



**VILNIUS UNIVERSITY
BUSINESS SCHOOL**

DEEPTech ENTREPRENEURSHIP [6211LX013]

Muzzamil Ali

MASTER'S THESIS:

Nuo raginimo iki prototipo: kaip netechniniai įkūrėjai pasitelkia generatyvinį dirbtinį intelektą, kad sutrumpintų MVP kūrimo ciklus	From Prompt to Prototype: How Non-Technical Founders Leverage Generative AI to Compress MVP Development Cycles
---	---

Student _____
(Signature)

Supervisor:
(Signature): _____

Dr. Egle Radvile Termine

Vilnius, 2026

SUMMARY

VILNIUS UNIVERSITY BUSINESS SCHOOL

DEEPTECH ENTREPRENEURSHIP [6211LX013]

Muzzamil Ali

From Prompt to Prototype: How Non-Technical Founders Leverage Generative AI to
Compress MVP Development Cycles

Supervisor - Dr. Egle Radvile Termini

Master's thesis was prepared in Vilnius, in 2026

Scope of the master's thesis consists - 75 pages

Number of tables used in the FMT - 6 tables

Number of figures used in the FMT - 1 figure

Number of bibliography and references– 110 sources

Study Overview:

This study discusses the role of Generative AI tools in revolutionizing the MVPs production process of non-technical founders. Using AI tools such as ChatGPT, GitHub Copilot, and Midjourney, non-technical entrepreneurs can have the chance to automatize previously technical processes, such as coding, designing, and content creation. This research will make them more creative and innovative and generate products with fewer resources. The study covered the non-technical founders using the said AI tools, challenges they face, and advantages obtained, and the influence of AI on decision-making, product cycles, and achievement of product-market fit.

Study's Aim:

The main objective of the research project was to examine how Generative AI would influence the development of MVP among non-technical founders. It also inquired about the ability of these founders to reduce the time of their development, do additional iterations, and create new products with the help of AI tools. Moreover, this research quantified the effect of AI-generated MVPs on product-market fit, entrepreneurial decision-making, and the entrepreneurial ecosystem in general.

Methodology:

The study design used in this paper assumes qualitative research, where semi-structured interviews with 15-20 non-technical founders who are on the MVP stage of using AI technology will be conducted. Besides, the 3-5 startup case studies are examined to present more detailed information about the challenges and opportunities of AI implementation in entrepreneurship. The thematic analysis is a data analysis tool that allows identifying significant patterns and themes in the adoption and use of AI tools in the creation of MVP and its effects.

Findings and Discussion:

These findings indicate that AI tools can be extremely helpful to non-tech founders, as they can be faster and less expensive in creating MVP, as well as be more creative. The utilization of AI, though, has its own problems such as shallow product validation and dependence on AI which could lead to products that are shallow. Among critical themes that can be derived based on the information is the necessity of the needs-based application of AI tools, and the two-sided outcomes of the AI on empowerment (speed and innovation) and the risk of oversimplification. Even though AI will allow founders to create and develop more efficiently, it is not immune to continuous learning, as they will have to process AI-generated outputs and make them efficient.

Conclusion:

The research identified that Generative AI devices possess an overwhelmingly beneficial influence on the speed of MVP that can be successfully applied by non-technical founders to test and iterate on products with little technical knowledge. However, the research also warns of the potential drawbacks of the excessive use of AI, including the ethical concerns, the problem of intellectual property, and the danger of the loss of technical knowledge. The results indicate that the policy of non-technical founders is to find the balance between the advantages of using AI and being aware of the limitations of AI to achieve sustainability and quality on a long-term level.

Suggestions:

1. Non-technical founders are advised to invest in implementing AI tools in their workflow to accelerate the development of MVP without losing essential control over the tool to prevent the superficial validation of the product.
2. Incubators and investors must provide training and facilities to assist the founders in creating a balance between the use of AI and technical skills to secure product quality.

3. The future research must consider how generative AI affects the innovation of products across different industries to define how AI can be applied to other situations.

Keywords: Generative AI, Non-Technical Founders, MVP Development, Lean Startup, AI Tools, Entrepreneurship, Product Development, Innovation, Product-Market Fit, Product-Relying, Startups.

KOPSAVILKUMS

Tyrimo apžvalga:

Šiame tyrime aptariamas generatyvinių dirbtinio intelekto įrankių vaidmuo keičiant netechninių įkūrėjų MVP kūrimo procesą. Naudodami tokius dirbtinio intelekto įrankius kaip „ChatGPT“, „GitHub Copilot“ ir „Midjourney“, netechniniai verslininkai gali automatizuoti anksčiau techninius procesus, tokius kaip kodavimas, dizainas ir turinio kūrimas. Šis tyrimas padės jiems tapti kūrybiškesniems ir inovatyvesniems bei kurti produktus su mažiau išteklių. Tyrime buvo nagrinėjami netechniniai įkūrėjai, naudojantys minėtus dirbtinio intelekto įrankius, jų patiriami iššūkiai ir gaunami privalumai, taip pat dirbtinio intelekto įtaka sprendimų priėmimui, produktų ciklams ir produkto bei rinkos atitikimo pasiekimui.

Tyrimo tikslas:

Pagrindinis tyrimo projekto tikslas buvo ištirti, kaip generatyvinis dirbtinis intelektas paveiktų MVP kūrimą tarp netechninių įkūrėjų. Taip pat buvo klausiama apie šių įkūrėjų gebėjimą sutrumpinti kūrimo laiką, atlikti papildomas iteracijas ir kurti naujus produktus naudojant DI įrankius. Be to, šiame tyrime buvo kiekybiškai įvertintas DI sugeneruotų MVP poveikis produkto atitikimui rinkai, verslumo sprendimų priėmimui ir verslumo ekosistemai apskritai.

Metodologija:

Šiame straipsnyje naudojamas tyrimo dizainas remiasi kokybiniu tyrimu, kurio metu bus atliekami pusiau struktūrizuoti interviu su 15–20 netechninių įmonių įkūrėjų, kurie yra MVP etape ir naudoja dirbtinio intelekto technologijas. Be to, nagrinėjami 3–5 startuolių atvejų tyrimai, siekiant pateikti išsamesnės informacijos apie dirbtinio intelekto diegimo verslume iššūkius ir galimybes. Teminė analizė yra duomenų analizės įrankis, leidžiantis nustatyti reikšmingus dirbtinio intelekto įrankių diegimo ir naudojimo kuriant MVP modelius ir temas bei jų poveikį.

