of inspiration and innovative thinking, propelling transformation and development in the field of entrepreneurship.

2.2. The Relationship between ChatGPT-like New Generation AI Technology and Entrepreneurial Entities

ChatGPT-like new generation AI technology represents an advanced form of artificial intelligence that plays a significant role for entrepreneurial entities, which encompass both entrepreneurs and the AI technology itself, complementing each other. The synergy and irreplaceable nature of the human-machine relationship constitute the interaction between ChatGPT-like AI technology and entrepreneurial entities [10-12].

In terms of human-machine collaboration, ChatGPT-like AI technology has made substantial progress and breakthroughs in perception and cognition [10,13], demonstrating the gradual enhancement of AI intelligence and fostering technical complementarity between humans and machines. However, as a data-driven method, ChatGPT-like AI technology must undergo extensive data training to increase its intelligence, thereby becoming an effective tool for assisting entrepreneurs. Mourtzis et al. [10] suggested that human intuitive judgment should be combined with the speed at which ChatGPT-like AI technology collects and analyzes information to achieve effective human-machine collaboration. Furthermore, Lawrence [14] indicated that laypeople place greater trust in the algorithmic recommendations of ChatGPT-like AI technology than in human recommendations. This implies that entrepreneurial activities augmented by ChatGPT-like AI technology are likely to be more widely accepted and favored by other groups. Consequently, ChatGPT-like AI technology can assist entrepreneurs in identifying and developing entrepreneurial opportunities, making entrepreneurial decisions, and achieving successful entrepreneurship.

Regarding the irreplaceable relationship, Prüfer et al. [15] argue that the entrepreneurial qualities and skills of entrepreneurs far surpass their digital skills. The current level of ChatGPT-like AI technology cannot fully replace human creativity. Hozdić and Makovec [16] emphasize that due to the interplay of social creation, ChatGPT-like AI technology cannot replace humans. However, ChatGPT-like AI technology can assist in data analysis, forecasting, and decision support, thereby enhancing the efficiency and success rate of entrepreneurs. Therefore, the relationship between ChatGPT-like AI technology and entrepreneurial entities involves collaboration and irreplaceability. Entrepreneurs should leverage the strengths of ChatGPT-like AI technology to improve entrepreneurial

efficiency and success, while ChatGPT-like AI technology should also collaborate with humans to jointly advance the development of the entrepreneurial field.

2.3. The Entrepreneurial Process Empowered by ChatGPT-like New Generation AI Technology

2.3.1. The Entrepreneurial Decision-Making Phase Empowered by ChatGPT-like New Generation AI Technology

One of the core aspects of entrepreneurship is judgment and decision-making, especially when facing uncertainties. ChatGPT-like next-generation AI technology, grounded in natural language processing, has the capacity to handle extensive text information, thus furnishing entrepreneurs with superior decision-making support [17,18]. For example, entrepreneurs can harness the capabilities of ChatGPT-like AI to dissect market demands, uncover new business prospects, and gauge market trends. This AI technology can also forecast future market trajectories based on historical data and sector trends, delivering more precise market predictions to entrepreneurs. Moreover, during the entrepreneurial journey, entrepreneurs are confronted with a myriad of challenges and obstacles, including securing funding, staffing, and marketing strategies. ChatGPT-like AI can offer more holistic and accurate solutions to these issues through its intelligent data analysis and processing capabilities. For instance, it can evaluate the advantages and disadvantages of various financing options, providing entrepreneurs with more suitable financing advice; it can also analyze the competitive landscape of different markets, offering entrepreneurs more targeted marketing strategies.

2.3.2. The Product Commercialization Phase Empowered by ChatGPT-like New Generation AI Technology

In the entrepreneurial process, product commercialization is an exceedingly critical juncture. ChatGPT-like next-generation AI technology can assist entrepreneurs in swiftly achieving the commercialization of their products, thereby propelling the success of their entrepreneurial endeavors [19,20]. By leveraging intelligent data analysis and processing, ChatGPT-like AI can provide entrepreneurs with more precise product promotion strategies. For instance, based on users' search histories and behavioral patterns, ChatGPT-like AI can offer entrepreneurs more accurate customer profiling, thereby helping them better understand customer demands and develop superior products. Concurrently, ChatGPT-like AI can also help entrepreneurs rapidly consolidate initial customers, reducing the time required for the formation of viable innovative products or services and thus significantly enhancing the efficiency and success rate of the entrepreneurial process. Traditionally, the entrepreneurial process often involves considerable time spent identifying suitable customers, establishing contact with them, and gradually building a reliable customer base. However, with the emergence of ChatGPT-like AI, entrepreneurs can now more swiftly identify suitable customers and establish contact within a shorter timeframe, allowing for a more expedited launch of their products or services into the market.

Moreover, ChatGPT-like AI is capable of improving the dynamic process of product element deconstruction, product validation matching, and the commercialization of innovative products through deep learning technology. The conventional entrepreneurial process typically encompasses multiple stages, including product design, validation, and commercialization, often with certain intervals and cyclical characteristics between these stages, leading entrepreneurs to invest substantial time and resources to accomplish these tasks. However, by harnessing the deep learning technology of ChatGPT-like AI, entrepreneurs can more rapidly complete these stages and more effectively advance the implementation of their entrepreneurial projects [17,21]. Therefore, ChatGPT-like new generation AI technology has a positive effect on enabling entrepreneurship. The entrepreneurial decision-making phase can help reduce uncertainty for entrepreneurs, thereby optimizing their judgments and decisions. In the product commercialization phase, it can assist entrepreneurs in quickly integrating initial customers, reducing the time spent on forming a

minimum viable product, and thus significantly enhancing the efficiency and success rate of the entrepreneurial process. Furthermore, the deep learning technology of ChatGPT-like AI can also aid entrepreneurs in more rapidly completing the stages of product design, validation, and commercialization, thereby more effectively advancing the execution of innovative entrepreneurial projects.

3. The Reconstruction of User Entrepreneurship by ChatGPT-like New Generation AI Technology

The application of ChatGPT-like next-generation AI technology in the field of user entrepreneurship has introduced numerous opportunities and advantages for user entrepreneurs. Its emergence has restructured the methods and processes of user entrepreneurship, providing user entrepreneurs with a more intelligent and efficient entrepreneurial environment and exerting a profound impact on user entrepreneurship. This study will conduct an in-depth analysis of this restructuring from three perspectives: the impact of ChatGPT-like new generation AI technology on user entrepreneurial entities, the identification of user entrepreneurial opportunities, and the three-stage evolution process of user entrepreneurship.

