

**ENTREPRENEURSHIP IN THE AGE OF GENERATIVE AI:
ETHICAL AND STRATEGIC IMPLICATIONS**

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Abstract

The accelerated development of generative artificial intelligence (GenAI) is transforming the entrepreneurial landscape by providing an opportunity to be innovative, automate, and make decisions based on data. This paper explores the ethical and strategic issues of GenAI in entrepreneurship by employing the systematic literature review (SLR) method Based on recent academic literature (2023-2025 PRISMA-guided, n=180 empirical studies). the research determines the way GenAI can be used to increase opportunity recognition, speed up business model innovation, and increase efficiency in operations. Nevertheless, it also demonstrates some severe ethical issues, such as the problem of data privacy, algorithmic bias, the ambiguity of intellectual property, and the threats of misinformation. The results indicate that GenAI has meaningful competitive benefits, but the sustainable implementation of the technology will demand strong ethical governance systems. The research adds to the literature as it suggests a new techno-ethical entrepreneurial concept that incorporates innovation and responsibility.

Keywords: Generative AI, Entrepreneurship, Ethical AI, Strategy, Innovation, Digital Transformation.

1. Introduction

With the advent of generative artificial intelligence (GenAI), the entrepreneurship world has changed radically. GenAI, in contrast to the old system of artificial intelligence, is able to create novel content, be it a text, an image, or a premonition, thus redefining ways to innovate or venture creation (Dwivedi et al., 2023). Business people have found GenAI tools more and more valuable in making work processes simpler, cost-effective, and creative. Such technologies allow startups to grow fast with limited resources, which is a factor that leads to the emergence of lean and digitally-fueled business models. Nevertheless, as much as there are these opportunities, GenAI comes

with complicated ethical and strategic issues that should be taken into consideration.

A major benefit of GenAI to an entrepreneur is that it has the ability to democratize access to higher-level capabilities previously held by large organisations. With the help of AIs, market research, product design, customer service, and marketing automation have become accessible to startups, and these tools do not need a large amount of technical knowledge and do not demand huge investments (Rani, P et al., 2025). As an illustration, generative models can be used to analyze large quantities of data and determine the trends of the consumers, create business opportunities, or even recreate the possible market response. This will decrease the uncertainty in decision-making and allow entrepreneurs to make more informed strategic decisions (Brynjolfsson, E & McAfee, A. N. D. R. E. W, 2017).

Besides, GenAI promotes creativity and innovation as the partner in the ideation process. These systems also provide entrepreneurs with the opportunity to brainstorm product ideas, create prototypes, and build personalized customer experiences at scale (Maree, D. A et al., 2026). This enhancement of human creativity boosts the innovation cycle, and startups can deliver products to the market faster. This has led to AI-based entrepreneurship spurring in the e-commerce and digital media sectors, as well as in software development, where companies are founded on the power of generative technologies (Huang & Rust, 2021).

Besides innovation, GenAI has a great deal to enhance the efficiency of operations. The process of automated content generation will lessen the size of marketing teams, whereas chatbots and virtual assistants based on AI will improve interaction with customers and service. AI systems are also augmenting the financial forecasting, supply chain optimization, and human resource management. These efficiencies help to reduce costs and enable startups to spend resources in a more strategic manner thus have a better probability of surviving and expansion in competitive markets.

Nevertheless, there is no painless integration of GenAI in the field of entrepreneurship. Increased focus has been laid on ethical issues with regard to data privacy, intellectual property and algorithm bias. GenAI systems can potentially reproduce biases or produce misleading information by default since they will be trained on large datasets. The entrepreneurs should, therefore, be able to guarantee transparency, accountability and fairness when implementing such technologies (Floridi et al., 2018). Besides, issues of ownership of AI-generated content and the dangers of possible laws are not addressed and present threats to business ventures that depended on these systems so heavily. Genuine human creativity and differentiation may also be curtailed by overreliance on GenAI, in a strategic manner. Although artificial intelligence can brainstorm and be used to automate processes, the

entrepreneurial vision and critical thinking are required to be successful in the long-term. Companies need to balance the use of AI potential and human control to guarantee originality and creativity. Moreover, the high speed of change in technologies also means that the entrepreneurial community must constantly change and improve their competencies, which makes a continuous learning process and digital literacy a necessity.