Išvados ir aptarimas:

Šios išvados rodo, kad dirbtinio intelekto įrankiai gali būti labai naudingi netechnologinių įmonių įkūrėjams, nes jie gali būti greitesni ir pigesni kuriant MVP, taip pat kūrybiškesni. Tačiau dirbtinio intelekto naudojimas turi savų problemų, tokių kaip paviršutiniškas produkto patvirtinimas ir priklausomybė nuo dirbtinio intelekto, dėl kurių gali būti sukurti paviršutiniški produktai. Tarp svarbiausių temų, kurias galima išvesti remiantis informacija, yra dirbtinio intelekto įrankių taikymo poreikiais

būtinybė, dvipusiai dirbtinio intelekto rezultatai įgalinimo srityje (greitis ir inovacijos) ir pernelyg didelio supaprastinimo rizika. Nors dirbtinis intelektas leis įkūrėjams kurti ir tobulėti efektyviau, jis nėra apsaugotas nuo nuolatinio mokymosi, nes jie turės apdoroti dirbtinio intelekto sugeneruotus rezultatus ir padaryti juos efektyvius.

Išvada:

Tyrimas parodė, kad generatyvinio dirbtinio intelekto įrenginiai daro nepaprastai teigiamą įtaką MVP greičiui, kurį gali sėkmingai taikyti netechniniai kūrėjai, norėdami testuoti ir iteruoti produktus, turinčius mažai techninių žinių. Tačiau tyrimas taip pat įspėja apie galimus pernelyg didelio dirbtinio intelekto naudojimo trūkumus, įskaitant etinius klausimus, intelektinės nuosavybės problemą ir techninių žinių praradimo pavojų. Rezultatai rodo, kad netechninių kūrėjų politika yra rasti pusiausvyrą tarp dirbtinio intelekto naudojimo privalumų ir žinojimo apie dirbtinio intelekto apribojimus, siekiant ilgalaikio tvarumo ir kokybės.

Pasiūlymai:

1. Netechninių žinių turintiems įkūrėjams patariama investuoti į dirbtinio intelekto įrankių diegimą savo darbo eigoje, siekiant paspartinti MVP kūrimą neprarandant esminės įrankio kontrolės ir išvengti paviršutiniško produkto patvirtinimo.
2. Inkubatoriai ir investuotojai turi teikti mokymus ir patalpas, kurios padėtų įkūrėjams sukurti pusiausvyrą tarp dirbtinio intelekto naudojimo ir techninių įgūdžių, siekiant užtikrinti produkto kokybę.
3. Būsimoose tyrimuose reikia atsižvelgti į tai, kaip generatyvinis dirbtinis intelektas veikia produktų inovacijas skirtingose pramonės šakose, siekiant apibrėžti, kaip dirbtinis intelektas gali būti taikomas kitose situacijose.

Raktiniai žodžiai:

generatyvinis dirbtinis intelektas, netechninių žinių turintys įkūrėjai, MVP kūrimas, startuolis, dirbtinio intelekto įrankiai, verslumas, produktų kūrimas, inovacijos, produkto atitikimas rinkai, produkto priklausomybė, startuoliai.

Table of Contents

List of Tables	10
List of Figure	11
Chapter 1	
Introduction	12
1.1 Background of Study	12
1.2 Problem Statement	16
1.3 Research Questions	19
1.4 Importance and Relevance of Research.....	19
Chapter 2	
Literature Review	21
2.1 Generative AI in Entrepreneurship	21
2.2 Non-Technical Founders and MVP Development.....	23
2.3 Theoretical Framework	26
2.3.1 Effectuation Theory	26
2.3.2 Resource-Based View (RBV)	27
2.3.3 Lean Startup Methodology.....	27
2.3.4 Innovation Diffusion Theory (IDT).....	28
2.3.5 Integrative Perspective	28
2.3.6 Key Debates and Controversies	28
2.3.7 AI as an Enabler of Inclusive Innovation	29
2.3.8 The Disempowerment Argument	29
2.3.9 Ethical, Legal, and Moral Challenges.....	30
2.3.10 The Question of Sustainability and Scalability.....	30
2.3.11 Balancing Opportunity and Risk	31
2.3.12 Gaps in Existing Knowledge	31
Chapter 3	
Research Design and Methods	34
3.1 Aim and Objectives	34
3.2 Methods	34
3.2.1 Sampling Strategy	35
3.2.2 Sample Size	35
3.2.3 Data Collection.....	35
3.3 Data Analysis	35
3.3.1 Data Sources	35
3.3.2 Practical Considerations	36

3.3.3 Implications and Contributions to Knowledge	36
Chapter 4	
Data Analysis.....	37
4.1 Introduction.....	37
4.2 Preparation and Familiarization of Data	37
4.3 Generating Initial Codes.....	37
4.4 Searching for Themes	39
4.5 Themes Review and Themes.....	39
4.6. Ensuring Analytical Rigor and Trustworthiness	40
4.7 Chapter Summary	41
Chapter 5	
Findings and Discussion.....	42
5.1 Introduction of Empirical Findings.....	42
5.2 Thematic Analysis: Overview Findings.....	42
5.2.1 Theme 1: Catalytic Adoption and Integration Trajectories	42
5.2.2 Theme 2: The Duality of Technological Empowerment	43
5.2.3 Theme 3: Dynamics of Emergent Cumulative Risks and Ambiguity	45
5.2.4 Theme 4: Change of old Entrepreneurial Processes.....	46
5.2.5 Theme 5: Ecosystem Adaptation and Institutional Response	48
5.3 Theoretical Discussion of Integrative.....	49
5.3.1 Re-generating Effectuation Theory in AI-Mediated Situations.....	49
5.3.2 The Resource-Based View of AI-Augmented Ventures	49
5.3.3 The Lean Startup Methodology Re-examined	50
5.3.4 Innovation Diffusion in Fast-Changing Technological Environments	51
5.4 Critical Analysis: AI-Augmented Entrepreneurship: A Theory.....	51
5.5 Limitations of the Current Analysis.....	52
5.6 Chapter Summary	52
Chapter 6	
Conclusion and Implications	54
6.1 Introduction.....	54
6.2 Synthesized Theoretical Implications.....	54
6.2.1 A Theoretical Approach to Augmented Entrepreneurial Agency	54
6.2.2 Restarting Entrepreneurial Resource Orchestration.....	55
6.2.3 The Metamorphosis of Entrepreneurial Learning.	56

