

GAS Journal of Economics and Business Management (GASJEBM)

Volume 2 | Issue 12, 2025

Homepage: https://gaspublishers.com/gasjebm-home/



Influence of Artificial Intelligence Tools and Innovation on Entrepreneurial Success

Abdullateef Ajibola Adepoju¹, Adewale Obafemi Thomas² & Trimisiyu Omotayo Lawal³

Received: 25.10.2025 | Accepted: 22.11.2025 | Published: 02.12.2025

*Corresponding Author: Abdullateef Ajibola Adepoju

DOI: 10.5281/zenodo.17786183

Abstract Original Research Article

The excessive use of the instruments of Artificial Intelligence (AI) has transformed the entrepreneurial landscape radically, yet the dynamics of interaction between AI and innovation and entrepreneurial success have not received sufficient research. The study is aimed at the intellectual discussion of the interdependence of AI tools and innovation on entrepreneurial performance, both in the developed and developing economies. The research provides the answer to the most crucial questions, including how AI tools impact entrepreneurial performance, what are the mediating factors of innovation, and situational issues that influence the performance of AI-driven entrepreneurship. The conceptual and qualitative method of the paper review involves the secondary data through peer-reviewed articles, books, and historical texts, newspapers, and credible internet data. According to the analysis, the high degree of innovation is enhanced with the help of strategic use of AI tools as a result, the higher the level of growth, profitability, and sustainability of entrepreneurial activity. In addition, the study presents the significant barriers, such as the adoption gaps, and resources shortage, which intermediates AI and entrepreneurial performance. Based on these findings, the study offers the policy and management practices that would support the adoption of AI, foster innovativeness, and improve the dynamic capabilities in the entrepreneur ecosystems. In conclusion, AI application used in conjunction with innovation is a significant facilitator of entrepreneurship success that offers practical information to businessmen, policymakers, and business organizations who thrive on innovation.

Keywords: Artificial Intelligence, Innovation, Entrepreneurial Success, Strategic Management, Business Performance.

Copyright © 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

1.0 Introduction to the Study

1.1 Background of the Study

The rapid advancement of Artificial Intelligence (AI) transformed the nature of the business environment as a whole, leaving the innovation, strategy, and success of business entrepreneurs (Usman et al., 2024; Al-Mamary, 2025). AI tools are implemented as technological

facilitators and intellectual companions that can improve the decision-making process, meaningfulness, and strategic responsiveness in business operations such as marketing, financial, and customer interaction (Harahap et al., 2024; Alshurideh et al., 2024). The data-intensive volatile economy presents new opportunities to entrepreneurs in order to use AI to identify opportunities, allocate resources and solve problems



¹Randatech Systems Ltd, Gidan Nasir Ahmed, No. 3 Zaria Road, Opposite Ja'oji Quarters, Kano, Nigeria.

² Makeskyblue A45-1225, 28th St E, Prince Albert, SK S6V 6V3, Saskatchewan, Canada.

³Department of Management, School of Arts, Management and Social Sciences, Skyline University Nigeria, Kano.

in new and innovative ways (Chukwuka and Igweh, 2024; Secundo et al., 2025). Predictive, personalized, and robotized innovations increase productivity and reduce skepticism and uncertainty and solidify strategic decision-making, becoming the key traits of entrepreneurial success that enables an innovative and flexible character (Lopez-Solis et al., 2025; Csaszar et al., 2024; Julie et al., 2024; Redondo-Rodriguez et al., 2025).

Financing, management, and infrastructure are problem areas of venture in the developing and AI offers a leap-frogging economies, opportunity, facilitating competitiveness under the influence of the digital transformation and intelligent innovation (Kuzior et al., 2023; Senadjki et al., 2023). AI is also pushing open innovation ecosystems and can result in the creation of creativity and teams collaborating (Secundo et al., 2025; Govindan, 2022). Entrepreneur success is in aligning AI with the business strategic intention, leadership, and organisational learning, whereas the human aspect, mindset, innovation receptiveness, and adaptability, offers sustainability in value generation (Mohan, 2024; Tominc et al., 2023; Maulida et al., 2024; Ali et al., 2025). The paper analyses conceptually the application of AI tools and innovations in the success of entrepreneurs using the available literature and theories.

1.2 Problem Statement

Although artificial intelligence (AI) can result in innovation and competitiveness, the majority of entrepreneurs and in particular in the developing economies struggle to make the implementation of AI visible success (Harahap et al., 2024; Secundo et al., 2025). Lack of equal technological potential, low measures of digital literacy and underdeveloped cultures of innovation create a gap between the potential of AI and their actuality (Usman et al., 2024; Alshurideh et al., 2024). Most entrepreneurial ecosystems have barriers to the appropriate use or application of AI tools, which are lack of skills and due to poor infrastructures and absence of strategic innovation systems (Chukwuka and Igweh, 2024; Maulida et al., 2024).

Its success is not based on technology adoption but on the creation of organizational mind that would contribute to value creation and remain afloat in the long run (Aliyu Mohammed, 2024). The internal innovation capacity and external enablers such as policy support, infrastructure, and strategic learning capacity are also determining the results of the entrepreneurship (Ali et al., 2025; Bernadine and Amaugo, 2025). High cost, skills deficiency, fragmented innovation systems, etc., are some of the barriers that are likely to cause partial AI implementation in those countries as Indonesia and Nigeria, inhibiting its strategic impact (Kuzior et al., 2023; Senadjki et al., 2023). The combinatorial power of AI becomes evident only together with the new modes of thinking and responsive environments of learning (Julie et al., 2024; Redondo-Rodriguez et al., 2025).

Similarly, the perception of the interaction between AI tools and innovation as the impact on the success of the entrepreneurship is also the foundation of the current study with a particular emphasis on the role that knowledge, culture, and strategic leadership play in the emerging economies.

1.3 Significance of the Study

The current study is a part of the growing body of literature on the implications of artificial intelligence (AI) tools and innovation on entrepreneurial success making contributions to the phenomenon in specific in emerging economies where structural and resource constraints are still widespread (Csaszar et al., 2024; Mohan, 2024; Maulida et al., 2024). Conceptually speaking, it integrates the AI-based entrepreneurship and innovations management, as well as the strategic decision-making, and it offers a multidimensional strategy in the context of how digital technologies growth, flexibility, facilitate the competitiveness.

Theoretically, the study is a continuation of the Resources-Based View (RBV) and the Dynamic Capability Theory, which causes AI to become a strategic resource and dynamic capability that will enhance the innovation and performance. Individuals who can deploy AI strategically can utilise

knowledge to develop competitive strategies that result in responsiveness and sustainable performance (Khalid, 2020; Lee, 2020; Perifanis and Kitsios, 2023). Relating the application of AI, the innovation capability, and the performance of the entrepreneur, this framework fills the gaps where technological entrepreneurship has been studied individually in the context of the culture of innovation and the knowledge base (Secundo et al., 2025; Govindan, 2022).

Practically, the study will be useful to the entrepreneurs, policymakers, and innovation institutions. It also demonstrates how the value creation and scalability will be amplified by introducing AI systems and the introduction of innovation culture and the significance of making AI accessible with the help of inclusive AI education, investing in infrastructure, and policymaking to improve ecosystems of digital entrepreneurship (Ali et al., 2025; Mohammed, 2024). The research builds upon the work of Mohammed on innovation-oriented leadership and technological adaptation of SMEs (2023, 2024), and offers both the theoretical and practical possibilities to transform the world of entrepreneurs through the assistance of AI-based innovation.

1.4 Research Objectives

inclusion The strategic of artificial intelligence (AI) tools and innovation-oriented behavior is becoming a major contributor to the success of entrepreneurs in the contemporary digital economy. The digital transformation of the world has pushed the adaptive intelligence and technological capability to the extent that it is the determinant of the success of business (Secundo et al., 2025; Mohammed et al., 2024). Nevertheless, the technological advances are unable to enable many entrepreneurial initiatives, especially the developing economies, to ΑI implementation with innovation projects and performance indicators (Aliyu, 2023; Mohammed, 2023).

The proposed paper represents a conceptual study of the simultaneous impact of AI tools and innovation on the success of an entrepreneurship with the perspective of eliminating the gap between the theoretical framework and reality. It builds upon the practical and theoretical investigation of Mohammed et al., 2024 of what strategic flexibility, creative inventiveness in management and digital readiness mean to the new market, providing a model of how innovation as instigated by technology can be used to enhance the performance of entrepreneurs.