3.1. The Effect of ChatGPT-Like New Generation AI Technology on User Entrepreneurs

With the continuous advancement of AI technology, ChatGPT-like next-generation AI has become an indispensable tool for user entrepreneurs. In the process of user entrepreneurship, user entrepreneurs refer to individuals who are dissatisfied with existing products and who innovate or improve upon them due to unmet personal needs, subsequently establishing businesses to commercialize their innovative products [4,7]. Research on the relationship between ChatGPT-like AI and user entrepreneurs has focused primarily on human-AI collaboration. Within this collaborative relationship, the user entrepreneurial entity under the influence of ChatGPT-like AI encompasses both human and AI components that complement each other. During the user entrepreneurship process, the entrepreneur's role undergoes deconstruction and reconstruction, transitioning from a product consumer to a user innovator, then to a user entrepreneur, and finally to a business operator [6,7,22]. The impact of ChatGPT-like AI on user entrepreneurial entities can be categorized into four stages.

3.1.1. The Product Consumer Phase

During the product consumer phase, the application of ChatGPT-like next-generation AI technology provides user entrepreneurs with profound market insights. Initially, emerging as product consumers, user entrepreneurs are individuals who are dissatisfied with existing products and seek innovation or improvements due to unmet personal needs. At this stage, ChatGPT-like AI technology supported its system's intelligent training by extensively collecting and deeply analyzing vast amounts of data from ordinary product users, thereby providing a better understanding of consumer demands and behaviors. These data encompass users' purchasing habits, preference settings, usage feedback, and social interactions, offering ChatGPT-like AI a rich source of information to construct more accurate user profiles. Through the analysis of these data, ChatGPT-like AI can provide customized product recommendations and personalized services that cater to the diverse needs of consumers. In this phase, the role of ChatGPT-like AI is particularly crucial because it assists user entrepreneurs in delving into market potential, identifying unmet consumer needs, and thus conducting targeted product innovation and improvement. The intelligent analytical capabilities of ChatGPT-like AI enable user entrepreneurs to more keenly capture market dynamics and predict consumption trends, providing a scientific basis for product development. Furthermore, ChatGPT-like AI can simulate consumer decision-making processes, aiding user entrepreneurs in understanding consumer psychology and behavior and thereby designing products that are more in line with market demands. In the product consumer phase, the intelligent ChatGPT-like AI services not

only enhance user experience but also provide user entrepreneurs with a powerful market analysis tool, giving them an advantage in fierce market competition.

3.1.2. The User Innovator Phase

In the user innovator phase, ChatGPT-like next-generation AI technology plays a pivotal role in facilitating the transition of individuals from being mere product consumers to becoming user innovators. During this phase, ChatGPT-like AI is capable of gathering and analyzing product usage data from leading users, who typically possess a profound understanding of the products. These users not only have higher expectations for products but also have the capability and motivation to develop and promote innovative products. Through deep learning and data mining techniques, ChatGPT-like AI can extract valuable information from the behavior and feedback of these users, revealing new demands and potential issues. Such insights are crucial for user entrepreneurs because they reveal unmet market needs, indicate directions for product improvement, and even forecast future market trends. The application of ChatGPT-like AI technology enables user entrepreneurs to pinpoint innovation opportunities with greater precision and design more competitive products. It simulates the thought processes of user innovators, assisting entrepreneurs in understanding how to translate user needs into product features and how to transform user pain points into innovative solutions. Moreover, ChatGPT-like AI can assist in market analysis, user research, and product design, helping user entrepreneurs make more informed decisions during the innovation process. In the user innovator phase, ChatGPT-like new generation AI technology not only enhances user entrepreneurs' insight into the market and products but also strengthens their ability to transform personal innovations into tangible products. This technology-driven transformation provides user entrepreneurs with a robust platform, enabling them to advance product innovation with greater confidence and making the leap from user innovators to successful entrepreneurs. With the support of ChatGPT-like AI, user entrepreneurs can respond more swiftly to market changes and achieve product innovation more effectively, thereby securing a favorable position in the competitive market.

3.1.3. The User Entrepreneur Phase

In the user entrepreneur phase, ChatGPT-like next-generation AI technology plays a crucial role, serving not only as a tool for data collection and analysis but also as a catalyst for the transformation of users from innovators to entrepreneurs. During this phase, ChatGPT-like AI conducts systematic and intelligent analysis of the data gathered from the previous two stages, accurately identifying the most commercially viable innovative products [21,23]. This process involves a comprehensive consideration of various factors, such as market trends, consumer preferences, and competitive environments. ChatGPT-like AI utilizes its advanced algorithms and deep learning techniques to determine the underlying potential value of the data, providing entrepreneurs with scientific decision-making support. The application of ChatGPT-like AI enables user entrepreneurs to objectively evaluate their innovative ideas and identify opportunities that truly have market potential and commercial value. Through continuous monitoring and real-time analysis of data, ChatGPT-like AI can help user entrepreneurs promptly adjust their entrepreneurial strategies, optimize product features, and better meet market demands. Furthermore, ChatGPT-like AI can simulate different market scenarios and predict the potential performance of products after they are launched, assisting user entrepreneurs in making wiser choices in product development and market promotion. Driven by ChatGPT-like new generation AI technology, user entrepreneurs can confidently take the crucial step from innovators to entrepreneurs. The support of this technology not only reduces the uncertainty and risks in the entrepreneurial process but also provides users with a new perspective, allowing them to view their entrepreneurial projects from a broader perspective.

With the help of ChatGPT-like AI, user entrepreneurs can more efficiently transform innovative achievements into tangible commercial value, successfully bridging the gap from idea to market.