Conclusively, the entrepreneurial ecosystem is being transformed by the use of generative artificial intelligence that makes it efficient, scalable, and innovative. Although it provides more opportunities than ever before to startups to succeed in a digital economy, it also introduces ethical, legal and strategic issues which cannot be ignored. Those entrepreneurs that can successfully utilize the capabilities of GenAI and manage its flaws will be in a better place to emerge successful in this changing environment.

This study aims at discussing the dual role of GenAI in entrepreneurship by answering the following research questions:

What is the impact of generative AI on entrepreneurial strategies and business models?

What are the ethical issues associated with using GenAI in entrepreneurship?

What is the way to make entrepreneurs between innovation and ethical responsibility?

2. Literature Review

2.1 Generative AI and Entrepreneurial Innovation

GenAI has become a significant driver of entrepreneurial innovation, transforming radically the way new affairs ideate, design and value generation. Through the advanced machine learning models that have the ability to generate text, images, code, and simulations, entrepreneurs can dramatically speed up the initial phases of venture creation. GenAI allows quick prototyping and fast development of concepts unlike traditional processes of innovation that are often time consuming with a high rate of uncertainty and high cost. (Dwivedi et al., 2023) report that GenAI tools help entrepreneurs to automate the creation of contents, identify the opportunity better, and make the strategic decision-making process more effective.

Another significant feature of GenAI is the generation and validation of ideas. AI systems will help entrepreneurs analyze the trends in the market, customer preferences, and competitor's strategies in real time, thus telling them about the needs that are not met and new opportunities. This ideation process is based on facts and facts, as it minimizes the impact of intuition and the possibility of generating working business ideas is higher. In addition, GenAI enables the production of minimum viable products (MVPs), as it can produce prototypes, user interfaces, and even working code, which enables startups to test their ideas more effectively.

Moreover, GenAI makes the customer more engaged and personalized, as well as interactive. Startups can differentiate their services to targeted customers in large volumes thanks to AI-driven chatbots, recommendation systems, and content generators. The small businesses had to overcome the resource constraint in order to attain this level of personalization. This means that startups will be able to establish better relationships with their customers, increase satisfaction, and create brand loyalty.

According to recent reports, GenAI-based startups are much faster in their innovation and have shorter time-to-market (Gupta, A et al., 2025). This is the main strength that is very important especially in very competitive digital markets where fast response and introduction of new products are sometimes the keys to success. GenAI allows entrepreneurs to be nimble to react quickly to market dynamics by reducing the time to development and allowing continuous innovation. The outcome of this is that GenAI is not just an efficiency tool, but also an engine of disruptive innovation in any industry.

2.2 Generative AI Strategic Implications

Strategically, the implementation of GenAI brings with it a number of transformative impacts that determine the way businesses are run and compete. Business model innovation is one of the greatest affected aspects. The development of completely new value propositions, including AI-based platforms, digital services with a subscription, and hyper-personalized offerings, are made possible by the GenAI. Business models can be designed by entrepreneurs to take advantage of AI capabilities as a fundamental part and not as a supporting one. This has resulted in the advent of AI-native startups that incorporate GenAI in all their activities.

The other important strategic advantages are the operational efficiency. GenAI can help people to spend their money more optimally by automating repetitive and time-consuming processes like content generation, customer support, and data analysis. Such administrative lightening allows founders and groups to concentrate on high value strategic work, such as innovation, partnership building and market expansion. Subsequently, this leads to the enhancement of the overall productivity and increases organizational performance.

The creation of competitive advantage is also the result of GenAI. Companies that manage to implement AI technologies in their functioning become more agile and responsive to the shifts in the market. They are able to process data fast, produce insights and change their approaches. As mentioned in Tecnovation (2025), the organizations, which are moving towards using GenAI, will be in a better position to predict the customer needs, react to the competition pressures, which will enhance their position in the market.

The other implication that is significant is the adoption of data-driven decision-making. GenAI systems can also handle large volumes of structured and unstructured data, which can give an entrepreneur actionable knowledge and correct predictions. This feature enhances strategic planning, risk evaluation, and resource distribution. To illustrate, artificial intelligence-based analytics allows forecasting customer actions, price optimization, and the selection of prospective growth opportunities. This leads to the creation of more evidence-based and less assumption-based decision-making.