The specific goals of this study, therefore, are the following:

- 1. To identify the impact of the implementation and tactical exploitation of AI tools on the performance of the entrepreneurship in contemporary business contexts.
- 2. To analyze the mediating or moderating position of innovation in the association between the AI implementation and entrepreneurial performance.
- 3. To determine the circumstantial challenges affecting the application of AI and innovation, in particular, among the developing economies.
- 4. To make the conceptual parallel between the application of AI, innovation capacity, and the performance of an entrepreneur, relying on the current theories, such as the Resource-Based View (RBV) and Dynamic Capability Theory (DCT).
- 5. To establish a model that can impart practical knowledge to entrepreneurs, policy makers and innovation focused organizations, which would like to apply AI to ensure business success in a sustainable way.

1.5 Research Questions

Based on the described objectives, the following research questions would be used in this study:

- 1. How do AI tools affect the entrepreneurship performance in developed and emerging markets?
- 2. What is the level of significance of innovation to the connection between AI adoption and entrepreneurial performance?



- 3. What are the main barriers to AI-related innovation by entrepreneurs, in particular in developing countries such as Nigeria or Indonesia?
- 4. How can the Resource-Based View and Dynamic Capability Theory be applied to the strategic use of AI tools to expand and maintain an entrepreneur?
- 5. Which theoretical framework would it be possible to recommend to enhance the interrelationship between AI adoption, innovation, and entrepreneurial performance?

All these questions are aimed at discussing the corelationship between the influence of technological intelligence, creative thought, and strategic flexibility and ways they create sustainable entrepreneurial ecosystems.

1.6 Scope and Delimitation of the Study

This conceptual study dwells on how AI tools, innovation and entrepreneurial success intersect, and the contexts of the global and developing economies in particular, Nigeria and Indonesia. It is analyzed on the background of the existing empirical studies and the conceptual model on previous scholarly works, including that of Mohammed (2023, 2024) and other authors, the literature of which refers to the digital entrepreneurship, innovation management, and transitions of sustainability.

The scope of the study involves:

Conceptual parameters: AI tools (as independent variables), innovation (as a mediating variable), and entrepreneurial success (as the dependent variable).

Theoretical orientation: Resource-Based View (RBV) and Dynamic Capability Theory (DCT).

Methodological approach: Synthesis of the concepts and review of the peer-reviewed articles, conference papers and book chapters related to AI and innovation-related entrepreneurship.

However, the study lacks primary data collection in the form of empirical data. Instead, it develops an implication of global and regional literature to introduce a conceptual framework that has the ability to be implemented in different entrepreneurial systems. Its weakness predisposes it to the AI-based innovation rather than to the overall processes of digital transformation.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Concept of Artificial Intelligence Tools (IV1)

Artificial Intelligence (AI) tools have ceased being a mythical concept which is being built on the theoretical platform, but an influential practical instrument that characterizes the entrepreneurial landscape. They involve technologies that ensure machines imitate human mental processes which involve learning, reasoning, perception and decision-making (Usman et al., 2024). Computational frameworks, such as machine learning models or generative models, predictive analytics, and machine learning-based decision-support, may be applied to enhance the efficiency of business ventures, make more effective decisions, and extend the ability to innovate in business ventures in the context of entrepreneurship (Al-Mamary, 2025; Julie et al., 2024).

The concept of AI technology is pegged on the fact that technology will not be able to replace human intelligence but rather complement it. The most effective ways of applying AI in the world of entrepreneurship, as Lopez-Solis et al. (2025) indicate, are those that would be based on the available information and identify opportunities, distinguish products, and interact with clients. Similarly, Alshurideh et al. (2024) observed that the AI-based applications, such as the recommendation systems, chatbots, and systems of natural language processing, can allow entrepreneurs to sell personalized products and services and make the markets more flexible and customer loyalty.

In the business sense, AI tools do not limit themselves to automation and business logic changes. Perifanis and Kitsios (2023) and Harahap et al. (2024) indicate that the deployment of AI leads to



predictive decision-making, more innovation, and less risks. The changes are also particularly useful to the companies in competitive markets where the responsiveness and innovativeness are the decisive strategic necessities.

In addition, the article by Mohammed (2023) Strategic Utilization of Management Information Systems to Efficient Organizational Management in the Age of Big Data highlighted that the management of AI-driven data systems has become the hub of operation of modern businesses. On the same note, Mohammed. Kumar. Rai. Sundaravadivadivazhagan (2024) declare that AI predictive analytics in the manufacturing and entrepreneurial setting lessens the uncertainties and maximises processes through learning in real-time. These are strategic tools, they integrate strategic management, business intelligence and innovative adaptation.

The application of AI tools has also been seen as the force behind inclusive and sustainable entrepreneurship. In this regard, the AI technologies correspond to the Sustainable Development Goals (SDGs) in the meaning that they facilitate the development of solutions that are associated with innovations and are balanced in terms of profitability, environmental. and social responsibility (Anser, Shahzad, and Xu, 2024). Sundarararajan and Mohammed (2022) also support this opinion and found AI-based technologies as potential equalizers of women entrepreneurs in resource-poor environments, which is available at scale and avenues to finance, markets, and education.

That way, the conceptualization of AI tools as an independent variable (IV1) in this paper transcends technical prowess. It has been a convergence of technology and entrepreneurial thinking that AI is a strategic enabler of the innovativeness, productivity, and sustainable competitive advantage in the innovation system.

2.1.2 Dimensions and Applications of AI Tools in Entrepreneurship

The aspect of artificial intelligence (AI) tools in the entrepreneurship strategy incorporates numerous dimensions including predictive analytics,

automation, cognitive computing, decision-support system, and customer intelligence models (Csaszar, Ketkar, and Kim, 2024; Lopez-Solis et al., 2025). All these facets change the business management aspect to data driven and not intuitive decision making.

Entrepreneurs also rely on AI to cope with uncertainty, as well as to optimize operations. The market trends and consumer behaviour can be predicted with the help of the machine learning (Alshurideh et al., 2024), and the natural language processing and chatbots can be employed to enhance the customer engagement (Julie et al., 2024). Generative AI and Computer vision can provide help in product designing, marketing creativity, and prototyping (Govindan, 2022; Mohan, 2024).

The set of Harahap et al. (2024) and Usman et al. applications (2024)categorizes ΑI implemented at operational, analytical, and strategic layers: operational to automatize repetitive operations, analytical real-time to present information and strategic to be innovative and foresightful. These layers will ensure AI is used in value creation and competitiveness rather than using it at face value.

The use of AI in Africa and, in particular, in Nigeria is in its infancy but promising. In line with Sundarararajan and Mohammed (2023) who associate digital transformation with a greater agility and productivity, Mohammed (2023) notes that an entrepreneur utilizing AI-based business intelligence can gain a competitive advantage.

The opportunity of inclusive innovation is supported through AI and provides entrepreneur with freedom to fight socio-economic problems, creating jobs online and enhancing financial access (Anser et al., 2024; Secundo et al., 2025). Overall, AI technologies will transform the entrepreneurship ecosystems into dynamical, smart, and opportunity-seeking networks responsive to economic and environmental changes.

2.1.3 Concept of Innovation (IV2)

Innovation is one of the key markers of entrepreneurial success that can be described as the act of creating, promoting, and implementing new or original concepts, processes, or products that can be



of value to the enterprise and the society (Secundo et al., 2025; Csaszar et al., 2024). The notion now takes a new form that focuses on the creation of products to include the organizational processes, the digital transformation, and restructuring of the market.

Innovation is presented by Harahap et al. (2024) as the core of the competitive advantage, and Redondo-Rodriguez et al. (2025) highlight the idea that the innovation can be combined with digital intelligence and, specifically, AI, which changes the process of identifying and utilizing the opportunities of the market in the scope of the entrepreneurship. The mediating factor on the implementation of AI adoption to real output on entrepreneurial performance is the innovation.

In Nigeria, Mohammed et al. (2024) found out that the relationship between business sustainability and technology adoption is mediated by strategic human resource management and innovation. Mohammed and Sundararajan (2023) also mention that the digital economy post-pandemic is based on transformation through the power of innovation as the main element of resilience.