3.1.4. The business operator phase

In the business operator phase, ChatGPT, a new generation of AI technology, serves as a powerful enabler for the transformation of user entrepreneurs into seasoned business operators. During this phase, ChatGPT-like AI leverages its extensive database and advanced analytical tools to gather and analyze vast amounts of data and information about the operations of similar businesses. This includes critical information on how to achieve mass production of products, optimize operational processes, and strategize marketing campaigns. Through an intelligent analysis system, ChatGPT-like AI provides users with customized business strategies and marketing plans, assisting user entrepreneurs in making more informed decisions across various aspects of business management. It can predict market trends, evaluate the effectiveness of different marketing strategies, and guide user entrepreneurs on how to promote their products more effectively, attract, and retain customers. Furthermore, ChatGPT-like AI can assist user entrepreneurs in optimizing business management, including supply chain management, cost control, and human resource allocation, to enhance operational efficiency and profitability. By simulating different business scenarios, it helps user entrepreneurs identify potential risks and opportunities and devise corresponding countermeasures.

Empowered by ChatGPT-like new generation AI technology, user entrepreneurs can more systematically understand and master the complexities of business operations, thus achieving the transition from a startup to a steadily growing enterprise. This technological support not only enhances the decision-making quality of business operators but also strengthens businesses' adaptability to market changes, laying a solid foundation for long-term development and enhanced market competitiveness. As the business expands and operations deepen, ChatGPT-like AI can also provide more in-depth industry analysis and competitor intelligence, assisting business operators in formulating long-term strategic plans and capturing the pulse of industry development, thereby maintaining a leading position in fierce market competition. With the support of ChatGPT-like AI, business operators can confidently lead their enterprises to success and achieve sustainable development.

3.2. The Effect of ChatGPT-like New Generation AI Technology on User Entrepreneurial Opportunity Identification

The identification of entrepreneurial opportunities for user entrepreneurs is influenced by a multitude of factors, including entrepreneurial intention, creative thinking, prior knowledge, and social networks. The evolution and application of ChatGPT-like next-generation AI technology have the potential to significantly transform or even overturn these elements for user entrepreneurs, thereby enhancing their ability to identify entrepreneurial opportunities.

3.2.1. Enhancing User Entrepreneurs' Entrepreneurial Intention and Strengthening Their Opportunity Identification

According to the theory of planned behavior, an entrepreneur's entrepreneurial intention is contingent upon his or her attitudes toward entrepreneurship, subjective norms, and perceived behavioral control. ChatGPT-like next-generation AI technology has the potential to intervene in these three aspects, thereby enhancing the entrepreneurial intention of user entrepreneurs and reinforcing their ability to identify entrepreneurial opportunities [24-26].

ChatGPT-like AI technology improves the entrepreneurial attitudes of user entrepreneurs. The editability, extensibility, openness, and connectivity of ChatGPT-like AI technology collectively enhance the perceived utility of anticipated outcomes for entrepreneurs, thereby stimulating a strong desire to achieve these outcomes and consequently

improving their entrepreneurial attitudes. Initially, the editability of ChatGPT-like AI technology assisted entrepreneurs in creative innovation. Like digital components, ChatGPT-like AI technology enables entrepreneurs to rapidly generate ideas and edit them according to certain requirements, thereby enhancing their capacity for innovation and the pace of innovation. Ideas generated through ChatGPT-like AI technology can be decoupled from products or services, reducing costs and risks for entrepreneurs while enhancing the quality and competitiveness of products or services. Second, the openness of ChatGPT-like AI technology provides entrepreneurs with a plethora of shared information resources. Like digital platforms, ChatGPT-like AI technology can also interact with other users to access free, shared information resources, such as market research data, consumer feedback, and investor insights. These information resources can aid entrepreneurs in better understanding market demands, optimizing products or services, and lowering the barriers to entry for entrepreneurship. Finally, the extensibility of ChatGPT-like AI technology assists entrepreneurs in navigating complex business environments. Like digital infrastructure, ChatGPT-like AI technology can flexibly expand and customize its functions based on varying needs. For instance, entrepreneurs can utilize ChatGPT-like AI technology for applications in intelligent customer service, data analysis, business process automation, etc., etc., thereby enhancing their efficiency and decision-making quality. Furthermore, the openness and connectivity of ChatGPT-like AI technology can facilitate better interaction and collaboration among user entrepreneurs and other entrepreneurial entities, achieving mutual benefits through joint innovation and resource sharing [27,28]. For example, user entrepreneurs can leverage ChatGPT-like AI technology to establish their own makerspaces, user communities, and other platforms to connect with other entrepreneurs, investors, industry experts, etc., to share experiences, resources, information, and opportunities; expand their social networks and influence; and enhance their entrepreneurial capabilities and competitiveness.

ChatGPT-like AI technology has altered the subjective norms of user entrepreneurs. Subjective norms reflect the perceptions of a specific reference group regarding whether entrepreneurs should engage in entrepreneurial behavior and the pressure that this perception exerts on entrepreneurs. The extensibility, openness, and connectivity of ChatGPT-like AI technology have increased the trust and support of entrepreneurs from other entrepreneurial entities, thereby reducing the entrepreneurial pressure they experience and changing their subjective norms. This phenomenon can be attributed to the intelligent, adaptive, and efficient characteristics of ChatGPT-like AI technology. First, the intelligence and adaptability of ChatGPT-like AI technology enable entrepreneurs to conduct business processing and decision-making more accurately and efficiently. Compared to traditional human decision-making, the data and algorithms that ChatGPT-like AI technology relies on are more objective, comprehensive, precise, and better equipped to address various complex issues and enhance the quality of entrepreneurs' decisions. Consequently, investors and users are more inclined to trust the decisions made by entrepreneurs, thereby reducing the stress and concerns of entrepreneurs. Second, the efficiency and extensibility of ChatGPT-like AI technology also contribute to improving the business processing efficiency and scale of entrepreneurs. Through the automated and intelligent processing capabilities of ChatGPT-like AI technology, entrepreneurs can respond more swiftly to customer demands and manage business processes, thereby enhancing customer satisfaction and market competitiveness. This increase in efficiency can further bolster the trust and support of customers and investors in entrepreneurs, thereby reducing the entrepreneurial stress and uncertainty they face. Finally, ChatGPT-like AI technology can also strengthen the connections and interactions between entrepreneurs and customers. The intelligence and adaptability of ChatGPT-like AI technology assist entrepreneurs in better understanding and meeting customer needs, thereby increasing customer trust and recognition. At the same time, through active interaction and feedback with custom-

ers, entrepreneurs can better adjust their products and services and enhance market competitiveness and customer satisfaction, thus further reinforcing the trust and support of customers and investors in user entrepreneurs.