6.2.4 AI-Augmented Entrepreneurship with Ethical Underpinnings	57
6.3 Practical Implications on the Ecosystem Stakeholders	57
6.3.1 Guidance for Non-Technical Founders	57
6.3.2 Suggestions to the Educators in the field of Entrepreneurship.....	58
6.3.3 Implications for Investors and Funding Institutions.....	59
6.3.4 Policy Considerations	59
6.4 Methodological Reflections and Limitations.....	60
6.5 Agenda for Future Research	61
6.5.1 Longitudinal Research on AI- Augmented Ventures	61
6.5.2 Projective Corresponding and Comparative Studies	61
6.5.3 Quantitative and Experimental Approaches	61
6.5.4 Development Projects Theory	62
6.5.5 Policy and Ecosystem Studies	62
6.6 Synthesis: Final Conclusion: The Future of AI-Enhanced Entrepreneurship.....	63
References	65
Annexure	
Research Questionnaire (Interviews)	74

List of Tables

Table 4.1: Exemplar Initial Codes and Illustrative Data Extracts	38
Table 4.2: Final Thematic Framework.....	39
Table 5.3: Generative AI Adoption Trajectories Among Non-Technical Founders	42
Table 5.4: Typology of Emergent Risks in AI-Augmented Entrepreneurship	45
Table 5.5: Traditional RBV versus AI-Augmented RBV in Entrepreneurship	50
Table 6.6: Traditional vs. AI-Augmented Entrepreneurial Learning.....	56

List of Figure

Figure 5.1: The Evolving AI Tool Stack in MVP Development	43
--	----

Chapter 1

Introduction

1.1 Background of Study

The speedy innovation of generative artificial intelligence (AI) has begun to change the manner in which business is conducted, especially in the early stages of venture development over the last few years. The introduction of sophisticated models like ChatGPT, Midjourney, and GitHub Copilot allowed non-technical founders to do work previously done by people with specialized knowledge of programming or software engineering or design (Nicholson, 2024). Such technologies have made the barriers to entrepreneurship far lower by automating a large range of technical tasks writing code and generating marketing content, developing a visual prototype, and design resources (Lu et al., 2024). Therefore, generative AI applications are transforming the process of conceptualization, development, and experimentation of new projects in their initial phases.

This change is especially noticeable in the development of Minimum Viable Product (MVP) a more simplified variant of a product that can enable startups to test their assumptions, obtain user feedback (Lortie et al., 2025), and repeat this process to arrive at the market fit. MVP development is one of the most resource-intensive and critical phases of the entrepreneurship. Historically, it has involved working and investing a lot of technical proficiency, groupwork among co-founders, who have different skills, or outsourcing to development teams which uses a lot of time and costs ((Puranik, 2025; Thorsten Ries, 2025) Conversely, generative AI systems have now allowed business people with little technical expertise to create code snippets, wireframes or design mockups that are so realistic as prototypes. The democratization of the primary innovation process has transformed the concept of the individuals capable of becoming founders and how business concepts can transform into real products.

The controversy of non-technical founders is not recent in academic and practitioner literature. Conventionally, the effectiveness of technology-driven startups was believed to be determined by the balanced founding team, i.e. the combination of a business-oriented founder with one or multiple technical experts, who were supposed to develop the product (Hill et al., 2024). However, non-technical founders were considered to be disadvantaged since in most cases, they did not have the level of understanding of programming to translate the conceptual business ideas into the operational digital

products. The resulting skills shortage led to the use of technical co-founders or third-party developers, providing additional complexity and expense. Consequently, the lack of technical competencies was often mentioned as one of the primary reasons of failure in early-stage digital startups (Hagemann, 2023).

This historical constraint however is starting to dissolve with the high rate of integration of generative AI tools (Alalaq, 2024). Non-technical founders are now able to use AI-driven systems to address the gap between the notion of the concept and its execution. As an example, ChatGPT can be used by a founder to create backend code, Midjourney can create user interfaces or branding content, and GitHub Copilot can create lines of code that are functional in nature, suggesting them automatically (H. Liu et al., 2025). These AI systems serve as virtual partners and can facilitate fast prototyping and allow the process of experimentation to be iterative and does not need exceptional knowledge of programming. Consequently, it allows founders to experiment with several variations of the same product in less time, lower the cost of experimentation, and proceed to validation with a significantly faster pace than it was previously.

This change brings a novel paradigm to entrepreneurship - the paradigm of creativity supported by AI and technical freedom (Townsend & Hunt, 2019). It breaks the long-held belief that software-based innovation requires technical expertise as a precondition. Rather, now to some degree the success of a founder hinges on their capacity to incorporate and coordinate AI instruments to the attainment of business results. According to (H. Liu et al., 2025), the intelligent application of generative AI at the initial phases of product development is a paradigm of enhanced innovation, in which AI will not entirely cut human creativity but will enhance it by offering novel opportunities to design in a short period, be able to iterate and make decisions.

Although this change is encouraging, it also brings a number of crucial questions which are under-researched in the current literature (Ngwenyama & Rowe, 2024). Though there are previous studies on the role of AI in entrepreneurship, a majority of the studies have concentrated on its use in the marketing, analytics, and operational efficiency (Kraus & Baumann, 2024). Much less focus has been on the impact of AI on the very procedure of venture creation, in particular how founders generate, develop, and test new products with the help of generative technologies. Besides, the practical experiences of non-technical founders that use such tools extensively are not well documented. There is not much information on how they cope with the challenges of working with AI, how the work processes evolve, what skills and competencies they are required to acquire, and

what risks can arise in the process, overreliance, ethical concerns, and the lack of product originality are possible.

Theoretically, this gap can indicate that the current models in the field of entrepreneurship, including the Lean Startup methodology (Kott et al., 2025), the Effectuation Theory (Sarasvathy, 2003), and the Resource-Based View (RBV) (Barney, 1991b) might be reconsidered in the context of AI-based innovation. The Lean Startup model, as an example, is concerned with continuous iteration and learning using MVPs; generative AI could enable this inspections cycle to be much shorter, a so-called build-measure-learn. Likewise, Effectuation Theory, which is concerned with the way business people behave when under uncertain conditions with the help of the available resources, could be redefined to incorporate AI as an active, accessible mean that increases the ability of the founder to act. The RBV framework is also put in new perspectives with access to generative AI now becoming an intangible resource that can be part of the strategic capability of entrepreneurship, whether previous technical capital has been secured or not.