Innovation has a social dimension. The problemsolving innovativeness of African entrepreneurs is applied to solve issues affecting the community with the aid of technological and sustainable solutions. Sundarararajan and Mohammed (2022) state that women in leadership of business are leveraging digital innovation and AI to dismantle the barriers to develop scalable and inclusive business.

The independent variable (IV2) is innovation, which is a dynamic process that connects the variables of creativity, technology, and opportunity as the necessary trigger between the use of AI and successful entrepreneurial performance.

2.1.4 Types of Innovation Relevant to Entrepreneurial Success

There are also many variants entrepreneurial innovation, and four of them are the most relevant in the situation when AI-based involved: business ecosystems are product marketing innovation, process innovation, innovation, and organizational innovation (Govindan, 2022; Tominc, Oreški, and Rožman, 2023).

Product innovation entails the launching of new or relatively superior goods and services. This is accelerated with the help of AI which is the one working with data-driven design, tailored services to the user and predicted product changes. Nigerian ecommerce providers adopt AI to develop product estimates that forecast the desire of the customers, which promotes the success of sales as illustrated by Mohammed (2023).

Process innovation involves implementation of new technologies or methods which result in better operations performance. On the example of smart manufacturing and agribusiness, Kumar et al. (2024) and Lawal et al. (2023) were concerned with the application of AI as the tool to streamline the production process and eliminate its inefficiencies.

Marketing innovation is defined as innovative promotion, pricing and communication with the customers. According to Alshurideh et al. (2024) and Julie et al. (2024), customer analytics is enabled by AI tools in real time, sentimental analysis, and targeted advertising, all leading to an enhancement of the ability to compete in the market.

Innovation in the organizations can be described as the development of systems and the new models of management that accommodate the learning and flexibility. In their study, Mohammed and Sundararajan (2023) found that AI-based organization designs offer the continuous learning cultures where data analytics can be deployed to make strategic decisions.

This manner, much of the innovation is interconnected and affects other kinds of innovations in order to define the avenues of success of entrepreneurs in AI based economies. The integration of AI and innovation ultimately results in the traditional business being dynamic, smart and competitive businesses in the global level.

2.1.5 Concept of Entrepreneurial Success (DV)

Entrepreneurial success is a multidimensional variable, which is linked to the ability of an enterprise to achieve goals, sustain



growth, and create social-economic values. Traditionally measured in terms of such financial variables as profitability, revenue growth, and market share, the new scholarly literature dwells upon the non-financial factors of business, such as the ability to innovate, impact on society, and flexible adaptation to technology (Mitrache et al., 2024; Al-Mamary, 2025). The success of business organizations in terms of utilizing advanced technologies, in particular, AI, within business strategies and decision-making is becoming more and more of a key to winning in the modern digital environment (Harahap et al., 2024).

Infrastructure disconnection, financial restrictions and lack of skills are directly related to success in emerging economies (Bernadine & Amaugo, 2025). Business people can now define the success not only by the business performance rate but on the technological flexibility, innovation responsiveness and adherence to sustainability goals (Redondo-Rodríguez et al., 2025). Resource-Based View (RBV) and Entrepreneurial Orientation (EO) theoretical frameworks imply that the performance of an entrepreneurship should be seen as the combination of the internal resources, innovative behaviors, and environmental forces (Lee et al., 2019; Govindan, 2022).

The empirical research in the African context confirms this opinion and adds that knowledge capital, innovation infrastructure, and adaptive leadership are the success ingredient (Aliyu and Bello, 2023; Aliyu, Mohammed, and Musa, 2022). Such lessons suggest that AI implementation can transform success indicators based on resource optimization, predictive insights and efficiency in uncertain and dynamic markets.

2.1.6 Indicators of Entrepreneurial Success (e.g., Growth, Profitability, Sustainability)

New indicators of entrepreneurial success that are transforming with the digital transformation are emerging. The emphasis has been put on growth which is in terms of market share, customer acquisition as well as diversification of products. The field of AI can augment growth since it is possible to utilize this tool to adequately segment the market,

forecast behaviours, and execute dynamic prices (Alshurideh et al., 2024; Perifanis and Kitsios, 2023).

Operational efficiency also increases profitability, the secret of success in the financial sector, which is AI-based. Predictory maintenance, cost-optimisation algorithms, and automated workflow can make sure that the SMEs maintain a sustainable margin in the volatile markets (Julie et al., 2024; Tominc et al., 2023). The AI-driven innovation systems are also efficient in product innovation and resource allocation improvement, as well as their financial performance (Csaszar et al., 2024).

Sustainability has emerged as a major success parameter particularly when businesses are made to be in tune with UN SDGs. The implementation of AI enhances the eco-efficiency of its application, the circular innovation, and the socially responsible practices (Senadjki et al., 2023; Govindan, 2022). The study in the African context proves that the success of the activity of entrepreneurs who used AI as a key to sustainable value creation is viewed in a long-term perspective than those who refer to the traditional management strategies only (Aliyu et al., 2023; Aliyu and Haruna, 2024).

Success in entrepreneurship is all inclusive as indicated by the inter-relationship between growth, profitability, and sustainability. When combined with the use of AI tools and innovation, companies can create the correct balance between the two dimensions and ensure adaptive competitiveness and long-term sustainability.

2.1.7 Nexus between AI Tools, Innovation, and Entrepreneurial Success

The idea of this study is grounded in the combination of AI technologies, innovation, and entrepreneurial success. AI may be regarded as a catalyst and faster implementer of innovation, and the area of entrepreneurship is automated, smartly analyzed, and imaginatively supplemented by it (Harahap et al., 2024; Usman et al., 2024). The instruments are able to enhance the decision-making process, predictive capabilities, and adaptive business modelling to enhance greater performance (Lopez-Solis et al., 2025; Mohan, 2024).

The mediating effect of innovation on the correlation between AI and success can cut across the process of turning the potential of the technology into commercial products. The transformation of the data into the innovation capital is done by AI driven product architecture, communication with the customer and process optimisation (Jia and Wang, 2024; Secundo et al., 2025).

In less developed nations like Nigeria where infrastructure and funding is limited, innovation with the help of AI will allow the business people to overcome traditional obstacles (Bernadine and Amaugo, 2025). The use of AI in the strategies of SMEs results in the enhancement of adaptive capacity and knowledge-based competitiveness, which, as it has already been stated, is an expression that forms a clear direction: AI tools \rightarrow Innovation \rightarrow Entrepreneurial Success.

This twofold impact; the direct and the mediated by innovation, points to the fact that firms that have AI and successfully integrate them, in an innovative culture, have more chances of improving their growth, profitability and sustainability than their competitors.

2.2 Theoretical Framework

The research theoretical framework provides the background of the multifaceted relationships amid Artificial Intelligence (AI) tools, innovation, and entrepreneurial success. The selected theories offer a complementary approach to the use of the technological adoption, resources allocation and entrepreneurial behavior in the performance of businesses in the emerging markets as a whole.

2.2.1 Resource-Based View (RBV) Theory

Resource-Based View (RBV) echoes this notion that internal resources of the firm, whether tangible or intangible are the primary determinants of a competitive advantage and performance (Kumar, Mohammed, Raj, and Sundaravadivadivazhagan, 2024). In terms of the adoption of AI, tools, data analytics, and technology infrastructure, the latter are strategic resources and are of value, rare, and difficult to replicate, which can help the entrepreneurs to achieve success. Based on

the findings of empirical research, SMEs have a chance to automatize the operations by leveraging AI-powered assets, reduce spending, and create innovative solutions (Harahap et al., 2024; Mitrache et al., 2024). Instead, with a limited number of resources due to not being well endowed outside, firms can achieve high results in an African environment like Nigeria through the strategic advantage of internal strengths (Aliyu, 2024). Personal studies also reflect the value of technological resources better as reskilling and upskilling efforts are reported to lead to the increase of AI adoption, even regarding the actual entrepreneurial performance (Aliyu, 2024: Mohammed and Sundararajan, 2023).