ChatGPT-like AI technology has reinforced the perceived behavioral control of user entrepreneurs. Perceived behavioral control refers to an individual's perception of the extent to which he or she can control his or her own behavior, including the control factors perceived by the individual and the degree of belief in these control factors. In the field of entrepreneurship, the perceived behavioral control of entrepreneurs involves their cognition of their own abilities, social capital, and other factors, as well as their assessment of the importance of these factors. By enhancing the perceived behavioral control of entrepreneurs, they can better manage their entrepreneurial actions, improve decision-making and resource acquisition capabilities, and thereby increase the success rate of entrepreneurship. The editability, extensibility, openness, and connectivity of ChatGPT-like AI technology not only strengthen the perceived behavioral control of entrepreneurs but also profoundly impact their entrepreneurial activities and decision-making. First, the extensibility of ChatGPT-like AI technology provides user entrepreneurs with powerful data search and processing capabilities, helping them better understand market demands and industry trends. ChatGPT-like AI technology can collect, integrate, and analyze vast amounts of data and information, enabling entrepreneurs to more accurately infer consumer behavior preferences, predict industry development trends, and explore new areas. These capabilities assist entrepreneurs in making better decisions and plans while also enhancing their decision-making abilities and thus strengthening their perceived control factors over entrepreneurial behavior. Second, the openness and connectivity of ChatGPT-like AI technology facilitate connections and communication between entrepreneurs and other entrepreneurial entities, allowing them to more effectively acquire resources and share experiences. ChatGPT-like AI technology enables entrepreneurs to easily engage in direct dialog and exchange with other entrepreneurs, investors, industry experts, and government officials. This open environment promotes the collision of ideas and innovation while also increasing the possibility of resource acquisition and sharing for entrepreneurs. Through communication with others, entrepreneurs can continuously learn and absorb new knowledge and experience, enhance their social capital, and further strengthen their belief in their control over entrepreneurial behavior. Finally, the editability of ChatGPT-like AI technology allows entrepreneurs to customize and adjust their workflow and information processing methods according to their needs, thereby allowing them to better adapt to the rapidly changing market environment. The flexibility and customizability of ChatGPT-like AI technology enable entrepreneurs to tailor the input and output of ChatGPT-like AI technology to their own needs and preferences, making them more efficient in processing information and decision-making while also enhancing their perceived control factors over entrepreneurial behavior.

3.2.2. Stimulating User Entrepreneurs' Creative Thinking and Strengthening Their Opportunity Identification

As the era progresses and technology advances, ChatGPT-like next-generation AI technology is profoundly influencing the development of various industries. In the fields of innovation and entrepreneurship, ChatGPT-like new generation AI technology serves as an intelligent tool that not only assists entrepreneurs in better identifying entrepreneurial opportunities but also drives the formation of innovative product/service models and promotes the realization of open innovation models, thereby stimulating the creative thinking of entrepreneurs and enhancing their opportunity identification. First, ChatGPT-like new generation AI technology can facilitate the formation of innovative product/service models. In the past, product/service innovation often relied on professional knowledge and market research, which required a significant investment of time and labor, and it was challenging to achieve comprehensiveness and depth. However, with the

emergence of ChatGPT-like next-generation AI technology, entrepreneurs can integrate it into their products or services. By leveraging the technology's natural language processing and intelligent analysis capabilities, they can gather extensive user feedback, comments, and demand information, which can then be used as a basis for precise market research and product/service innovation, thereby improving the efficiency and success rate of innovation. Second, ChatGPT-like new generation AI technology can also promote the realization of open innovation models. Open innovation refers to the process of opening up innovation activities to internal and external innovation partners, achieving innovation through sharing and collaboration. ChatGPT-like New Generation AI is an ideal platform for open innovation. It can connect entrepreneurs, investors, technical experts, market experts, and other resources and talents, establishing a diversified open innovation network. The sharing and collaboration of knowledge and technology can help entrepreneurs obtain innovation resources and support in various aspects, accelerating the entrepreneurial process and increasing the success rate of entrepreneurship. Finally, ChatGPT-like new generation AI technology can also stimulate the creative thinking of entrepreneurs, enhancing their opportunity identification. Entrepreneurs need to continuously discover and create new business models and market opportunities, which requires creative thinking. ChatGPT-like next-generation AI technology can stimulate and guide the creative thinking of entrepreneurs through intelligent interaction and natural language processing, promoting the discovery and identification of new business opportunities [29-31].

3.2.3. Expanding User Entrepreneurs' Social Networks and Strengthening Their Opportunity Identification

With the rapid development of new generation AI, user entrepreneurs can quickly establish connections with a large number of users and other entrepreneurs through ChatGPT-like new generation AI technology, thereby expanding and deepening their social relationship networks and strengthening the identification of entrepreneurial opportunities. The following will discuss how ChatGPT-like new generation AI technology promotes the expansion and deepening of user entrepreneurs' social relationship networks and how to utilize this social network to enhance their identification of entrepreneurial opportunities.

On the one hand, ChatGPT, a new generation of AI technology, has facilitated the establishment of user community networks. In the AI era, interactions between user entrepreneurs and users are particularly important for cocreating value. The openness and connectivity of ChatGPT-like next-generation AI technology can help entrepreneurs build user community networks, thereby expanding and deepening their social relationship networks. Digital infrastructure such as digital components, digital platforms, and online communities embedded in ChatGPT-like next-generation AI technology can bring a large number of user groups to user entrepreneurs, enabling an increasing number of users to join the user communities they create and accumulating a large number of initial users for user entrepreneurs [27,32,33]. As the number of users increases, the perceived value brought to users by the user community network also gradually increases. For example, for social value, entertainment value, information value, and financial value, the greater the value perceived by users is, the greater their loyalty to the community. Therefore, the establishment of user community networks not only helps entrepreneurs identify entrepreneurial opportunities but also helps maintain relationships between entrepreneurs and community members, increase mutual trust, and thus deepen the social relationship network of entrepreneurs.