Regardless of these theoretical opportunities, limited empirical evidence is available on the operationalization of these tools by non-technical founders themselves (Stjernfeldt et al., 2025). The discussions that are already in place are usually abstract, speculative, or individual case studies as opposed to systematic and in-depth studies. It is urgent to comprehend the real-life experience of founders who begin to integrate AI into their processes actively and how they plan, what challenges they face, and how this innovation transforms their vision of innovation and control. This understanding may indicate how AI actually empowers non-technical entrepreneurship or simply changes the dependency of human programmers to non-transparent technology (MENIS-MASTROMICHALAKIS, 2024).

Moreover, the increased pace of the generative AI uptake creates novel risk and unpredictability. To illustrate, the intellectual property or copyright issue might be encountered by the founders who use AI-generated content, especially when utilizing publicly trained models (Patel et al., 2024). The possible problems of the data privacy, ethical design, and quality assurance also exist because sometimes AI-generated output may include errors or biases. Moreover, even though generative AI can be used to generate fast outcomes, it can also promote superficial validation when founders assume that the lack of difficulty in developing a product means that the product is fit to the market. Therefore the benefits are high as the process has been made faster, cost-effective

and more accessible but they are also met with serious challenges that have to be empirically explored to make innovation practices sustainable (Sipola et al., 2023).

The changing ecosystem of AI-driven entrepreneurship has implications on more comprehensive social and economic systems (Usman et al., 2024). The access to innovation is also enhanced by generative AI because fewer technical obstacles are created, so that non-technical (marketing, design, or management) people are involved in the technology creation process. Such democratization can result in an explosion of micro-entrepreneurship and the formation of startups, especially in the emerging markets where technical talent is scarce or expensive. Nevertheless, it may also increase rivalry and provoke a discussion of quality of products, oversaturation and homogenization of innovation owing to reliance on analogous AI models (Usman et al., 2024).

To conclude, fast proliferation of generative AI is changing the way in which products are constructed as well as by whom they are constructed, how they study, and what they view as fundamental to their success (Manu, 2024). Non-technical founders who previously had to work with technical dependencies are now operating in a different world of AI augmented creation with the borders between ideation, design and implementation becoming more and more obscured. This transformation is both technological transformation and cognitive transformation in the entrepreneurship industry with focus on flexibility, innovation and online literacy rather than the technical expertise of the epoch (Reaves, 2019).

Nevertheless, these changes have not been fully comprehended scholarly. Although the current research has recognized the overall effect of AI on business (Bawack et al., 2021) and innovation, the micro-process by which individual founders incorporate and decipher AI tools at the initial phase of venture creation has been under-reported. Subsequently, research that covers such phenomena through the lens of individuals involved directly into the entrepreneurial process is in need (Suddaby et al., 2015).

Thus, the current research paper attempts to carry out qualitative research concerning the way non-technical founders use generative AI features to assist them in the development of MVPs (Modgil et al., 2025). In particular, it aims to reveal how these pioneers think about their work using AI tools, what advantages and limitations they face, and how they make decisions and improve the process of iteration on that basis. The research hopes to make contributions to both theoretical and practical fields of

entrepreneurship, offering evidence-based information regarding the processes, possibilities, and constraints of venture formation based on AI support.

By doing so, the study will clarify why the generative AI will transform entrepreneurial competencies, redefine resource setups, and hasten innovation cycles in the digital age. It will also help to learn the wider ramifications of the AI democratization not only as a technological achievement (Costa et al., 2024), but also as the socio-economic phenomenon that alters the very principles of entrepreneurial activity.

1.2 Problem Statement

The fast advance of generative artificial intelligence (AI) has presented revolutionary possibilities in the field of entrepreneurship, especially to non-technical founders who had previously encountered serious challenges in the transformation of ideas into digital products that could be built (Sedkaoui & Benaichouba, 2024). Traditionally, people who did not have knowledge of programming or design have found it difficult to convert a business idea into a working application or prototype. This is because generative AI systems like ChatGPT, Midjourney and GitHub Copilot can now be used by these entrepreneurs to automatically generate code, graphic designs and marketing content. Not only does this decrease the barriers to entering the world of entrepreneurship, but it also holds the promise of democratizing the process of innovation by removing the need to rely on technical co-founders and expensive development teams (Neto et al., 2024).

In spite of this potential, there is little academic knowledge regarding how non-technical founders put generative AI into practice when it comes to developing Minimum Viable Products (MVPs) (Bratsis, 2024). Although the current literature in the digital entrepreneurship field has already addressed the use of AI in the marketing sector, analytics, and customer interactions, not much has been reported of its application in the initial phases of venture forming where the ideas are first converted into testable products. Vital phase of experimentation and validation, MVP development is highlighted in lean startup practices; however, the role of AI in the given practice is still an abstract aspect of research without empirical investigations. The lack of knowledge inhibits the development of theory and practice, as entrepreneurs and scholars are not quite aware of how AI changes the dynamics of startups, how they change resource structure and how they change the innovation processes (Townsend et al., 2025).

Furthermore, the belief in the generative AI automatically boosting efficiency and innovativeness is a relatively anecdotal one. Although the acceleration of prototyping

with the help of AI and the cost factor is gaining more and more enthusiastic supporters, there is little empirical research on the unintended impacts of implementing this technology (Channi et al., 2025). Non-technical founders can struggle to remain creative, original, and technically viable when they base their outputs on the heavy reliance on AI-generated work. Knowledge of code or engineering illiteracy may make them susceptible to overuse of artificial intelligence (AI) applications or misinterpret the automated suggestions or lack the ability to integrate AI-generated components into scalable product development. These limitations put some questions as to whether generative AI is indeed empowering founders or just leading to new dependencies in the name of technological independence (Wach et al., 2023).

Another critical problem is that, with the invention of products becoming more democratic with the help of AI, another form of disparities and danger appears (Manheim & Kaplan, 2019). Founders of higher prompt-engineering capability may have returns to scale with others, the more accessible to them are high-quality AI models, or the greater their higher prompt-engineering capability. Furthermore, the ethical and legal uncertainties, i.e., the issue of intellectual property, bias in the information, or novelty of the material also complicate the entrepreneurial component of AI utilization (Channi et al., 2025). The non-technical founders have no technical capability to determine these risks and, therefore, inadvertently expose the companies to a risk of failing to do so or losing popularity.