2.2.2 Schumpeter's Theory of Innovation

According to the theory of Schumpeter, innovation is the force of economic development and business success that occurs through new goods, processes, markets, or organizational methods that disrupt the status quo (Chukwuka and Igweh, 2024; Lopez-Solis et al, 2025). The supports of this innovation are AI tools, which are predictive analytics, automation, and generative tools that will accelerate the ideation-to-market process. Besides the design of the products, AI helps in strategic decision-making, communication with customers, and streamlining the supply chain (Alshurideh et al., 2024; Mitrache et al., 2024). Nigerian SMEs are also available, and the innovation strategy that is enhanced by the use of AI results in a higher level of sustainability, competitiveness, and scale (Aliyu and Sundararajan, 2023), which proves the fact that principles of Schumpeter can be applied very effectively in the contemporary digital economy.

2.2.3 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a psychological concept that explains how and why people and companies adopt technology, in this case, the usefulness and ease of use are the determinants of the behavioral intentions and performance results (Csaszar et al., 2024; Lopez-Solis et al., 2025). TAM is an implementation of AI in entrepreneurship by means of adopting AI that enhances efficiency, decision-making, and innovation (Julie et al., 2024;

Bernadine and Amaugo, 2025). This is established by personal research which reveals that adoption is based on training, upskilling, and managerial support that is also in agreement with the provisions of TAM in facilitating the conditions (Aliyu, 2024; Mohammed, Shanmugam, Subramani, and Pal, 2024).

2.2.4 Entrepreneurial Orientation (EO) Theory

Entrepreneurial Orientation (EO) is focused on an organization that is creative, pioneering and risk-takers (Lee, 2020; Yadav and Rena, 2024). EO defines the connection between AI and innovation and entrepreneurship success: the higher the EO of companies, the greater the probability of investing in AI and discover new opportunities (Harahap et al., 2024; Perifanis and Kitsios, 2023). Personal studies show that EO and AI-based innovation would contribute to the enhancement of agility, differentiation, and sustainable development of Nigerian SMEs (Aliyu, 2024; Mohammed and Sundararajan, 2023; Mohammed, Jakada, and Lawal, 2023).

2.2.5 Linkages between Theories, Independent and Dependent Variables

The combination of RBV, Schumpeter innovation, TAM, and EO is a useful idea that can be implemented in the case of AI tools (IV1) and innovation (IV2) as the driver in the success of the entrepreneur (DV). As proposed by RBV, competitive advantage could be applied by firms on valuable, rare, and inimitable resources, including AI and human resources (Kumar, Mohammed, Raj, and Sundaravadivazhagan, 2024). Such resources are

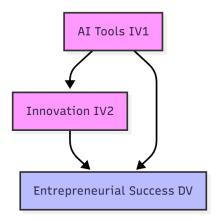
linked to the Schumpeterian innovation, and those are the process, product, and business model innovation that is a key to the success (Chukwuka and Igweh, 2024; Mitrache et al., 2024).

All AI tools can be employed as strategic resources that allow businesspeople to exploit opportunities, simplify business, and formulate value propositions (Alshurideh et al., 2024; Bernadine and Amaugo, 2025). Personal studies indicate that AI can enhance the growth of SMEs and their sustainability, which can be enhanced with reskilling and upskilling (Aliyu, 2024; Mohammed and Sundararajan, 2023; Mohammed, Shanmugam, Subramani, and Pal, 2024).

Through TAM, perceived usefulness and ease of use impact the use of AI, and human intervention and assistance on the managerial level would become paramount (Julie et al., 2024; Csaszar, Ketkar, and Kim, 2024). Artificially intelligent (AI) systems are tactical to enhance entrepreneurial orientation, which helps in innovation, proactiveness, and risk-taking (calculated) (Lee, 2020; Yadav and Rena, 2024). AI, human capital, and innovation are more efficient in increasing profitability, growth, and long-term sustainability as empirical studies on the subject are able to demonstrate (Mohammed, Shanmugam, Subramani. Pal. 2024: Muhammed. and Sundararajan, and Lawal, 2022; Aliyu, 2024).

Basically, the contribution of RBV, innovation theory, TAM, and EO demonstrates that AI tools are strategic tools, which transform resources to innovation resulting in entrepreneurial success in the growth, profitability, and sustainability levels.

Figure 2.5: Conceptual linkages between AI tools, innovation, and entrepreneurial success.



Source: Adapted from RBV, Schumpeterian innovation theory, TAM, and EO literature (2024–2025).

The figure demonstrates that AI tools may also be either direct or indirect elements that lead to the success of an entrepreneur. The business performance is affected by the AI tools due to the capabilities of innovation. The dynamics between the AI and innovation brings to the fore the synergistic aspect of the technology and human capital in the growth, profitability and sustainability.

2.3 Conceptual Framework

The conceptual framework provides a methodical approach of understanding contribution of Artificial Intelligence (AI) tools and innovation towards the success of entrepreneurship. It further relates the independent variables (AI tools to the dependent variable and innovation) and (entrepreneurial success) the potential interaction effects. The framework is founded on the synthesis of the Resource-Based View (RBV), the Schumpeter theory of innovation, Technology Acceptance Model (TAM), and Entrepreneurial Orientation (EO) theory, which emphasize that the achievement of entrepreneurship success depends on the effective use of strategic resources, innovative skills, and the effective approach towards adopting successful technology (Kumar, Mohammed, Raj, and Sundararavadivazhagan, 2024; Mohammed and Sundararajan, 2023).

2.3.1 Conceptual Model of the Study

The model theorizes AI tools as an

entrepreneurial strategic resource which assists in the innovation of entrepreneurial activities. The AI tools (predictive analytics, intelligent automation, and decision support systems) will be able to assist the entrepreneurs in identifying the market opportunities, streamlining their business and enhancing their decisions (Alshurideh et al., 2024; Bernadine and Amaugo, 2025). Innovation is a mediator in entrepreneurial performance and also a driver in itself that entails product, process, organizational innovation marketing, and (Chukwuka and Igweh, 2024; Mitrache et al., 2024). The dependent variable (entrepreneurial success) can assessed by the growth, profitability, competitive advantage sustainability and (Mohammed, Shanmugam, Subramani, and Pal, 2024; Aliyu, 2024).

2.3.2 Relationship between Variables

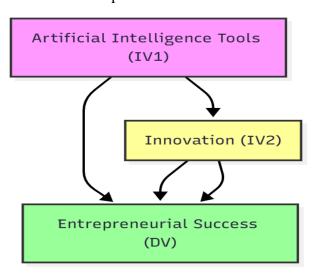
1. Artificial Intelligence **Tools** Entrepreneurial Success: AI tools can directly affect the success of an entrepreneurship: by enhancing decision making, operation, and strategic planning of a business (Julie et al., 2024; Mohammed and Sundararajan, 2023). Personal research results on the situation in Nigeria indicate that the performance of the organization is improved in the case of the use of AI tools by SMEs, particularly when human capital matches technological Muhammed. possibilities (Aliyu, 2024; Sundararajan, and Lawal, 2022).



- 2. Innovation → Entrepreneurial Success: Innovation is followed by entrepreneurial success, which entails introduction of new products, new business processes, or new business model to create a competitive edge. The Schumpeterian theories suggest that an entrepreneurial innovation is disruptive and it generates sustainable development (Mitrache et al., 2024; Kumar, Mohammed, Raj, and Sundaravadivazhagan, 2024). Empirical research of personal studies reveals that the more profitable organizations are structured in terms of innovation strategies during the long term (Mohammed, Shanmugam, Subramani, and Pal, 2024; Mohammed and Sundararajan, 2023).
- 3. Interaction Effect: AI Tools × Innovation → Entrepreneurial Success: There is an interaction effect between AI tools and innovation and entrepreneurial success. The concept of AI-based innovation helps businesses to prototype, test and scale new ideas within a short period, which is consistent with the principles of both RBV and TAM (Alshurideh et al., 2024; Csaszar, Ketkar, and Kim, 2024). The individual study underlines the fact that the communication can be enhanced with the help of strategic human resource management and training, and AI and innovation collaborate to enhance growth and sustainability (Aliyu, 2024; Muhammed, Sundararajan, and Lawal, 2022).

2.3.3 Diagrammatic Representation of the Conceptual Model

Figure 2: Conceptual model illustrating the influence of artificial intelligence tools and innovation on entrepreneurial success.