On the other hand, ChatGPT-like next-generation AI technology promotes the formation of communication and cooperation mechanisms among entrepreneurs. As an intelligent conversational technology, ChatGPT, a new generation of AI technology, has not only made significant progress in language processing but also played an important role

in promoting social interaction methods in the digital era. In today's highly competitive market environment, entrepreneurs need to actively seek external cooperation and resource sharing to achieve the goal of win-win cooperation. However, in reality, the social relationship networks of entrepreneurs are often limited. The openness and connectivity of ChatGPT-like next-generation AI technology provides opportunities for connections between entrepreneurs, promotes communication and cooperation, and broadens the social relationship networks of entrepreneurs. ChatGPT-like next-generation AI technology can help entrepreneurs better understand market trends and competitors and find suitable partners, further broadening the social relationship networks of entrepreneurs. At the same time, ChatGPT, a new generation of AI technology, provides entrepreneurs with a convenient way to connect with entrepreneurs in other industries. Through the openness of digital platforms and digital components embedded in ChatGPT-like next-generation AI technology, entrepreneurs can easily find other entrepreneurs and communicate with them, share resources and experiences, and achieve resource sharing and complementarity, thereby broadening the social relationship network. Moreover, in the process of informal communication, entrepreneurs are more inclined to share their technical and management experience, gradually establishing long-term and stable trust relationships and deepening the original social relationship network of user entrepreneurs.

3.3. The Effect of ChatGPT-like New Generation AI Technology on the Three-stage Evolutionary Process of User Entrepreneurship

3.3.1. Idea Generation Phase

In the current wave of innovation and entrepreneurship, ChatGPT-like next-generation AI technology, as a powerful natural language processing tool, has begun to influence different stages of user entrepreneurial activities. During the idea generation phase, ChatGPT-like new generation AI technology promotes the process of user entrepreneurs seeking solutions through the integration and sharing of resources, helping them to more quickly transform ideas into business value [21,34]. In the idea generation phase, user entrepreneurs need to explore the sources of ideas, often through resource bricolage, to explore solutions. The natural language processing capabilities of ChatGPT-like next-generation AI technology can help user entrepreneurs more quickly obtain useful information resources, including others' needs, market trends, and relevant professional knowledge, thereby providing them with more resource bricolage plans. For example, user entrepreneurs can use ChatGPT-like next-generation AI technology for market research to understand the needs and pain points of potential users to better design solutions. In addition, ChatGPT-like new generation AI technology can also help user entrepreneurs generate ideas and creativity and provide useful creative inspiration, thereby providing them with more creative possibilities.

Constrained by their own resources, such as funds and professional knowledge, user entrepreneurs need to choose to develop demand solutions by utilizing the resources around them. ChatGPT-like next-generation AI technology can help user entrepreneurs utilize their own knowledge resources and user community resources to complete resource bricolage, providing them with more sources of ideas and solutions. For example, user entrepreneurs can search for and collect professional knowledge in ChatGPT-like next-generation AI technology and communicate and share experiences with other entrepreneurs, thereby obtaining more resources and support. After user entrepreneurs obtain information resources such as demand response and feedback, ChatGPT-like next-generation AI technology can also help them identify and reflect on needs and further conceptualize solutions. For example, user entrepreneurs can use ChatGPT-like next-generation AI technology for demand analysis and data mining to obtain deeper insights into needs and feedback, thereby improving the design of solutions. Finally, after completing the creative conception, user entrepreneurs can also use ChatGPT-like next-generation AI

technology to summarize their own original resources with the knowledge and information obtained from the user community and develop solutions by matching problems with answers. In addition, user entrepreneurs can share new ideas in the user community for others to use for free, effectively strengthening the innovative atmosphere of the user community.

3.3.2. Prototype Development Phase

In the prototype development phase of user entrepreneurial activities, ChatGPT-like next-generation AI technology also plays a significant role. Novel and implementable innovative ideas drive user entrepreneurs to collaborate with user community members and develop product prototypes through a resource orchestration model.

First, regarding the driving role of innovative ideas with novelty and feasibility in the prototype development phase, ChatGPT-like next-generation AI technology has a substantial impact. When user entrepreneurs are in need of new innovative ideas, they can utilize ChatGPT-like next-generation AI technology to gain additional inspiration, especially for ideas that require specific domain knowledge. ChatGPT-like next-generation AI technology can provide knowledge and information from relevant fields, offering user entrepreneurs more comprehensive resources [24,29]. Moreover, ChatGPT-like new generation AI technology can assist user entrepreneurs in identifying and understanding their target audience, as well as the needs and reactions of these audiences to innovative ideas. This is crucial for user entrepreneurs because it helps them to better adjust and improve their innovative ideas and collaborate with user community members in prototype development. During the prototype development phase, ChatGPT, a new generation of AI technology, can also aid user entrepreneurs in better managing and organizing feedback and suggestions from the user community, as well as in allocating and utilizing resources more effectively. This can help them achieve their prototype development goals more quickly, increasing the likelihood of entrepreneurial success. Driven by innovative ideas, user entrepreneurs proactively share information within the user community to attract members to participate in collaborative resource development. Through interaction with community members, user entrepreneurs can obtain creative feedback and suggestions, which are information resources that can be organized and categorized for better reflection and idea optimization. This is another important role of ChatGPT-like next-generation AI technology, as user entrepreneurs can use the language generated by ChatGPT-like next-generation AI technology for more efficient and accurate information classification and organization. Finally, based on resource categorization, user entrepreneurs will conduct resource allocation to achieve prototype development goals. ChatGPT-like next-generation AI technology can assist user entrepreneurs in making intelligent recommendations during the resource allocation process. With its powerful natural language processing capabilities and extensive knowledge base, ChatGPT-like next-generation AI technology can quickly identify and match the needs of user entrepreneurs, providing corresponding resource suggestions and solutions [35,36]. Therefore, in the prototype development phase of user entrepreneurial activities, ChatGPT-like new generation AI technology, through resource integration and sharing, strengthens the innovative needs of user entrepreneurs and promotes the smooth realization of prototype development.