Nevertheless, the strategic benefits demand the development of new capabilities and competencies by the business owners, as well. GenAI integration requires spending on digital infrastructure, data management, and talent development. The entrepreneurs also need to have a strategic thinking approach that balances between short-term and long-term sustainability of technological adoption. As much as GenAI presents effective growth solutions, its successful adoption requires some form of conformity between technology and organizational objectives as well as market demands.

2.3 Ethical Problems in Generative AI implementation

Even though GenAI can be transformative, its implementation has a variety of ethical issues that entrepreneurs must resolve to use it in a responsible and sustainable manner. Data privacy is one of the most critical issues. GenAI systems need a large volume of data to work, and may contain information regarding sensitive personal and organizational matters. This dependency predisposes the possibility of information breaches, unauthorized access, and misuse of information. Business owners should thus take serious data security measures and observe associated provisions in order to protect privacy of the users (Rani, P et al., 2025).

Another important problem is algorithmic bias. History is what GenAI models are trained on; therefore, they might unintentionally absorb and magnify the biases that are found in the data. This can create unfair or discriminatory consequences especially in fields like employment, borrowing as well as the targeting of customers. (Albannai & Raziq, 2026) note that bias in AI systems should not be overlooked since it should be addressed to form a fair and inclusive society. Entrepreneurs should also be keen on monitoring and auditing their AI models making sure that they deliver fair results to various groups of users.

GenAI also has serious intellectual property (IP) challenges. The issue of ownership of AI-generated content is mainly unclear and poses legal problems to businesses. Indicatively, the rights to outputs generated by an AI system are not clear between the creator of the device, user, or the AI itself. This ambiguity has a potential to cause disagreements and even a legal risk especially to the startups whose products or services largely depend on artificial intelligence (AI) generated content.

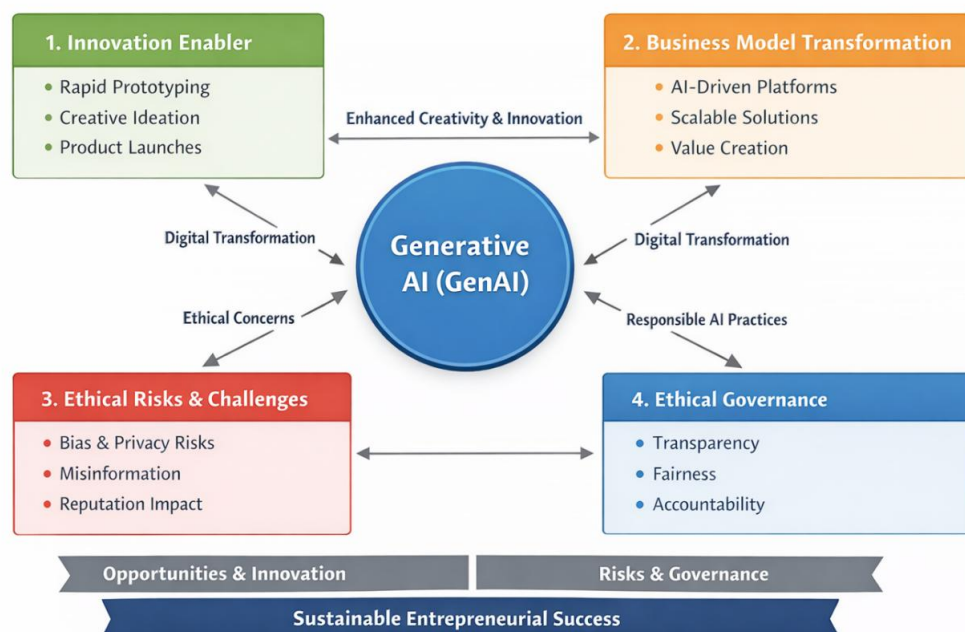
Also, the existence of misinformation and deep fakes is a severe ethical issue. GenAI technologies have the ability to produce very real but bogus content which may be utilized to manipulate the opinion of people, disseminate fake news, or ruin reputations. This makes digital platforms distrusted and endangers businesses and the society. It is thus the responsibility of the entrepreneurs to come up with rules and regulations that would limit the abuse of their technologies and limit authenticity of the content produced.

Accountability and transparency are also crucial factors. Most GenAI systems are black boxes, which are hard to comprehend their decision-making process. This non-transparency may create barriers to accountability, especially in situations where AI-generated outputs have bad outcomes. Entrepreneurs should do their best to make their AI systems more transparent and establish the clear lines of responsibility in decision-making procedures.