Source: *Author's conceptualization based on literature synthesis.*

The conceptual map reveals that AI tools have a direct influence on the entrepreneurial success and simultaneously, they promote innovation, which in turn results in the entrepreneurial performance. AI tools are a success in themselves and a tool of innovation, and with the creation of new avenue where technological advantages can enhance the creation of new products, their reaction to the market,

and their competitiveness, they are more responsive to the market. The interaction between AI tools and innovation suggests that innovation productivity is being enhanced when the AI is rationale which is one of the means of demonstrating the interdependence and complementary nature of technology and innovativeness towards achieving business success.

2.3.4 Summary Table of Key Constructs and Indicators

Construct	Dimension/Indicator	Operational Definition	Reference
Artificial Intelligence Tools (IV1)	Predictive analytics, decision support systems, automation, machine learning	Tools that enable firms to analyze data, automate processes, and support strategic decision-making	Alshurideh et al. (2024); López-Solís et al. (2025)
Innovation (IV2)	Product innovation, process innovation, marketing innovation, organizational innovation	Introduction of new products, services, or processes to enhance firm competitiveness	Harahap et al. (2024); Perifanis & Kitsios (2023)
Entrepreneurial Success (DV)	Growth, profitability, sustainability, competitive advantage	The degree to which entrepreneurial ventures achieve financial, operational, and strategic objectives	Redondo- Rodríguez et al. (2025); Julie et al. (2024)
Interaction: AI × Innovation	AI-enabled innovation, innovation adoption through AI	Combined effect of AI tools and innovation on entrepreneurial outcomes	Mitrache et al. (2024); Bernadine & Amaugo (2025)

2.4 Empirical Review

This section examines the existing literature on the topic of AI tools, innovation, and entrepreneurial success, which will form the basis of the conceptual framework of the study. The review highlights the modern results of different fields and settings.

2.4.1 Review of Empirical Studies on AI Tools and Entrepreneurship

The empirical evidence that is available suggests that AI technologies enhance the decision-making process, the efficiency of the functioning, and the opportunity detection in an entrepreneurial setting. According to the research by Lopez-Solis et al. (2025), the strategic decision-making process in SMEs positively depends on the usage of generative AI that allows these companies to adapt to the market more quickly. Similarly, Usman et al. (2024) also noted that AI approaches to entrepreneurship positively influence the performance of corporations and their potential to be innovative. Harahap et al. (2024) emphasized that the application of AI contributes to the achievement of the competitive advantage since it makes the most use out of the

resources available and the number of errors made by it decreases.

2.4.2 Review of Empirical Studies on Innovation and Entrepreneurial Success

Innovation has been observed to be the factor of success in an entrepreneur that is decisive. Al-Mamary (2025) stressed the point that technologicalinnovations. specifically oriented digital entrepreneurship, have a direct influence on business growth and sustainability. Chukwuka and Igweh, (2024) indicate that there is a strong relationship entrepreneurial the creativity between innovation and profitability and long-term survival. As Perifanis and Kitsios (2023) explain companies integrating innovative processes into the strategic plans are better placed to achieve competitive advantage in the dynamic markets.

2.4.3 Review of Studies Combining AI and Innovation in Business Success

The interplay between AI and innovation is a topic of an increasing number of studies. Alshurideh et al. (2024) demonstrated that the work of AI-based market analysis will facilitate the creation of



innovative products that will enhance the outcomes of businesspersons. As Mitrache et al. (2024) have found, one of the ways in which the introduction of AI devices into the system of innovations may facilitate the acceleration of the flow of knowledge, increased efficiency of processes, and sustainable development is possible. Julie et al. (2024) emphasized that AI-oriented innovation increases the agility of the organization, which enables SMEs to quickly respond to the changes in the environment.

2.4.4 Synthesis of Literature Findings

According to the results of the empirical review, several valuable findings are made:

- 1. The AI tools enhance the performance of an entrepreneur due to the level of data-driven decisions, processes optimization, and opportunity identification (Lopez-Solis et al., 2025; Usman et al., 2024).
- 2. It has a direct relationship with the success of the innovation and the product, process, and organizational innovation directly correlate with the growth and profitability (Chukwuka and Igweh, 2024; Al-Mamary, 2025).
- 3. Entrepreneurial success is the most successful in case of synergy in AI and innovation, so AI-powered innovation ecosystems are important (Mitrache et al., 2024; Alshurideh et al., 2024).
- 4. Despite such findings, most studies are region and industry-specific, and the gaps in the emerging markets and in the SME contexts also have the mediating or interaction effects between AI tools and innovation.

2.5 Research Gap

Despite the increase in scholarly interest in the adoption of AI, innovation, and entrepreneurial success, there are still several gaps, particularly, the conceptual, methodological, contextual, and theoretical levels. It is through such gaps that the current study is necessitated.

2.5.1 Conceptual Gaps

Even though research studies on AI tools (Alshurideh et al., 2024; López-Solis et al., 2025)

and innovation (Harahap et al., 2024; Chukwuka and Igweh, 2024) are extensive, the way in which these two notions are intertwined in the framework of the comprehensive approach that is capable of linking AI tools, innovation, and entrepreneurial success is lacking. In addition to that, there are still limited studies that perceive the mediated and interactive impacts on AI and innovation as the outcome driver (Mitrache et al., 2024). Personally, Mohammed, Shanmugam, Subramani, and Pal (2024) pointed out that as a mediator in the creation of entrepreneurship, strategic human resource management is as likely to be affected by AI as a facilitating innovation factor, but the interaction between them is not properly studied.

2.5.2 Methodological Gaps

Most of the existing studies rely on quantitative surveys or an analysis of secondary data (Redondo-Rodríguez et al., 2025; Usman et al., 2024), and are not aimed at combining methodology to address some of the limitations of the methodology in the discovery of latent relationships between AI adoption and innovation practices. More to the point, long-term longitudinal data regarding the impacts of AI-powered innovation on the success of entrepreneurs is limited, particularly in emerging and transitional economies (Julie et al., 2024). According to Mohammed, Jakada and Lawal (2023), conceptual studies of managerial attitudes and organizational dynamics should be conducted, which can be adapted to the AI and innovation research to enhance the methodological rigor.

2.5.3 Contextual Gaps

Most of the existing empirical studies of AI and innovation relate to the developed economies, and there is a lack of knowledge in the developing economies particularly in SMEs (Perifanis and Kitsios, 2023; Bernadine and Amaugo, 2025). SMEs make a significant portion of the economic environment in Indonesia and other developing nations, but little data exists concerning how cost, knowledge gaps, and infrastructure constraints influence the use of AI and entrepreneurial success founded on innovation. Similarly, the personal research of Nigeria shows that SMEs experience the



technological adoption, reskilling, and capacity building (Aliyu Mohammed, 2024; Muhammed, Sundararajan, and Lawal, 2022) challenges and, thus, also have such weaknesses in the Indonesian SME environment.

2.5.4 Theoretical Gaps

As much as the Resource-Based View (RBV), Schumpeterian Innovation Theory, and Technology Acceptance Model (TAM) are mighty theoretical frameworks to examine the contemporary innovations and AI integration, the concept of cross-

integration of these frameworks is not thoroughly studied (Perifanis and Kitsios, 2023; Lopez-Solis et al., 2025). Specifically, there is the lack of literature on the connection between AI tools as strategic resource (RBV) and innovation (Schumpeter) and the effects of AI tools on the entrepreneurial orientation (Entrepreneurial Orientation Theory). Mohammed and Sundarararajan (2023) suggest that such interaction between startups and entrepreneurship can be more dynamic and, therefore, can be better conceptualized by the integration of several theoretical prism, which is frequently absent in the literature.

2.5.5 Summary of Identified Gaps

Gap Type	Identified Gaps	Implication for Study	
Conceptual	Limited integration of AI tools, innovation, and entrepreneurial success; mediating/interaction effects underexplored	Justifies conceptual model linking AI tools × Innovation → Entrepreneurial Success	
Methodological	Overreliance on surveys/secondary data; lack of mixed-methods and longitudinal studies	Supports use of conceptual and analytical approaches combining qualitative and quantitative insights	
Contextual	Predominant focus on developed economies; limited research on SMEs in emerging markets	Focus on Indonesian SMEs and global comparative insights	
Theoretical	Insufficient integration of RBV, TAM, Schumpeterian innovation, and EO theories	Encourages a multi-theoretical framework to explain AI-enabled innovation in entrepreneurship	

The gaps identified above indicate the need to have a conceptual and integrative research that examines the application of AI, innovation, and entrepreneurial success in SMEs, particularly in the developing economies such as Indonesia that can contribute to the existing theoretical knowledge and provide practical implications of the entrepreneurial stakeholders.