3.3.3. Commercialization of Innovative Products Phase

In the commercialization phase of innovative products, user entrepreneurs need to engage in resource extension activities to maximize the value of their innovations. In this process, ChatGPT-like next-generation AI technology has a positive impact on user entrepreneurs. First, ChatGPT, a new generation of AI technology, can serve as an intelligent assistant for user entrepreneurs, helping them better understand market demands and user feedback. With natural language processing and machine learning technologies, ChatGPT-like next-generation AI technology can assist user entrepreneurs in analyzing

large amounts of market data, user comments, and feedback, thereby increasing their understanding of user needs and reactions to products. Based on the analysis of ChatGPT-like next-generation AI technology, user entrepreneurs can better grasp market trends and user needs, making their innovative products more aligned with market demands and user preferences [37,38]. Second, ChatGPT, a new generation of AI technology, can also act as a booster of creativity for user entrepreneurs, helping them uncover more ideas and possibilities. During the entrepreneurial process, user entrepreneurs may encounter creative bottlenecks and struggle to break through their own mental set. ChatGPT-like next-generation AI technology can provide them with more creative inspiration, stimulating their creativity and imagination. Through dialog with ChatGPT-like new generation AI technology, user entrepreneurs can continuously delve into their ideas, discovering more possibilities and points of innovation [39,40].

In addition, ChatGPT, a new generation of AI technology, can also serve as an intelligent collaboration partner for user entrepreneurs, helping them better integrate resources and develop projects. In terms of resource integration, ChatGPT-like next-generation AI technology can help user entrepreneurs quickly find and contact relevant resource providers, such as investors, suppliers, and partners. At the same time, ChatGPT, a new generation of AI technology, can also assist user entrepreneurs in managing and coordinating the work of team members, making the team more efficient and collaborative. Finally, ChatGPT, a new generation of AI technology, can also act as an intelligent marketing assistant for user entrepreneurs, helping them promote and market their innovative products. Through the natural language processing and machine learning technologies of ChatGPT-like next-generation AI technology, user entrepreneurs can better understand user reactions and needs for the product and formulate more precise marketing strategies [41-43]. At the same time, ChatGPT, a new generation of AI technology, can help user entrepreneurs monitor market changes and the dynamics of competitors in real time and adjust and optimize marketing strategies promptly. Therefore, ChatGPT-like new generation AI technology has a positive impact on the activities of user entrepreneurs in the commercialization phase of innovative products. With the intelligent support and assistance of ChatGPT-like next-generation AI technology, user entrepreneurs can better grasp market trends, delve into user needs, innovate the functional attributes and product vision of their products, and thus advance activities for resource extension and value maximization. ChatGPT-like next-generation AI technology can help user entrepreneurs quickly understand the latest developments and trends in the industry, uncover potential user needs, effectively position product functionality and vision, and enhance the satisfaction and market competitiveness of innovative products. Furthermore, ChatGPT-like new generation AI technology can also assist user entrepreneurs in resource integration and development, for example, by establishing an intelligent resource management platform, helping user entrepreneurs quickly integrate, manage, and allocate various resources, and improving the work efficiency and resource utilization efficiency of user entrepreneurs.

4. Conclusions and Discussion

4.1. Main Conclusions

This study has examined and analyzed the multiple roles of ChatGPT-like new generation AI technology in the field of entrepreneurship and its effect on the entrepreneurial process activities of user entrepreneurs, as illustrated in **Figure 1**. The ChatGPT-like new generation of AI technology empowers user entrepreneurs with product innovation capabilities, creative thinking, and the formation of social relationship networks through new features such as self-optimizing learnability, human-computer interaction transcendence, and value generation transcendence. The product innovation capabilities, creative thinking, and social relationship networks empowered by ChatGPT-like AI technology drive

the dynamic evolution of the three-stage entrepreneurial process of user entrepreneurs, which includes idea generation, prototype development, and commercialization, ultimately promoting the development of user entrepreneurial activities.

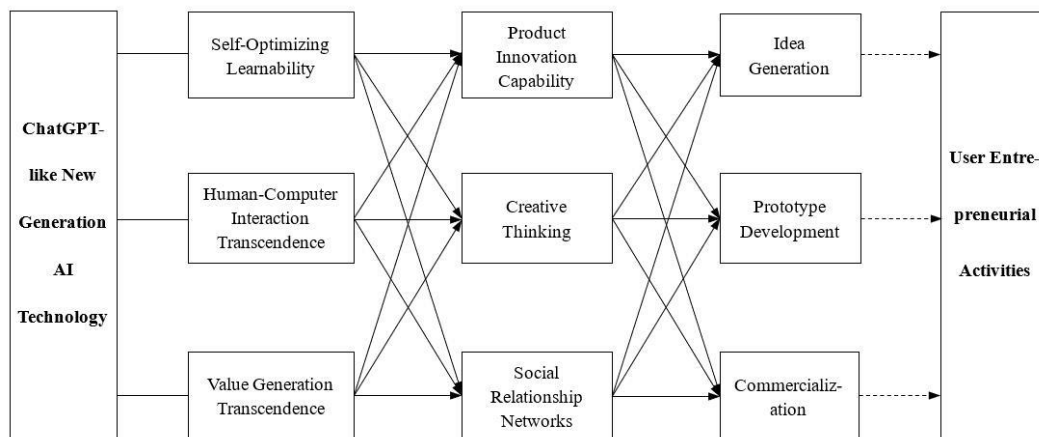


Figure 1. Integrated model of ChatGPT-like new generation AI technology empowering user entrepreneurial activities

(1) User entrepreneurs utilize ChatGPT-like next-generation AI technology to collect and intelligently analyze vast amounts of user data, which enables them to make the best entrepreneurial judgments and decisions. This AI technology offers user entrepreneurs more intelligent tools that help them develop innovative products more efficiently and reduce risks during the entrepreneurial process, thereby increasing the chances of success. In the product consumer phase, ChatGPT, a new generation of AI technology, can collect data from a large number of ordinary product users to support intelligent system training. In the user innovator phase, it can gather product usage data from leading users, identify new needs and problems, and assist user entrepreneurs in creating more competitive products. In the user entrepreneur phase, ChatGPT-like new generation AI technology can use the data collected in the first two phases for intelligent analysis, selecting the most suitable innovative products for commercialization, and helping entrepreneurs make entrepreneurial judgments and decisions. In the business operator phase, ChatGPT, a new generation of AI technology, can use data and information about the operations of other similar businesses to construct intelligent analysis systems, helping users successfully start their businesses.