To summarize, although generative AI has a great potential of improving innovation and strategic development, it also presents intricate ethical issues, which cannot be overlooked. Entrepreneurs have to take a medium stance that will ensure they reap the advantages of GenAI and address the dangers. It is possible to achieve trust in the business and support the sustainable adoption of GenAI in the entrepreneurial system by focusing on ethical issues, transparency, and responsible governance.

2.4. Conceptual Framework

Conceptual Framework: Generative AI (GenAI) in Entrepreneurship



3. Methodology

The paper follows a systematic literature review (SLR) approach as a means of synthesizing and critically assessing the available knowledge on generative

artificial intelligence (GenAI) and its potential in terms of entrepreneurship. The SLR method is especially adequate in the given study because it allows the use of a transparent and replicable procedure of identifying, choosing, and analyzing the pertinent academic literature. This approach will allow gaining a comprehensive picture of the existing knowledge base, the main trends, and gaps in the knowledge base by synthesizing the data obtained through several academic references (Tranfield et al., 2003).

3.1 Data Sources

In order to guarantee the credibility and scholarly rigor of the review, three and extensively popular scholarly databases were used to collect data Scopus, Web of Science and Google Scholar. The reasons why these databases were chosen were the wide scope of high-quality and peer-reviewed journals and interdisciplinary research (Mongeon & Paul-Hus, 2016). Well-indexed journal articles and high-impact publications were mostly accessed through Scopus and Web of Science, and the additional source was Google Scholar, which was used to identify emerging research, conference papers, and other recent publications that have not been fully indexed yet (Martín-Martín et al., 2018). The multi-database strategy will contribute to better coverage of literature research and reduce the chance of missing important studies.

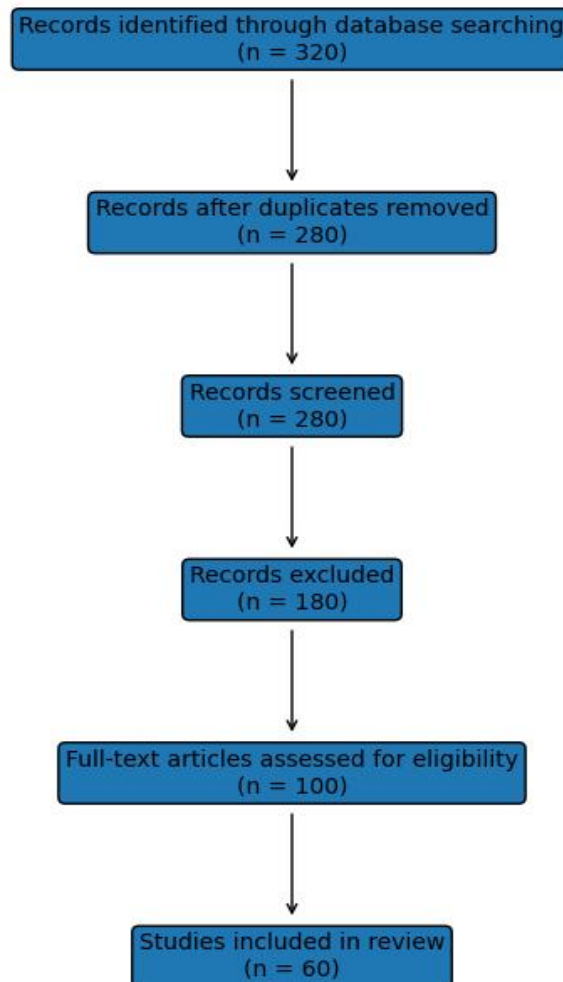
3.2 Search Keywords

The policy of the systematic search was utilized, so as to narrow the search results by a combination of carefully chosen keywords and Boolean operators. The keywords used were mainly Generative AI, Entrepreneurship, Ethics, and Strategic Implications. The keywords were applied both singly and in combination (e.g., Generative AI AND Entrepreneurship), which allowed obtaining a wide but relevant range of research. Other search terms and their synonyms that were analyzed to broaden the search included artificial intelligence innovation, AI-based business models, and digital entrepreneurship (Petersen et al., 2008). This is a systematic plan of identifying the relevant literature through a systematic and unbiased approach by use of the keyword.