In theory, this scenario portrays a major gap in the existing entrepreneurial models. Algorithms have not been taken into consideration in entrepreneurial affairs, and traditional models like the Lean Startup (Kott et al., 2025) and Effectuation Theory (Sarasvathy, 2003) were developed pre-generative AI. An example of the Lean Startup is the build-measure-learn cycle, which presupposes human-centred iterations, but with AI, it is now possible to create a prototype and simulate feedback in near-real time. Likewise, Effectuation Theory perceives entrepreneurial action as a creative recombination of resources at hand; however, AI is a whole different type of a means a smart agent that can be used to generate ideas, designs, and technical solutions on its own. These theoretical oversights are subject to revised empirical results on the application of generative AI by non-technical founders to influence entrepreneurial decision making, creativity, and resource coordination (Gupta, 2024).

Moreover, the experiential aspect of the non-technical founders using AI has not been studied. The focus on founders cognition, learning and sensemaking in the face of

uncertainty is common in the literature of entrepreneurship (Chu et al., 2025). But there is little information regarding the way AI can change these psychological and cognitive processes. The answer to the question on what it feels like to be a non-technical entrepreneur working with AI tools and feel empowered and dependent is not answered. These lived experiences can help not only to understand the complexity of AI-driven entrepreneurship but also to shape educational institutions, incubators and policymakers in the creation of support systems according to the realities of modern founders (Carayannis & Von Zedtwitz, 2005).

Substantially, the limits of the usefulness of AI are also not understood empirically. Although AI can create working prototypes almost immediately (Truss & Schmitt, 2025), founders still have challenges converting the prototypes to market-ready products. To the point of lost engineering factors, scalability, integration, and long-term maintainability, the dependency on automated generation can cloud important engineering factors. As a result, the distance between prototype development and sustainable product development can, in fact, become even bigger among the founders that are not skilled enough to assess and perfect AI-generated work (Teutloff, 2025).

Practically, such ambiguity places startup ecosystems in uncertainty on how best they can utilize AI technologies (Talebi et al., 2025). The need to use AI tools among founders is actively promoted by incubators, investors, and startup mentors, but there is a lack of explanations of how to implement it strategically. On the same note, teachers who design entrepreneurship programs do not have evidence-based models to teach AI-enabled innovation. The ecosystem will otherwise encourage shallow adoptions, as opposed to substantive incorporation of AI in venture creation, unless empirical research is conducted (Alabi, 2025).

Thus, the research problem that is critical in this study is as follows: even though the use of generative AI among non-technical founders increases (Rahouli, 2025), there is a lack of empirical knowledge of how it is used by these founders to develop MVPs, what challenges emerge, and how the process changes the dynamics of entrepreneurial innovation. To solve this issue, a qualitative study is needed in detail that will capture founders experience, interpretation, and adaptation strategies (Khuan et al., 2023).

This study will result in an addition to the literature and practice by exploring how generative AI transforms the process of creating a product and establishing an initial stage of innovation. In theory, it will expand the modern entrepreneurship models to include

the role of AI as a creative partner, as opposed to a utility. In practice, it will also give practical advice to non-technical founders, start-up incubators and policymakers about how they can use AI in a responsible and sustainable manner in the context of small world startup settings.

1.3 Research Questions

1. What does non-technical founders mean to use generative AI tools in the development of the MVP?
2. How does the issue of generative AI transform the problems non-technical founders have traditionally had when developing early products?
3. What benefits and issues do the non-technical founders feel about using generative AI to create a prototype quickly?
4. What is the impact of relying on generative AI on decision-making, rate of iteration, and seeking product market fit during early-stage ventures?

1.4 Importance and Relevance of Research

The current research has a high level of significance and relevance since it explores a new unexplored intersection of generative artificial intelligence (AI) (Hassan et al., 2024) and entrepreneurship, specifically non-technical founders who seek to use AI tools to fast-track the development of a Minimum Viable Product (MVP). The introduction of AI to the practice of entrepreneurship is a radical change to the concept and implementation of innovation. Nevertheless, the scholarly literature has not adequately investigated how generative AI transforms the process of early-stage venture creation especially in relation to accessibility, resource use and decision making. Filling this gap, the study will add to a more detailed picture of how digital technologies transform the nature of entrepreneurship and its results within the contemporary startup environment (Elia et al., 2020).

Academically, this study contributes to the expanding body of knowledge on the topic of digital entrepreneurship and lean startup practices by giving a new dimension to the concept of AI as a strategic facilitator and not a support mechanism. One of the main features of the existing theoretical frameworks, the Lean Startup (Ries et al., 2025), Effectuation Theory, and the Resource-Based View (RBV) are focused on human-oriented experimentation and resource coordination. This paper builds on these theories by showing how generative AI can be deployed as a dynamic, non-human resource and increase entrepreneurial capability. It makes AI a part and parcel of the overall set of resources of the founder - able to produce prototypes, simulate user feedback, and

facilitate quicker iteration. The theoretical elaboration enables the study to give a background on the topic of entrepreneurship during the age of automation and intelligent systems (Giuggioli & Pellegrini, 2023).

Moreover, the methodological applicability of the study is the fact that it provides a qualitative investigation (Christou, 2023), which can be used to study the lived experiences, perceptions, and practices of non-technical founders. Quantitative research can be used to observe patterns or correlations; however, it frequently fails to consider the dynamics that are complex and context-specific to how founders can interact with AI tools in the real world. Through interviews and analyses of the case study, this research plan to uncover subtle details about the opportunities, constraints, and paradoxes encountered by entrepreneurs in innovation processes mediated by AI. Such lessons will assist in filling the knowledge gap between theoretical knowledge and hands-on realities, with an empirical dimension to a new field of research (Altmeyer et al., 2020).

Regarding the practical implications, the study has useful implications on various stakeholders in the startup ecosystem (Roundy, 2022). To non-technical founders, the results will be enlightening on the best approaches to utilize generative AI in product ideation and prototyping as well as being instructive on possible pitfalls and dependencies that can be encountered when over-relying on them. To the incubators, accelerators, and entrepreneurship educators, the research will give a better insight on how to develop training programs and support structures that will match the dynamic nature of the technological environment of venture creation. Equally, this research can be useful to investors and policymakers as it informs them of the nature of AI-enabled ventures that can be sustainable, ethical, and have the ability to grow in competitive markets (Bickley et al., 2025).