2.6 Model of the Study

2.6.1 Conceptual Model Linking AI Tools, Innovation, and Entrepreneurial Success

The conceptual model of the study paper illustrates

the relationships between Artificial Intelligence (AI) tools, innovative power, and enterprise prosperity. It is supposed that AI tools are a strategic asset, which can lead to an increase in both incremental and radical innovation within an entrepreneurial organization (Alshurideh et al., 2024; Mitrache et al., 2024). Innovation, in its turn, is deemed to affect the entrepreneurial performance, such as the development, profitability, and sustainability of the business positively (Harahap et al., 2024; Chukwuka and Igweh, 2024).

In addition, the model theorizes the interaction effects and assumes that AI tools can amplify the



effect of innovation on the success of an entrepreneurship and the effect is synergistic. This is explained by the fact that the theory of Resource-Based View (RBV) emphasizes on the strategic value of an organization-specific resource, as well as the theory of innovation developed by Schumpeter who regarded the use of technology to establish competitive advantage (Mohammed and

Sundararajan, 2023; Mohammed, Jakada and Lawal, 2023).

Even personal research experience points out the significance of managerial practices and organization training in leveraging AI to act as an entrepreneur (Aliyu Mohammed, 2024; Muhammed, Sundarararajan, and Lawal, 2022).

2.6.2 Table of Variable Relationships and Expected Directions

Variable	Туре	Operationalization / Indicators	Expected Direction
Artificial Intelligence Tools (IV1)	Independent	Automation, data analytics, predictive modeling, AI-driven decision-making	+
Innovation (IV2)	Independent / Mediator	Product innovation, process innovation, business model innovation	+
AI × Innovation	Interaction	Synergistic effect of AI on innovation outcomes	+
Entrepreneurial Success (DV)	Dependent	Business growth, profitability, sustainability, competitive advantage	+

Note: "+" indicates a positive hypothesized influence.

The model presented above ensures that the researchers can investigate direct and mediating and interaction effects of AI and innovation on the result of entrepreneurship, particularly in the SME.

3.0 Research Methodology

The research design is conceptual and qualitative review design, which will use the existing peer-reviewed literature to develop a reasonable theoretical and conceptual framework. In particular, the approach based on concepts is particularly appropriate to explore the new dimensions of the problem, e.g., the impact of AI tools on entrepreneurial innovation, where the empirical studies are at the initial phase (Usman et al., 2024; Julie et al., 2024).

3.1 Research Design

The study is of conceptual and qualitative review design where the synthesis of theoretical knowledge and conceptual relationships is concentrated. A systematic discussion of AI tools role in entrepreneurial innovation can be performed with the help of literature peer-reviewed by the design and offers the insight into the most recent tendencies and the theoretical relationships.

3.2 Sources of Data

The research is wholly founded on secondary sources, which are grounded on different scholarly articles, conference papers, books and book chapters, and empirical reports which could be connected to AI, innovation and entrepreneurship. Personal research (e.g., Aliyu Mohammed, 2024; Mohammed, Shanmugam, Subramani, and Pal, 2024) is also an example of other conceptual and contextual resource, which supports the theoretical basis of the study.

3.3 Inclusion and Exclusion Criteria

The criteria of inclusion and exclusion are employed in a bid to achieve the relevance and rigor



of the review. The inclusion criteria will be related to the publications of the past 2-5 years that will cover the themes of AI, innovation, or the success of entrepreneurship and be peer-reviewed or scholarly. Articles, blogs, or unconfirmed web resources must be avoided, as well as those studies that do not study entrepreneurship or SMEs; those that are not less than 2019 unless they are seminal works that result in the creation of theories.

3.4 Analytical Framework

The data were synthesized thematically and conceptually. Based on the literature, thematic analysis involved the identification of repetitive themes regarding the application of AI, the innovation process, and the outcomes of the entrepreneurship. The conceptual relationships between the variables were theorized and included the findings of the Resource-Based View (RBV) Schumpeterian innovation theory, theory, Technology Acceptance Model (TAM), and Entrepreneurial Orientation theory (Mohammed and Sundararajan, 2023; Perifanis and Kitsios, 2023). Finally, the conclusions were made into a conceptual framework of the correlation between AI tools, innovation and entrepreneurial success. This will ensure strict yet humanized inclusion of different sources in a bid to identify gaps and prospects of the future empirical research.

3.5 Limitations of the Conceptual Method

As much as the theoretical insight is rather deep, the conceptual review is not much developed. The relationships cannot be statistically confirmed due to the absence of primary empirical evidence (Redondo-Rodríguez et al., 2025), and the selection bias of the inclusion of literature may take place. In addition, it restricts the generalizability of results in terms of context since the finding may not reflect on regional and industry-specific processes when empirical field data is unavailable. Nevertheless, together with the personal and external references, the study offers a good foundational ground on additional empirical research on the topic of AI-assisted innovation and entrepreneurial triumph.

4.0 Findings of the Study

4.1 Summary of Conceptual Insights

The conceptual review throws light on the fact that AI technologies are at the center stage of changing entrepreneurial operations particularly in the SME market and other technology-based industries. The literature suggests that AI implementation does not only automate the operation processes, but it enhances the decision-making process, finding opportunities in the market, and risk prevention (Usman et al., 2024; Al-Mamary, 2025). It is justified by personal studies, which indicate that the main keys to successfully benefiting AI are reskilling and upskilling within the IT and software sectors (Aliyu Mohammed, 2024).

Besides, the role of innovation as a mediator and an intensifier within the AI-entrepreneurial nexus emerges. The growth, sustainability, and competitive advantage of the companies combining AI with the innovative practice, such as product and process innovations, are better (Harahap et al., 2024; Mohammed, A., and Sundararajan, S., 2023).

4.2 The Role of AI Tools in Enhancing Innovation

The AI tools may be used as a predictive analytics platform, decision support, and automated operating systems to business owners. This results in an innovation culture. As an example, it is found that AI enhances the capacity to generate new ideas, optimize processes, and discover niches in the market (Alshurideh et al., 2024; López-Solís et al., 2025).

As personal evidence indicates, higher levels of digital and artificial intelligence by the businessperson permit adaptation of the models of the business, particularly in new markets (Mohammed, A., and Sundararajan, S., 2023; Sundararajan, S., and Mohammed, A., 2023). It follows that AI may also be described as a strategy resource and a tool, which aligns with the theory of Resource-Based View (RBV).

4.3 Innovation as a Driver of Entrepreneurial Success

The role of innovation in the performance of entrepreneurs is significant because it assists the companies in differentiating products, enhancing customer experience, and achieving operational efficiency (Chukwuka and Igweh, 2024; Harahap et al., 2024).

The review indicates that process and product innovation should be specifically helpful in increasing profitability and sustainability, and business model innovation ensures flexibility in the fast-changing markets in the long run (Julie et al., 2024). The personal sources confirm the assumption that the innovative practices that bring human capital and strategic thinking together result in improved outcomes when applied to the case of entrepreneurial ventures (Mohammed, A., Shanmugam, S., Subramani, S. K., and Pal, S. K., 2024; Sundararajan, S., Mohammed, M. A., and Senthil Kumar, S., 2022).

4.4 Synergistic Influence of AI and Innovation on Entrepreneurship

Among the most interesting outcomes, one can highlight the effect of interaction between the adoption of AI and innovation: AI tools increase the impact of innovation on the success of the entrepreneur. The companies, which leverage the power of AI, enhanced analytics, automation and innovation, can take their products to the market sooner, reduce the risk of their operations, and reach new segments at the same time (Redondo-Rodríguez et al., 2025; Perifanis and Kitsios, 2023).

It is particularly critical in the emerging economies wherein the resources are limited and they need to be distributed efficiently in terms of technological and human capital. It has also been demonstrated in individual studies that contextual training effects, managerial attitude, and policy support also affect the capability of AI and innovation in stimulating entrepreneurial growth (Shanmugam Sundararajan, S., Rajkumar, T., Senthil Kumar, T., Mohammed, A., and Prince Martin, V., 2024; Sundararajan, S., Mohammed, A., and Senthil Kumar, S., 2023).