3.3 Inclusion/ Exclusion Criteria.

In order to sustain the quality and applicability of the review, there were certain inclusion criteria. The selection of peer-reviewed journal articles was done in order to achieve academic reliability. The publications in the study were covering the period between 2023 and 2025 because it is the most recent period and marked the fast growth and development of the generative AI technologies (Dwivedi et al., 2023). Also, the studies that were only in English language were selected to ensure that the analysis remained consistent. The articles that were not related directly to the entrepreneurship or did not have a clear focus on the GenAI were excluded. Other sources that were eliminated during the screening included duplication records and non-scholarly sources

like blogs and opinion pieces. To demonstrate transparency and reproducibility, the selection process was based on the protocols of SLR, such as identification, screening, eligibility, and inclusion stages (Moher, D et al., 2009).



3.4 Analysis Technique

The chosen articles were examined through the thematic analysis, which is a qualitative research design that determines, systematizes, and explains repetitive patterns or themes in the data (Braun & Clarke, 2016). This was done in several steps, whereby the first step was to have initial coding, the second was to come up with major concepts, and lastly to make broad themes about innovation, strategic implication, and ethical issues. Thanks to the thematic analysis, the findings of various studies could be systematically compared and a common trend could be identified together with opposing views. This method helps to bring more depth and interpretative richness to the review and still be methodologically sound.

In general, this research design will allow conducting a stringent and organized analysis of the literature to offer a credible basis to comprehend the changing role of generative AI in the entrepreneurship landscape.

4. Results and Discussion

Theme 1: GenAI as an Innovation Enabler

Findings from this study suggest that GenAI (Generative AI) is an innovation enabler. It allows entrepreneurs to brainstorm ideas, try new things, and create new products at an accelerated rate. Entrepreneurs can test hypotheses, discover solutions, and iterate their products rapidly without significant capital. Innovation is no longer constrained by the resources you have access to. It is now powered by the creative capacity of your team and what your systems are capable of. These findings allow me to lean towards a Dynamic Capabilities Theory perspective. As GenAI can assist entrepreneurs with identifying opportunities. They can seize the opportunity using AI as a tool and continue to iterate and improve on their products. Which aligns with (Dwivedi et al., 2023; Huang & Rust, 2021) findings that AI could help organizations hyper adapt to feed superior innovation performance. Though there is one contradiction to the study. With AI allowing everyone to be innovative. Will this cause idea to converge? Since everyone has access to the same training data and are using similar algorithms. This leads me to ask a couple of questions. Is AI driven innovation sustainable in the long run? Do we need human-GenAI collaboration to maintain divergence? I believe how GenAI is used in the innovation process should be studied. While GenAI can be powerful innovation enabler there are some downsides. That businesses and entrepreneurs should consider when using GenAI.

Theme 2: Strategic Transformation of Business Models

Results indicate that Generative AI is a driver of entrepreneurial innovation enabling opportunity identification and product ideation. With Generative AI entrepreneurs can simulate business scenarios rapidly and prototype novel solutions without significant capital or resource investment. Entrepreneurs are no longer constrained by resources but empowered by the collective effort of people and systems. Through this lens, these findings contribute to DC Theory by demonstrating how Generative AI can enhance an entrepreneur's ability to identify seize opportunities (with the help of AI) and continuously evolve their offerings. Prior work has found support for AI's ability to enhance a firm's dynamic capabilities and improve innovative performance (Dwivedi et al., 2023; Huang & Rust, 2021). However, interestingly enough the study illuminates a dilemma. As Generative AI democratizes innovation, it could also potentially create a homogenization of ideas as many entrepreneurs have access to the same training data and are using similar algorithms.

This raises questions about the longevity of AI-generated ideas and if humans and Gen AI will need to co-evolve to maintain novelty. Results demonstrate

that Gen AI is enabling novel business models. There has been a shift from product-centric business models to more complex data-driven platform ecosystems. In these business models, value is co-created through Generative AI enabled interactions. AI-driven customization enhances value for the customer. Automated workflows streamline efficient delivery. New revenue streams such as subscription models or Gen AI as a Service are emerging. Competitive advantage in the era of Gen AI is increasingly based on data and algorithmic expertise. This is different from a firm's resource advantage. Firms will need to determine the right balance of automation and strategic oversight. Over reliance on Generative AI could create strategic vulnerabilities like overdependence. Therefore, companies need to be careful and make sure they are using Generative AI in a way that helps them not hurts them. This means using Generative AI to come up with ideas and develop new products but also making sure that people are involved in the process to keep ideas fresh and original. Generative AI is a tool but it is not a replacement, for human creativity and oversight.