Besides, the study is part of the general discussion about technological democratization and policy of innovation. With its example of how generative AI reduces technical barriers (Costa et al., 2024) and expands the range of people who can become entrepreneurs, the work contributes to further debates on inclusivity and fair access to innovation. It also poses significant questions on ethics, creativity and the future of human-AI business partnership. The relevance of the findings of this study can therefore be utilized in the policy-making processes of the society by enabling the governments and institutions to develop policies that promote responsible adoption of artificial intelligence and promote innovation and economic development (Costa et al., 2024).

Chapter 2

Literature Review

2.1 Generative AI in Entrepreneurship

Generative artificial intelligence (AI) is one of the novel radical innovations that have transformed entrepreneurial processes in recent years due to the fact that the creative, cognitive, and technical tasks that had been previously considered the exclusive competencies of humans are now carried out by AI (Roth et al., 2015). Contrary to the previous automation models, which could be used to complete repetitive or routine tasks, generative AI functions in the sphere of creativity and solving problems, allowing creating text, code, images, video, and design solutions with a minimum of human intervention. The change has far-reaching effects on the sphere of entrepreneurship, where the ability to be creative, resourceful, and develop products fast becomes the key to competitiveness. ChatGPT, GitHub Copilot, DALL·E, Midjourney, and Runway ML represent only a few examples of how founders currently can turn abstract concepts into real things in a fraction of the time it used to take (Nicholson et al., 2024).

The ability of generative AI to aid with ideation, design, and prototyping is changing the ideation and designing of the startup, particularly with non-technical people (Rahouli, 2025). ChatGPT and other large language models (LLMs) may, for example, write business plan drafts, user manuals, a pitch deck, or even code snippets. Midjourney and Canva are visual generation tools that can be used to produce product mockups, marketing concepts and user interface concepts. GitHub Copilot, an AI-assisted tool that was trained on billions of lines of open-source code, assists founders in creating functionality in their code by filling in lines of code and completing them automatically. This amalgamation of tools allows the non-technical founders to reduce the distance between idea and implementation, thus, shortening the distance between idea and prototype creation. Consequently, the conventionally resource-intensive path of creating a Minimum Viable Product (MVP) is available, quicker, and loser in specific technical expertise (Kraus et al., 2024).

It enables people who are not engineers or creative, in other words, marketing, management, and design, to participate in product development and innovation (Oliveira et al., 2024). Such democratization may result in the growth of entrepreneurial action and grow inclusivity, especially in areas or industries where technical expertise is weak. Moreover, the simulative nature of AI, as well as the ability to forecast design results and

create huge volumes of possible solutions, expedites the iterative cycle, which is the hallmark of contemporary startup practices, including the Lean Startup methodology.

Nevertheless, even with such encouraging trends, the scholarly debate around generative AI in entrepreneurship is still very abstract and hypothetical. The literature that is currently available is mostly dedicated to the possible benefits instead of results that have been proven empirically (Chhabra & Patel, 2025). Whereas scholars have theorized generative AI as a resource of augmentation to boost human creativity and efficiency others have believed that it is a paradigm shift that can redefine the very essence of entrepreneurship. The question that remains unanswered, thus, is whether generative AI is merely the improvement of the already existing workflows or a new entrepreneurial logic entirely, with its hybrid human-machines creativity (Brandthav & Elzaki Adam, 2025).

An emerging body of literature is starting to consider how generative AI can transform not only the nature of the entrepreneurial process itself, but also form a new definition of it (López-Solís et al., 2025). Historically, three primary resources such as technical capability, financial resources, and time limited innovation and product development. Without big technical teams' entrepreneurs are now able to test hypotheses, faster and pivot effectively. Such an ability is highly consistent with the ideas of agile and lean methodologies where fast feedback and learning are the keys. Nevertheless, other researchers also warn that speed and automation might not necessarily result in quality or sustainability (Edgington & Kasztelnik, 2024). The dependence on the outputs of the AI may lead to cosmetic validation, ethical breaches, or substandard products on a saturated market.

In theory, with generative AI, there is also the overlap with the existing theories of entrepreneurship. An example is the Effectuation Theory (Zahra et al., 2024) which states that entrepreneurs begin with what is in place and co-creates opportunities in a process of experimentation. The available means is extended by generative AI through an imaginative ability through computer and technical resource accessible immediately. On the same note, in the Resource-Based View (RBV), AI can be considered an intangible but strategic resource that augments the founder to create unique and inimitable capabilities. Nevertheless, researchers believe that these advantages depend on the quality of implementation of AI tools by founders into their mental and business processes (Qin et al., 2025). The discrepancy between the capabilities of AI and human

creativity can contribute to inefficiency or moral dilemmas, which supports the idea that entrepreneurs should learn to adapt to new technologies and become digital.

The implementation of generative AI also presents serious concerns even though this is a promising technology (Uddin et al., 2025). To begin with, we have seen the rise of the intellectual property and originality problem as AI-generated content can usually rely on large volumes of data that contain information under copyright. This gray area will cause confusion on the ownership of AI-generated outputs. Second, the ethical aspects of AI use like bias, misinformation, and the openness of the decision-making processes have not been addressed (Le et al., 2025). In case of startups that do not have many resources or legal advice, these risks can become major operational and reputational risks. Third, generative AI might lead to unintentional strengthening of homogeneity in innovation; when a large number of founders use the same AI model, their ideas, design, and products might gravitate towards similarities, which decreases the variety in the entrepreneurial ecosystems (Secundo et al., 2025).

Moreover, the psychological and cognitive aspect of the implementation of generative AI in business is also present (Chen et al., 2024). The entrepreneur is redefining his/her role as the key creative and decision-making agent. It is high time that founders learn to co-exist with intelligent systems, juggling between the human intuition and algorithmic suggestions. New cognitive alliance can be more efficient but can also lead to dependency whereby the entrepreneur lacks a chance to develop skills and get an experience. This kind of dynamics makes basic questions when it comes to the changing identity of the entrepreneur in an age of AI-enhanced creation (Hill et al., 2024).

2.2 Non-Technical Founders and MVP Development

Historically, non-technical founders have encountered significant problems with making and growing digital ventures, in part due to the fact that they do not have the technical background to convert business ideas into workable online products (Hill et al., 2024). In the classic type of startup, these founders tend to be overly dependent on technical co-founders, external contractors or incubators to provide access to engineering and design expertise needed to build up prototypes or Minimal Viable Products (MVPs). Such dependencies often create lengthy development periods, increased costs and lack of understanding between business vision and technical implementation. The lack of understanding between non-technical entrepreneurs and their development partners may slow down the product iterations and reduce adaptability to change based on market response (Edgington & Kasztelnik, 2024). As a result, the ideation and business planning

agility of the non-technical founder is not necessarily accompanied by the corresponding product creation agility.