(2) User entrepreneurs employ ChatGPT-like next-generation AI technology to uncover latent user needs and gather information on user requirements, including product deficiencies and appeals. As an intelligently systematized tool, it can analyze a plethora of user data to comprehend the genuine sentiments of users regarding products. These data may include aspects such as product usage experience, feedback, suggestions, and complaints. By conducting a profound analysis of these data, ChatGPT-like new generation AI technology can identify potential user needs and product flaws, furnishing user entrepreneurs with exhaustive user profiles that aid in a more profound understanding of user demands. The user requirement information gleaned through ChatGPT-like next-generation AI technology is deemed more precise than that obtained through conventional quantitative methods for anticipating user demands. This precision stems from its capacity to analyze substantial user data, which in turn provides clearer insight into the authentic desires and experiences of users. With these data, user entrepreneurs can develop products that are more attuned to user requirements, thus bolstering their competitive edge in the marketplace. Moreover, ChatGPT, a new generation of AI technology, can assist user entrepreneurs in recognizing the defects and inadequacies of their products. By scrutinizing user feedback and suggestions, it can detect the vulnerabilities of products

and provide constructive suggestions for enhancement. These data enable user entrepreneurs to expedite product improvements, augment user satisfaction, and expand their market share.

(3) ChatGPT-like new generation AI technology elevates the entrepreneurial intent of user entrepreneurs, ignites their creative thinking, and deepens their social relationship networks, thereby enhancing their ability to identify entrepreneurial opportunities. This technology, characterized by self-optimizing learnability, transcendent human-computer interaction, and transcendent value generation, improves the entrepreneurial attitude of user entrepreneurs and strengthens their intent to start businesses. These features, which are hallmarks of new-generation AI technology, not only improve the entrepreneurial attitude of user entrepreneurs and reinforce their intent but also drive the formation of innovative models and stimulate creative thinking, further enhancing the identification of entrepreneurial opportunities. First, the features of ChatGPT-like AI technology ameliorate the entrepreneurial stance of user entrepreneurs, elevating their intent to engage in entrepreneurial activities. This heightened intent also bolsters the recognition of entrepreneurial opportunities and propels the process of leveraging ChatGPT-like AI technology for identifying external information. Second, the features of ChatGPT-like AI technology facilitate the development of innovative product and service models and promote the establishment of open innovation models, collectively igniting the creative thinking of entrepreneurs. This enables them to conceive of innovative ideas and thoughts, reinforcing their ability to identify entrepreneurial opportunities. Finally, ChatGPT-like AI technology has been instrumental in driving the creation of user community networks and advancing the establishment of communication and collaboration mechanisms among entrepreneurs. These factors have jointly expanded and intensified the social networks of entrepreneurs, augmenting their ability to uncover entrepreneurial opportunities. In conclusion, ChatGPT-like new generation AI technology has exerted a positive influence on user entrepreneurs by invigorating their creative thinking and further strengthening their identification of entrepreneurial opportunities, thus providing them with a plethora of opportunities and resources.

(4) ChatGPT-like new generation AI technology serves as a catalyst and empowering force throughout the three-stage evolution of user entrepreneurship: idea generation, prototype development, and the commercialization of innovative products. This AI technology, distinguished by its capacity to provide a plethora of informational resources, also functions as an assistant throughout various phases of entrepreneurial activity. In the idea generation phase, where the onus is on user entrepreneurs to find solutions and explore through resource bricolage, ChatGPT-like next-generation AI technology aids in securing pertinent informational resources. These encompass insights into others' needs, market trends, and domain-specific expertise, thereby presenting a range of options for resource bricolage. Furthermore, user entrepreneurs can employ this AI technology to amalgamate their inherent resources with knowledge and information gleaned from user communities, thereby devising solutions. As the process advances to the prototype construction phase, user entrepreneurs are tasked with collaboratively developing product prototypes with community members. ChatGPT-like next-generation AI technology assists in this integration of resources, facilitating the orchestration of resources to achieve prototype construction. Upon reaching the commercialization phase of innovative products, where the goal is to maximize product value through resource extension activities, ChatGPT-like new generation AI technology acts as an intelligent aid, aiding user entrepreneurs in discerning market demands and assimilating user feedback. It also doubles as an intelligent collaborative companion, assisting in the consolidation of resources and project development. In addition, intelligent marketing assistants can guide user entrepreneurs in formulating more accurate marketing strategies.

4.2. Theoretical Contributions

The application of ChatGPT-like new generation AI technology in the domain of innovation and entrepreneurship has garnered widespread attention. This research delves into the various roles that ChatGPT-like new generation AI technology plays in the user entrepreneurship process and its impact on user entrepreneurs, offering the following theoretical contributions to the academic community and practitioners.

(1) Investigating the application of ChatGPT-like next-generation AI technology from an innovation-driven perspective. This study explores the use of ChatGPT-like AI technology in the entrepreneurial field, with an emphasis on innovation as the driving force. While traditional entrepreneurship is a process in which entrepreneurs seek new projects and opportunities based on their intentions, user entrepreneurship places greater importance on meeting one's own needs and leveraging innovation to bring new products to the market, thereby better satisfying the specific demands of users. This study, therefore, focuses on the role of ChatGPT-like AI technology in capturing user needs, informing entrepreneurial decisions, stimulating innovative creativity, and facilitating the entrepreneurial process. This extends the boundaries of traditional entrepreneurship research to more deeply comprehend the application of ChatGPT-like AI technology in entrepreneurship. Notably, ChatGPT-like AI technology can assist user entrepreneurs in swiftly grasping market trends and user demands, enabling the creation of practical entrepreneurial plans and providing valuable insights into user preferences, product features, and market opportunities. Additionally, ChatGPT-like AI technology can inspire innovation and creativity among user entrepreneurs by providing timely information on the market and user feedback, allowing for prompt adjustments and improvements to their products. In conclusion, this study provides user entrepreneurs with new avenues of thought and a theoretical foundation for better exploring and harnessing the application of ChatGPT-like next-generation AI technology in their entrepreneurial endeavors.