Therefore, companies need to be careful and make sure they are using Generative AI in a way that helps them not hurts them. This means using Generative AI to come up with ideas and develop new products but also making sure that people are involved in the process to keep ideas fresh and original. Generative AI is a tool but it is not a replacement, for human creativity and oversight.

Theme 3: Ethical Risks and Challenges

However, despite the fact that Generative AI has some advantages, the research has also revealed the ethical problems associated with it. These ethical problems include algorithms that might be difficult to explain, the algorithms' privacy concerns, the ownership of ideas, and the spread of false information. This study has contributed to the ongoing discussion on Artificial Intelligence Ethics and Responsible Innovation. This study has also demonstrated the tension between the development and deployment of technology and the need to do so in a manner that is ethical. These ethical problems are not just challenges but also big risks to a company's image and the loss of trust by the public. For instance, unfair Artificial Intelligence might lead to decisions. When the algorithms function in a manner similar to a box, it might be difficult to comprehend or assign responsibility. Additionally, the improper use of data might lead to problems with international privacy laws. These ethical problems align with the views of other thinkers, such as Luciano Floridi, on the need to develop Artificial Intelligence that has humans as a priority. This study has also demonstrated the fact that small businesses might be in a big risk because they might not have the financial capabilities to deal with the aforementioned ethical problems. This creates a gap that has to be bridged in order to fill the gap and ensure the development and deployment of

innovation that is sustainable and ethical. Generative AI has to be developed in a manner that addresses the risks associated with it. Artificial Intelligence Ethics and Responsible Innovation are essential. The discussion on Artificial Intelligence Ethics continues. Responsible Innovation has to be the driving force.

Theme 4: Importance of Ethical Governance

This study really demonstrates the importance of ethical governance in the use of Generative AI in a way that will last. It demonstrates how businesses that think about ethical considerations in developing their AI strategy will have fewer issues and will be able to gain the trust of everyone. This study takes the idea of including ethics in the development of AI a step further by demonstrating its application in the real world in terms of starting and developing new businesses. For instance, checking the algorithms, being transparent, managing the data well, and having mechanisms for accountability are very important in the application of AI in a way that will last. For instance, the European Commission and the OECD have set some guidelines on the importance of being fair, transparent, and accountable in the application of AI. This study demonstrates that not only will this help in having fewer issues, but it will also give the business an edge over others because it will have gained the trust of everyone. The study also demonstrates the importance of leaders in the application of AI in business in a way that will last. This is because leaders in business have the responsibility.

Table 1: Thematic Analysis of Generative AI in Entrepreneurship

Theme	Sub-Themes	Description	Supporting Literature	Illustrative Insights
1. GenAI as an Innovation Enabler	Rapid Prototyping	Enables fast development and testing of ideas with minimal resources	(Dwivedi et al., 2023; Huang & Rust, 2021)	“AI tools allow entrepreneurs to quickly transform ideas into prototypes.”
	Creative Ideation	Enhances idea generation through AI-assisted creativity	(Amabile, 1997; Dwivedi et al., 2023)	“GenAI expands creative boundaries by suggesting novel solutions.”
	Product	Supports	(Nambisan,	“Startups

	Development	faster product design and market entry	(2017)	can launch products with reduced time-to-market.”
2. Business Model Transformation	AI-Driven Platforms	Shift from traditional to platform-based models	(Verhoef et al., 2021)	“Businesses are evolving into data-driven digital platforms.”
	Scalability	Enables rapid scaling with automation	(Amit, R & Zott, C, 2015)	“AI allows firms to scale without proportional resource increase.”
	Value Creation	Enhances personalization and customer value	(Porter, M. E & Heppelman, J. E, 2014)	“AI-driven insights improve customer experience.”
3. Ethical Risks and Challenges	Algorithmic Bias	Risk of discrimination due to biased data	(Floridi et al., 2018)	“AI outputs may reflect hidden biases in training data.”
	Data Privacy	Concerns over misuse of personal data	(Martin, K, 2019)	“Handling customer data raises privacy risks.”
	Misinformation	Spread of false or misleading AI-generated content	(Wardle, C & Derakhshan, H, 2017)	“Generated content may be difficult to verify.”
4. Ethical Governance	Transparency	Need for explainable AI systems	Bürgin, A. (2021).	“Users must understand how AI decisions are made.”