The MVP development is the base of the continuous learning process, which is based on the iterative cycle of build–measure-learn within the framework of the Lean Startup (Teresa Ries, 2025). It aims at testing ideas rapidly and inexpensively using early user feedback. Non-technical entrepreneurs, however, are often unable to effectively apply these tenets since even the build stage is still reliant on limited technical resources. Although they can be excellent in conceptual innovation and market awareness, they will not be able to experiment at high rates and volumes because of their inability to code and design. Subsequently, most good ideas are stagnated in the implementation process hence they are not validated on time or pivoted (Ateeq et al., 2025).

The generative AI, in this regard, has provided a unique chance to the non-technological founders to cut through historical obstacles. A ChatGPT, Midjourney, or GitHub Copilot also allow founders to draw wireframes, mockups, or even functional code with no direct technical knowledge (Y. Liu et al., 2025). Such AI systems are more like collaborative partners where founders can simulate user interfaces, create marketing content or even automate the logic in the back-end. Enabling this type of autonomous experimentation, generative AI will shrink development cycles, lower the financial risk, and increase the creative freedom of the founder. What it has brought about is a possible paradigm shift in the early-stage innovation (ERÇAKAR & KAYMAK, 2024), where it is no longer just a few technologically-bottlenecked-speed and adaptability that is available to a wider range of entrepreneurs.

A number of researchers believe that such technological empowerment can alter competencies needed to be a successful entrepreneur. Rather than requiring strong technical expertise, the future founders might require expertise in timely engineering, integration of AI tools, and iterative design thinking (Neto et al., 2024). These literacies have the potential of becoming as essential as coding used to be, and the shift is to not build but to create with AI. Generative AI, hence, is a cognitive revolution, as well as the technical revolution (Asrif & Fatmi, 2024), altering the way entrepreneurs can envision the process of solving problems, acquiring resources, and recognizing opportunities.

Although this has been promised, little has been empirically studied about the actual way non-technical founders use AI to develop MVPs (Berggren, 2025). The majority of available evidence is anecdotal or isolated case studies, which are frequently defaulted by the media or practitioner publications instead of scholarly articles. It has not been

systematically investigated how founders decide and integrate various AI tools, what they do to address the weakness of these systems, and what the integration of AI contributes to the quality and sustainability of resulting MVPs. Moreover, generative AI can hasten the process of product development, but also mask the technical issues. Outengineered founders may encounter the challenge of examining AI-generated code and designs in terms of scalability, performance, or security (Babu & Kishore, 2025). Such a knowledge deficit may result in long term inefficiencies or a technical debt that may not be evident until the ventures grow in size.

There are also new dynamics in the field of relations and organizations with the transition to AI-assisted entrepreneurship (Ganuthula, 2025). Conventionally, non-technical founders would enlist the services of developers, designers, or agencies to offset their lack of ability. When generative AI is introduced, these founders will be enabled to feel some tech independence, but they might lose the collaboration and mutual learning. Although AI may be able to take over certain technical positions, it cannot entirely duplicate the judgment of a person, his or her imagination, or situational insight. This brings up concerns as to whether AI indeed replaces technical expertise or only temporarily supplements it. According to some researchers, such a hybrid model can be the best option: Founders prototype and explain ideas with the help of AI and optimize and scale the developed products with the intention of technical experts (Lin et al., 2025).

The other important consideration is based on the psychological and learning aspect of entrepreneurship (Zhu & Zhang, 2022). Although, historically, non-technical founders can develop useful technical literacy by working with specialists, using AI might restrict this learning experience. Failure to undergo such interactions by the founders can lead to short-term efficiency at the cost of long-term capacity construction. Furthermore, reliance on AI can affect the self-image and self-confidence of founders, as it can provide them with a feeling of empowerment when facing the risk of losing control of the technological basis of their ventures (Kachmar, 2024).

In a bigger sense, the adoption of generative AI in MVP creation is strategically important to startup environments (Marks, 2024). It complicates the conventional approaches to team structure, according to which the presence of complementary abilities between technical and business founders was considered the condition of success. As AI would eliminate the need to bring on board technical co-founders, the founding team can be more diverse in terms of background and expertise. This may democratize entrepreneurship but may also be something to be worried about in terms of

overconfidence because AI-generated prototypes will be able to give the perception of progress without necessarily being tested in the market (Ling et al., 2024).

2.3 Theoretical Framework

The conceptual framework that the paper relies on is the explanations of how non-technical founders introduce the concept of generative artificial intelligence (AI) into the process of creating Minimum Viable Products (MVPs) (Bratsis, 2024). This phenomenon is multidimensional and is related to technological, strategic, and behavioral dimensions, which is why the complexity of the phenomenon needs multiple theoretical perspectives. Some of the most applicable theories are Effectuation Theory, the Resource-Based View (RBV), the Lean Startup Methodology, and the Innovation Diffusion Theory (IDT). Collectively, these views allow understanding the data on how generative AI can change the behavior of entrepreneurs (Gupta, 2024), the use of resources, and the processes of innovation when developing a venture at an early stage.

2.3.1 Effectuation Theory

Effectuation Theory, first proposed by (Sarasvathy, 2001), suggests that entrepreneurs do not always begin with a predetermined goal or detailed plan. Instead, they act based on their existing means who they are, what they know, and whom they know and co-create opportunities through iterative experimentation. Rather than predicting the future, effectual entrepreneurs focus on controlling it by leveraging the resources at their immediate disposal. Within this framework, generative AI represents a powerful new “means” that expands the entrepreneur’s capacity to act creatively in conditions of uncertainty (Townsend & Hunt, 2019).

Non-technical founders, who traditionally face constraints in product development, can use AI tools such as ChatGPT or GitHub Copilot to compensate for their lack of coding and design expertise. In effectual terms, AI allows these founders to *start with what they have* their ideas, domain knowledge, and business insight—and use AI as an adaptable resource to rapidly generate outputs, test prototypes, and explore market opportunities. As (Sharma & Sengar, 2025) emphasize, effectuation thrives on flexibility and the willingness to experiment, both of which align closely with the dynamic, iterative nature of AI-assisted entrepreneurship. Therefore, from an effectual perspective, generative AI empowers founders to engage in affordable loss experimentation and incremental innovation without requiring predefined end goals or extensive technical capital.