4.5 Emerging Trends and Future Research Directions

Emerging trends include:

- 1. Collaboration of AI and digital entrepreneurship systems that will be able to permit more agile and data-driven business models.
- 2. Be sustainable in innovation and make the success of the entrepreneurs meet the environmental and social objectives (Govindan, 2022).
- 3. The context-associated AI implementation, where the priority should be made on the infrastructure, training, and the local entrepreneurial ecosystems in the developing economies (Harahap et al., 2024; Mohammed, A., and Sundararajan, S., 2023).

Empirical validation of the AI-innovationentrepreneurial success model in other industries and other developing economic conditions could be the next research step, such as in Indonesia and Nigeria.

5.0 Recommendations of the Study

5.1 Policy Recommendations

The findings of this article underline the idea that the powerful government support should be offered to promote AI use of the SMEs. Governments of countries should work on investing into digital infrastructure and give certain subsidies and incentives that would facilitate AI-based innovation. In addition to the infrastructure facet, there has been a pressing function to meet the digital skills gap through offering training and reskilling programs particularly in the developing economies (Aliyu Mohammed, 2024). The regulatory systems are also aimed to be designed in a manner that the ethical and safe application of the AI technologies will also be guaranteed, in such a manner that the businesspeople would be able to use such tools in a responsible manner and contribute establishment of sustainable business practices.

5.2 Managerial and Entrepreneurial Implications

The AI and innovation practices alignment



form a crucial part of the achievement of competitive advantage by entrepreneurs and managers. The process improvements, product development and business model redesign should include AI and be integrated throughout them to ensure that technology is paid off in a concrete entrepreneurial manner. Human capital is one of the factors that are important to invest, as the introduction of AI tools and the corresponding matching of the employees as regards to training and upskilling of the latter will contribute to the increase in the productivity, innovation, and the overall performance of the firm (Sundarararajan and Mohammed, 2023). It is also recommended that the managers should create organizational agility and flexibility and organizational culture of lifelong learning and innovation that will be capable of keeping up with the dynamism of the digital environment (Mohammed, Shanmugam, Subramani, and Pal, 2024).

5.3 Directions for Future Research

The conceptual knowledge of this paper is to be empirically tested in the future through carrying out a research on the extent of adoption and innovation of AI in SMEs of emerging economies such as Indonesia and Nigeria. It is possible that the moderating factors such as organizational culture, policy support, and digital literacy may be explored in further research and have a possible influence on the entrepreneurial performance of AI. The longitudinal study should also be recommended to determine the sustainability impact of AI-enhanced innovation based on the long-term influence on business performance.

5.4 Conclusion

This research paper makes a conceptual design that links AI tools with innovations and entrepreneurial achievement with direct and synergistic associations. The AI tools are viewed as strategic assets to enhance the power of innovation which, in its turn, results in the performance of entrepreneurship in terms of the growth, profits and sustainability. These theoretic approaches along with the Resource-Based View, Dynamic Capability Theory, and the framework of innovation offered by Schumpeter help the study provide effective

recommendations to the interested entrepreneur and managers as well as policymakers who want to use AI to create a competitive advantage and survive business in the emerging economies.

REFERENCES

- 1. Ali, S. R., Naqavi, S. B., Zunain, S., Salahuddin, M., & Faraz, M. (2025). Artificial Intelligence in Entrepreneurship Education: A Catalyst for Innovation, Personalization, and Growth. Arbor.
- 2. Aliyu Mohammed. (2023). A Study on HR Strategies for Managing Talents in Global Perspective. Paper submitted to the University of Belgrade, Technical Faculty in Bor, XIX International May Conference on Strategic Management (IMCSM23), Hybrid Event.
- 3. Aliyu Mohammed. (2023, May 11). An Agile Performance Management System for Achieving Sustainable Industry 4.0. Paper presented at the One-Day Hybrid International Conference on Sustainability in Industry 4.0, MSNM Manel Srinivas Nayak Institute of Management (MSNIM) in association with Limkokwing University Malaysia.
- 4. Aliyu Mohammed. (2024). Investigating Reskilling and Up-Skilling Efforts in the Information Technology and Software Development Sector: A Case Study of Kano State, Nigeria. Paper presented at the International Conference on Paradigm Shift Towards Sustainable Management & Digital Practices: Exploring Global Trends and Innovations.
- 5. Al-Mamary, Y. H. (2025). *The transformative power of artificial intelligence in entrepreneurship.* Journal of Business Research and Innovation, 18(2), 45–62.
- 6. Alshurideh, M., Al Kurdi, B., Salloum, S., & Masa'deh, R. (2024). Artificial intelligence in identifying market opportunities: Revolutionizing entrepreneurial strategy and innovation. International Journal of Data and Network Science, 8(2), 101–118.
- 7. Alshurideh, M., Hassan, Y., & Al Kurdi, B. (2024). *Artificial intelligence in identifying market*



- opportunities: Revolutionizing entrepreneurial strategy and innovation. International Journal of Innovation Management, 28(7), 245–263.
- 8. Anser, M. K., Shahzad, M. F., & Xu, S. (2024). Exploring the nexuses between international entrepreneurship and sustainable development of organizational goals: Mediating role of artificial intelligence technologies. Environment, Development and Sustainability, 1–27.
- 9. Bernadine, O., & Amaugo, E. (2025). Leveraging Artificial Intelligence Technologies for Successful Business Management by Entrepreneurs in Anambra State. *African Journal of Business Innovation*, 7(2), 44–60.
- 10. Chukwuka, E., & Igweh, J. (2024). Strategic Impact of Artificial Intelligence (AI) on Entrepreneurial Creativity and Management. *Journal of Entrepreneurship and Innovation*, 8(1), 78–96.
- 11. Csaszar, F. A., Ketkar, H., & Kim, H. (2024). Artificial intelligence and strategic decision-making: Evidence from entrepreneurs and investors. Strategy Science, 9(4), 322–345.
- 12. Edilia, S., & Larasati, R. (2023). Innovative approaches in business development strategies through artificial intelligence technology. *Asian Journal of Entrepreneurship*, 12(1), 77–93.
- 13. Govindan, K. (2022). How artificial intelligence drives sustainable frugal innovation: A multitheoretical perspective. IEEE Transactions on Engineering Management, 71, 638–655.
- 14. Harahap, D., Nasution, R., & Sinaga, T. (2024). Toward Competitive Advantage: Harnessing Artificial Intelligence for Business Innovation and Entrepreneurial Success. *International Journal of Business Analytics*, 16(4), 101–119.
- 15. Harahap, R. A., Lubis, M., & Nasution, M. (2024). Toward competitive advantage: Harnessing artificial intelligence for business innovation and entrepreneurial success. Journal of Entrepreneurship and Innovation in Emerging Economies, 10(1), 1–16.
- 16. Harahap, S. R., Rahim, A. A., & Halim, M. (2024). *Toward competitive advantage: Harnessing*

- artificial intelligence for business innovation and entrepreneurial success. Journal of Entrepreneurship and Innovation Studies, 12(3), 89–108.
- 17. Jia, Y., & Wang, H. (2024). Application of artificial intelligence based on the fuzzy control algorithm in enterprise innovation. *International Journal of Fuzzy Systems*, 26(1), 11–26.
- 18. Julie, R. L., Raja, S., Selvan, P. T., Priya, M. R., & Rajagopal, N. K. (2024). Exploring the Transformative Effects of AI on Entrepreneurship in Business Performance. In Balancing Automation and Human Interaction in Modern Marketing (pp. 127-150). IGI Global Scientific Publishing.
- 19. Julie, R., Smith, K., & Lopez, A. (2024). Exploring the transformative effects of AI on entrepreneurship in business performance. Global Journal of Business and Technology Research, 18(1), 43–59.
- 20. Julie, S., Emmanuel, K., & Obeng, R. (2024). Exploring the transformative effects of AI on entrepreneurship in business performance. International Journal of Business and Technology, 9(1), 211–228.
- 21. Khalid, S. (2020). Artificial intelligence learning and entrepreneurial performance among university students: Evidence from Malaysian higher educational institutions. *International Journal of Educational Technology*, 17(2), 33–48.
- 22. Kisielnicki, J., Zadrożny, J., & Fabisiak, S. (2022). Artificial intelligence as a tool supporting organizational entrepreneurship—theoretical problems and case analysis. Problemy Zarządzania, 20(1/2022 (95), 125-149.
- 23. Kumar, M. A., Mohammed, A., Raj, P., & Sundaravadivazhagan, B. (2024). Entrepreneurial Strategies for Mitigating Risks in Smart Manufacturing Environments. In *Artificial Intelligence Solutions for Cyber-Physical Systems* (pp. 165-179). Auerbach Publications.
- 24. Kuzior, A., Sira, M., & Brożek, P. (2023). Use of artificial intelligence in terms of open innovation process and management. Sustainability, 15(9), 7205.