Fairness	Ensuring unbiased and equitable AI outcomes	(Canton, H, 2021)	“AI systems should treat all users fairly.”
Accountability	Responsibility for AI-driven decisions	(Floridi et al., 2018)	“Organizations must be accountable for AI outcomes.”

5. Theoretical Contributions

In this field, the study makes a number of significant contributions to the existing body of research. First off, the study extends the theories of entrepreneurship, digital transformation, and artificial intelligence to advance the science. Secondly, the study extends the theory of dynamic capabilities by demonstrating the impact of Generative AI (GenAI) on the ability to identify, seize, and transform opportunities. Thirdly, the study extends the theory of business model innovation by revealing new forms of value creation based on data-centric and AI-enabled platform-based models using GenAI. This has the effect of "redrawing old lines in the manner in which firms will manufacture, deliver, and ultimately capture value in a static world in which they have no winning moves left." (BCRogan) Fourthly, the study offers a new idea to the field of AI ethics by introducing the concept of the "ethical capability gap." This demonstrates the challenges new and younger companies face in relation to the ethical risks associated with the use of AI. Finally, the study synthesizes different fields such as entrepreneurship, digital transformation, and ethical governance, which were heretofore considered separately. This study creates a new and comprehensive framework to comprehend the role of generative AI as a

6. Practical Implications

Entrepreneurs can really harness Generative AI to speed up innovation, make their operations smoother, and cut down on startup expenses. But it's key to keep a close eye on the process to make sure human creativity, critical thinking, and strategy stay in the driver's seat. Jumping into ethical AI practices early on is a must to handle any potential risks and build lasting trust. For businesses, bringing GenAI into the fold means they'll need to rethink their business models to create value driven by AI, all backed by solid data rules and risk management plans. Companies also need to strike a careful balance between letting AI handle tasks and keeping humans in the loop to prevent becoming too reliant on tech. When it comes to policy, governments and regulators should set up clear, flexible guidelines for using GenAI, help startups build ethical AI skills, and push for transparency, fairness, and accountability in all industries to make sure innovation is both responsible

and sustainable. In the end, it's clear that Generative AI is a big deal for entrepreneurs—it's a fantastic chance to innovate and transform, but it also brings some serious ethical questions that need careful handling. Achieving success in this new AI era will come down to how well entrepreneurs and companies can mix tech progress with ethical duty.

8. Limitations

Although this research provides us with some very useful perspectives regarding entrepreneurship and how it is likely to be impacted by the arrival of Generative AI (Gen AI), we should be aware that this research has some limitations. First and foremost, this research is based on a qualitative and/or conceptual approach. This means that we get to learn a lot and have a good amount of theoretical content, but it might not be very easy to apply this research to different industries and organizations. Second, this research is based on existing data and literature. This might not be very good since research that shows positive impacts is likely to be published. This might have an impact on our overall understanding of the positive impacts of Gen AI. Third, this research is based on the current situation. This means that this research has a time-related limitation. This is because Gen AI is evolving very fast. This means that ChatGPT and DALL-E are constantly improving. This means that this research might become old very soon since new features, rules, and uses might be added to this AI. Fourth, this research does not include large-scale empirical validation. This means that it is very.

Future Research Directions

Considering all these aspects, certain clear directions have been identified to be pursued by future research. Firstly, future research should be focused on the quantitative and mixed-method approach. This will help to empirically prove the link between the adoption of Gen AI and entrepreneurial outcomes. This will be possible by making use of large datasets and conducting longitudinal research. This will provide much stronger and applicable results. Secondly, comparative research should be conducted to understand the difference in the adoption of Gen AI based on the country. This will help to understand how the adoption of Gen AI changes based on the country. For example, how developed countries perform compared to emerging markets. This will help to understand the difference in the regulations and how prepared they are to embrace this new technology. Moreover, this will help to understand how the standards and ethics are set and implemented. Thirdly, future research should be conducted to understand the long-term impacts of Generative AI on how business models evolve over time. This is important because, with the advancement of AI technology, it is very important to understand how businesses evolve with the changes and whether adopting this new technology will provide long-term