(2) Inquiry into innovation theory based on artificial intelligence (AI) technology. Exploring the role of ChatGPT-like new generation AI technology in the user entrepreneurship process from the perspective of AI technology can provide entrepreneurs with not only more opportunities and challenges but also a greater influx of innovative ideas and inspiration. ChatGPT-like AI technology can simulate human thought and creativity, offering new avenues for innovation and solutions to user entrepreneurs through technologies such as deep learning and natural language processing while also assisting in risk assessment and decision-making. This study examines the application and development of artificial intelligence technology in the entrepreneurial field, proposing new ideas and theoretical frameworks based on the integration of innovation theory and AI technology, aiming to provide more support and guidance for user entrepreneurs. This research perspective is conducive to promoting the application of AI technology and innovation in the entrepreneurial field, offering more possibilities and opportunities for future entrepreneurial development.

(3) To explore the application of ChatGPT-like next-generation AI technology from the perspective of user entrepreneurship. This study focuses on examining the application of ChatGPT-like new generation AI technology from the user entrepreneurship perspective, particularly its role in user demand acquisition, entrepreneurial decision-making, stimulation of innovation and creativity, and facilitation of the entrepreneurial process. From this perspective, a deeper understanding of the cognition and behavior of user entrepreneurs can be achieved, providing more ideas and theoretical foundations for the application of ChatGPT-like AI technology in user entrepreneurship.

For instance, in terms of user demand acquisition, ChatGPT-like AI technology can assist user entrepreneurs in obtaining more accurate and detailed market information and user feedback, thereby better capturing market demands. Entrepreneurial decision-mak-

ing can offer comprehensive and systematic decision support to user entrepreneurs, aiding them in making wiser choices. The stimulation of innovation and creativity can provide user entrepreneurs with a plethora of inspiration and insights, helping them to pioneer new avenues of thought. In propelling the entrepreneurial process, ChatGPT-like AI technology can offer holistic assistance and support, enabling user entrepreneurs to rapidly iterate and refine their products and services. Consequently, the application of ChatGPT-like AI technology in user entrepreneurship holds broad prospects and plays a significant role.

4.3. Practical Implications

According to the conclusions of this study, ChatGPT-like new generation AI technology has multiple roles and impacts on the user entrepreneurship process, which has practical implications for user entrepreneurs, businesses, and governments. First, at the level of user entrepreneurs, participation in or the construction of user communities is an essential support for their entrepreneurial activities. Therefore, during the entrepreneurial process, user entrepreneurs need to focus on building their social relationship networks and establishing cooperative relationships to cocreate value. ChatGPT-like AI, as a powerful communication platform, provides a convenient and efficient platform for user entrepreneurs to communicate with other entrepreneurs or potential customers. Moreover, ChatGPT-like new generation AI technology can generate natural language to offer user entrepreneurs advice and guidance on market analysis, marketing strategies, financing, and other aspects, thereby promoting their innovation and entrepreneurship activities.

Second, at the corporate level, businesses must recognize the significant value of social networks represented by user communities and establish stable, ongoing interactive relationships with users. This enhances the efficiency and effectiveness of their innovation and entrepreneurship practices and improves business performance. ChatGPT-like next-generation AI technology, as a vast knowledge base and intelligent Q&A system, can assist businesses in better understanding market demands and customer needs, providing valuable information for corporate innovation and development. Furthermore, businesses can utilize the natural language generation capabilities of ChatGPT-like next-generation AI technology to introduce their products and services to potential customers, thereby expanding their market share.

Third, the government should actively encourage the construction of digital platforms and provide policy support and behavioral assistance for multiple stakeholders, such as consumers, businesses, and research institutions, to collaboratively engage in value cocreation activities. This, in turn, can enhance the innovation and entrepreneurship enthusiasm of various parties and promote China's economic development. Through digital platforms, consumers can more conveniently access information and products, offering more references and choices for their purchasing decisions; businesses can more efficiently manage and market their products and services, leading to stronger innovation; and research institutions can better collaborate with businesses and consumers, jointly advancing the development and innovation of science and technology. The government's policy support and behavioral assistance can effectively promote the construction and development of digital platforms while also increasing the enthusiasm of various stakeholders and driving economic growth. ChatGPT-like next-generation AI technology can provide government decision makers with more references and suggestions based on extensive data and language models. It can analyze and predict the impact of different policies and actions on the construction of digital platforms and the collaborative innovation and entrepreneurship of multiple stakeholders, thereby guiding the government to provide more scientific policy support and behavioral assistance to help achieve sustainability entrepreneurship goals.

4.4. Limitations and Future Research

This study, in its examination of the role of ChatGPT-like new generation AI technology within the innovation and entrepreneurship landscape, recognizes several limitations and proposes avenues for future scholarly inquiry. Initially, this research predominantly focused on the effects of this technology on user entrepreneurs, neglecting to account for the influence on other pivotal actors within the entrepreneurial ecosystem. Additionally, while this study has focused on the technology's capacity to assist user entrepreneurs in identifying user needs, making entrepreneurial decisions, fostering entrepreneurial creativity, and advancing the entrepreneurial process, its impact on entrepreneurs' personal competencies and psychological well-being has not been thoroughly explored. Furthermore, this study lacked a comprehensive evaluation of the utilization and efficacy of ChatGPT-like AI technology, suggesting that future research should delve deeper into assessing and debating its application's effectiveness and practicality.

Future research could benefit from a more exhaustive and holistic exploration of the manifold roles and impacts of ChatGPT-like AI technology in the realms of innovation and entrepreneurship. There is a substantial opportunity to broaden the scope of research into its application concerning the innovation of entrepreneurial models, product design, and marketing strategies. The influence of additional stakeholders in the entrepreneurial process, including investors, venture capital firms, and entrepreneurial consulting agencies, is also of paramount importance and should be the subject of future investigations. Additionally, it would be insightful to scrutinize the effects of ChatGPT-like AI technology on consumer needs and experiences from the end-user's vantage point, as well as its adaptability within diverse cultural and linguistic milieus. In light of the continuous evolution and enhancement of ChatGPT-like AI technology, future research could advantageously investigate the implications of its newer iterations and functionalities to more adeptly navigate the complexities and opportunities within the entrepreneurial sphere. To summarize, the integration and academic study of ChatGPT-like new generation AI technology in the field of innovation and entrepreneurship present expansive prospects and potential, with a multitude of meaningful directions and questions ripe for rigorous exploration in subsequent scholarly work.

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