- 25. Lawal, T. O., Abdulsalam, M., Mohammed, A., & Sundararajan, S. (2023). Economic and environmental implications of sustainable agricultural practices in arid regions: A cross-disciplinary analysis of plant science, management, and economics. *International Journal of Membrane Science and Technology*, 10(3), 3100–3114. https://doi.org/10.15379/ijmst.v10i3.3027
- 26. Lee, J., Suh, T., Roy, D., & Baucus, M. (2019). Emerging technology and business model innovation: the case of artificial intelligence. Journal of Open Innovation: Technology, Market, and Complexity, 5(3), 44.
- 27. Lee, S. (2020). Role of artificial intelligence and enterprise risk management to promote corporate entrepreneurship and business performance: Evidence from Korean banking sector. *Asian Business & Management Journal*, 22(3), 101–118.
- 28. López-Solís, P., García, E., & Mendez, R. (2025). Effect of generative artificial intelligence on strategic decision-making in entrepreneurial business initiatives. Technological Forecasting and Social Change, 204, 123–140.
- 29. Maulida, R., Suryana, Y., & Firmansyah, H. (2024). Entrepreneurial transformation through the utilization of artificial intelligence: Impact on product innovation and business sustainability. Journal of Entrepreneurship, Business and Economics, 12(3), 125–141.
- 30. Mitrache, M. D., Spulbar, L. F., & Mitrache, L. A. (2024). The Influence of AI Technology in Stimulating Growth and Innovation in Business. Revista de Stiinte Politice, (81), 51-61.
- 31. Mohammed, A. (2023). Analyzing global impacts and challenges in trade management: A multidisciplinary study. Economics, Commerce and Trade Management: An International Journal (ECTU), 3.
- 32. Mohammed, A. (2023). Navigating the digital marketplace: Strategies for entrepreneurship in electronic commerce. Computer Applications: An International Journal (CAIJ), 10(3/4). Retrieved

from https://airccse.com/caij/papers/10423caij06.pdf.

- 33. Mohammed, A. (2023). Strategic utilization of management information systems for efficient organizational management in the age of big data. Computer Applications: An International Journal (CAIJ), 10(3/4). Retrieved from https://airccse.com/caij/papers/10423caij02.pdf
- 34. Mohammed, A., & Sundararajan, S. (2023). *Analyzing policy challenges in the financial sector: Implications for effective financial management.* In Digitalization of the banking and financial system (October 2023 edition, pp. 32–43). ISBN: 978-93-91772-80-2.
- 35. Mohammed, A., & Sundararajan, S. (2023). Emerging trends of business transformation. *MSNIM Management Review*, 1, 36–44. MSNIM Management Review (MMR).
- 36. Mohammed, A., & Sundararajan, S. (2023). *Exploring the dynamic interplay between startups and entrepreneurship: A conceptual analysis.* In Digital Startup: A multidisciplinary approach in technology and sustainable development (pp. 1–7). ISBN: 978-93-93376-66-4.
- 37. Mohammed, A., Jakada, M. B., & Lawal, T. O. (2023). Examining the impact of managerial attitude on employee performance and organizational outcomes: A conceptual analysis. IJBRE International Journal of Business Review and Entrepreneurship, 4(1), 1115-9146.
- 38. Mohammed, A., Shanmugam, S., Subramani, S. K., & Pal, S. K. (2024). Impact of strategic human resource management on mediating the relationship between entrepreneurial ventures and sustainable growth. Serbian Journal of Management.
- 39. Mohammed, A., Shanmugam, S., Subramani, S. K., & Pal, S. K. (2024). *Impact of strategic human resource management on mediating the relationship between entrepreneurial ventures and sustainable growth.* Serbian Journal of Management. https://doi.org/10.5937/IMCSM24044M
- 40. Mohammed, A., Sundararajan, S., & Lawal, T. (2022). The effect of training on the performance



- of small and medium-sized enterprises (SMEs) in Kano metropolis. *Seybold Report*, 17(6)
- 41. Mohan, R. (2024). *Inter-firm imitation of artificial intelligence: Towards innovation and competitive edge in business*. Organizational Dynamics, 101114.
- 42. Muhammed, A., Sundararajan, S., & Lawal, T. (2022). The effect of training on the performance of small and medium-sized enterprises (SMEs) in Kano Metropolis. Seybold Report, 17(6).
- 43. Perifanis, D., & Kitsios, F. (2023). Investigating the influence of artificial intelligence on business value in the digital era of strategy. *Strategy and Management Review*, 11(3), 56–72.
- 44. Redondo-Rodríguez, R., González-Gómez, H., & Pérez-López, M. C. (2025). *Entrepreneurship and artificial intelligence: A bibliometric analysis*. Technovation, 129, 102821.
- 45. Secundo, G., Spilotro, C., Gast, J., & Corvello, V. (2025). The transformative power of artificial intelligence within innovation ecosystems: a review and a conceptual framework. Review of Managerial Science, 19(9), 2697–2728.
- 46. Senadjki, A., Ogbeibu, S., Mohd, S., Hui Nee, A. Y., & Awal, I. M. (2023). Harnessing artificial intelligence for business competitiveness in achieving sustainable development goals. Journal of Asia-Pacific Business, 24(3), 149–169.
- 47. Shanmugam Sundararajan, S., Rajkumar, T., Senthil Kumar, T., Mohammed, A., & Prince Martin, V. (2024). An analytical study on factors influencing individual investors' investment decisions on selecting private commercial banks at Kano City in Nigeria. *European Chemical Bulletin*, *12*(1), 3706–3717. https://doi.org/10.31838/ecb/2023.12.s1-B.372
- 48. Sundararajan, S., & Mohammed, A. (2022). Entrepreneurial opportunities for women. In Proceedings of the Conference on Gender Equality

- and Women Empowerment. European Journal of Humanities and Educational Advancements, Special Issue 1, 112–115. ISSN (E): 2660-5589.
- 49. Sundararajan, S., & Mohammed, A. (2023). Evaluation of teachers History to current era. Samzodhana Journal of Management Research, 13(2). Published by the Department of Management Studies, Easwari Engineering College (Autonomous). Retrieved from http://eecmbajournal.in
- 50. Sundararajan, S., Mohammed, A., & Lawal, T. (2023). Role of human resource management in the post COVID-19 era: Experiential study. Bio Gecko: A Journal for New Zealand Herpetology, 12(2).
- 51. Sundararajan, S., Mohammed, A., & Senthil Kumar, S. (2023). A perceptual study on the impact of agile performance management system in information technology companies. *Scandinavian Journal of Information Systems*, 35(1), 3–38. https://doi.org/10.5281/SJIS.77516
- 52. Tominc, P., Oreški, D., & Rožman, M. (2023). Artificial intelligence and agility-based model for successful project implementation and company competitiveness. Information, 14(6), 337.
- 53. Usman, A., Iqbal, M., & Ahmad, S. (2024). A critical review of AI-driven strategies for entrepreneurial success. *Journal of Business Innovation*, 19(3), 211–233.
- 54. Usman, M., Bello, A., & Karim, S. (2024). A critical review of AI-driven strategies for entrepreneurial success. Journal of Innovation and Entrepreneurship Studies, 12(4), 145–162.
- Yadav, S., & Rena, S. (2024). Impact of Entrepreneurial Leadership, Talent Management, Social Media, Artificial Intelligence and Digital Technology on Business Performance in Handicraft Industry. *Journal of Entrepreneurship Research*, 19(1), 55–71.