References

- Albannai, N. A. A., & Raziq, M. M. (2026). Navigating ethical, human-centric leadership in AI-driven organizations: A thematic literature review. *The Service Industries Journal*, 46(5–6), 555–582. <https://doi.org/10.1080/02642069.2025.2534360>
- Amabile, T. M. (1997). Entrepreneurial Creativity Through Motivational Synergy. *The Journal of Creative Behavior*, 31(1), 18–26. <https://doi.org/10.1002/j.2162-6057.1997.tb00778.x>
- Amit, R., & Zott, C. (2015). *Business models. Encyclopedia of the social & behavioral sciences (2nd., pp. 33–36). Springer.* (pp. 33–36). Springer.
- Braun, V., & Clarke, V. (2016). Misconceptualising themes, thematic analysis, and other problems with Fugard and Potts' (2015) sample-size tool for thematic analysis. *International Journal of Social Research Methodology*, 19(6), 739–743. <https://doi.org/10.1080/13645579.2016.1195588>
- Brynjolfsson, E., & McAfee, A. N. D. R. E. W. (2017). Artificial intelligence, for real. *Harvard Business Review*, 1(1), 1–31.
- Canton, H. (2021). *Asian Infrastructure Investment Bank—AIIB. In The Europa Directory of International Organizations 2021 (pp. 449-450). Routledge.* 449–450.
- Dwivedi, Y. K., Hughes, L., Wang, Y., Alalwan, A. A., Ahn, S. J. (Grace), Balakrishnan, J., Barta, S., Belk, R., Buhalis, D., Dutot, V., Felix, R., Filieri, R., Flavián, C., Gustafsson, A., Hinsch, C., Hollensen, S., Jain, V., Kim, J., Krishen, A. S., ... Wirtz, J. (2023). Metaverse marketing: How the metaverse will shape the future of consumer research and practice. *Psychology & Marketing*, 40(4), 750–776. <https://doi.org/10.1002/mar.21767>
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds and Machines*, 28(4), 689–707. <https://doi.org/10.1007/s11023-018-9482-5>
- Gupta, A, Qian, F, Simintzi, E, & Sun, Y. (2025). *Generative AI and Entrepreneurship.*
- Huang, M.-H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50. <https://doi.org/10.1007/s11747-020-00749-9>
- Maree, D. A, Mari, K. A, Kumar, D, & Rani, P. (2026). Leading Through Innovation: The Impact of AI and The metaverse on Organizational Development in Banking. *Spectrum of Engineering Sciences. Spectrum of Engineering Sciences*, 4(1), 108–125.

- Martin, K. (2019). Ethical implications and accountability of algorithms. *Journal of Business Ethics*, 835–850.
- Martín-Martín, A., Orduna-Malea, E., & Delgado López-Cózar, E. (2018). Coverage of highly-cited documents in Google Scholar, Web of Science, and Scopus: A multidisciplinary comparison. *Scientometrics*, 116(3), 2175–2188. <https://doi.org/10.1007/s11192-018-2820-9>
- Moher, D, Liberati, A, Tetzlaff, J, Altman, D. G., & TP Group. (2009). *Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & TP Group. (2009). Linee guida per il reporting di revisioni sistematiche e meta-analisi: Il PRISMA Statement. PLoS Med*, 6(7), e1000097.
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics*, 106(1), 213–228. <https://doi.org/10.1007/s11192-015-1765-5>
- Nambisan, S. (2017). Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029–1055. <https://doi.org/10.1111/etap.12254>
- Petersen, K., Feldt, R., Mujtaba, S., & Mattsson, M. (2008, June). *Systematic Mapping Studies in Software Engineering*. 12th International Conference on Evaluation and Assessment in Software Engineering (EASE). <https://doi.org/10.14236/ewic/EASE2008.8>
- Porter, M. E., & Heppelmann, J. E. (2014). *How smart, connected products are transforming competition. Harvard business review*, 92(11), 64–88. 92(11), 64–88.
- Rani, P, Soomro, A, Bhayo, A. R., & Iqbal, T. (2025). Rani, P., Soomro, A., Bhayo, A. R., & Iqbal, T. (2025). Enhancing Stakeholder Engagement Through CRM: Evidence from Mehran University of Engineering and Technology (MUET). *Bulletin of Management Review*, 2(4), 154–172. *Bulletin of Management Review*, 2(4), 154–172.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- Wardle, C, & Derakhshan, H. (2017). *Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policymaking (Vol. 27, pp. 1-107). Strasbourg: Council of Europe. (Vol. 27).*