2.3.2 Resource-Based View (RBV)

According to (Barney, 1991a), the Resource-Based View (RBV) is a model of firms as a bundle of resources (both tangible and intangible) which can produce sustainable competitive advantage when they are valuable, rare, inimitable and non-substitutable (VRIN). On the one hand, generative AI can be considered a strategic intangible asset that helps an entrepreneur gain efficiency, innovation, and differentiation (Ali et al., 2024). Nevertheless, AI has a certain impact on the competitive advantage, and its influence is determined by its integration and utilization.

At least to non-technical founders, AI enables access to functions, including code automation, generation, and content creation (Gadde, 2025), that were not available to them before. This is because, by integrating AI into MVP development processes in a strategic way, founders can realize cost efficiency and agility and convert a previously rare and valuable resource (technical skill) into a non-dense one. However, there is also a point of criticism by RBV: alone the resource (AI) is not enough to be successful. It has a strategic value when it is combined with complementary human skills, organizational learning and adaptive processes. That is, the AI-based technology per se is not the only factor that can create a sustainable advantage but rather an exclusive combination of AI utilization, entrepreneurial knowledge, and creativity. This perspective explains why learning about the process of managing, learning, and innovating with AI by non-technical founders is theoretically significant (Modgil et al., 2025).

2.3.3 Lean Startup Methodology

The Lean Startup Methodology, which was popularized by (Ries, 2011), focuses on the concepts of validated learning, fast moving, and reducing waste. The model focuses on the build-measure-learn cycle as the process according to which startups keep on improving their products by their customers. This can be directly improved through generative AI, which makes MVPs and hypothesis testing much faster and less expensive to develop. Using AI can also produce prototypes much faster, automate testing conditions, or even create virtual customers so that the feedback cycle becomes faster (Stige et al., 2024).

To non-technical founders, it is an ability that leads to a democratization of experimentation (Eberhagen, 2024). They will now be able to practice lean without the involvement of a vast technical team or off-the-shelf development teams. Furthermore, generative AI can reduce the amount of the so-called innovation waste by allowing founders to test ideas with minimal effort and commitment of resources. Nevertheless,

Lean Startup model also warns against false validation - founders are bound to make sure that AI-generated prototypes signify useful learning but not surface-level advancement. AI incorporation therefore increases the advantages and the opportunities of lean behaviors, which is why an empirical study of these dynamics is crucial to improving the process of methodology development in AI-based environments (Eberhagen, 2024).

2.3.4 Innovation Diffusion Theory (IDT)

The Innovation Diffusion Theory (IDT), which was introduced by (Tang & Zainal, 2024) is a theory that describes the processes through which new technologies are adapted and diffused among individuals and organizations. It outlines five likely variables that affect adoption that include relative advantage, compatibility, complexity, trialability, and observability. When applied to this study, IDT will shed light on the adoption and experimentation with generative AI by non-technical founders in the context of startup ecosystems (Eberhagen, 2024)

2.3.5 Integrative Perspective

Collectively, these four theoretical lenses provide a comprehensive framework for analyzing AI-enabled entrepreneurship (Davidsson & Sufyan, 2023). Effectuation Theory explains *how* founders creatively act under uncertainty using available means such as AI; RBV clarifies *why* AI can be a source of strategic advantage when effectively leveraged; the Lean Startup framework illustrates *how* AI accelerates validated learning and experimentation; and IDT captures *how and why* founders adopt and integrate these technologies within broader innovation ecosystems (Marinelli et al., 2023).

By combining these perspectives, the study acknowledges that AI-enabled entrepreneurship is not merely a technological shift (Ganuthula, 2025) but a multi-level transformation encompassing individual cognition, resource strategy, organizational process, and social diffusion. Exploring these interconnected dimensions is therefore theoretically significant, as it provides a richer understanding of how generative AI reshapes the entrepreneurial process, especially for non-technical founders navigating the challenges of MVP development in the digital era (Kubinski & Schuemann, 2024).

2.3.6 Key Debates and Controversies

Among the core controversies in the modern entrepreneurship study is the issue of whether generative artificial intelligence (AI) is an enabler of entrepreneurial capability or a disruptor of the latter (Edeh & Kappner, 2025). Although individuals who see AI as a democratizing power that empowers non-technical founders insist on AI, those who oppose it have cautioned that excessive use of AI will lead to undermined creativity,

technical illiteracy, and other ethical and operational weaknesses. Such a paradox of empowerment and dependency is at the core of the contemporary debates about AI-backed entrepreneurship (Jain & Pandey, 2025).

2.3.7 AI as an Enabler of Inclusive Innovation

The proponents of generative AI believe that it reduces barriers to entry and makes the entrepreneurship more inclusive (Wach et al., 2023). This democratization can expand the number of entrepreneurs, create equality of opportunity, and make more diverse in the business ideas and ventures. Specifically, in the case of non-technical founders, generative AI is a historical chance to implement the ideas that would demand considerable technical or financial investments (Krause, 2023).

Also, according to its advocates, AI does not displace but complement human creativity. It allows founders to think at a higher order with greater strategic thinking, customer discovery, as well as problem-solving because it does not require them to handle repetitive or time-intensive technical work. In this regard, AI is more of a partner than a replacement of an entrepreneurial agency. According to (Jain et al., 2025), this kind of augmentation provides the opportunity to be more productive, quicker in terms of iteration, and greater in terms of innovation. Based on the Lean Startup approach, AI tools assist the founders reduce build-measure-learn cycles, thereby increasing the speed of validated learning and enhancing responsiveness to market feedback (Bandini, 2024).

2.3.8 The Disempowerment Argument

In spite of these benefits, opponents argue that there would be a sense of entrepreneurial disempowerment as a result of increased reliance on generative AI. The excessive use of AI software can lead to what the researchers refer to as superficial technical literacy, in which developers are able to create digital artifacts without knowing their logic or constraints (Yeh et al., 2024). Such shallow competence may provide immediate productivity but may compromise in the long-term problem-solving and innovation ability. When founders lack the expertise to evaluate or modify the work of AI-generated products critically (Teutloff, 2025), the outcome is a vulnerable, ethically dubious or inept-to-scale product.

In addition, it is also feared that AI-powered entrepreneurship may water down creativity by equalizing design and innovation trends (Özsungur, 2024). Due to the fact that the generative AI models are trained on the pre-existing data, their output is likely to possess patterns, biases, and conventions that were present in the data used to train them. This can result in homogenous products and redundancy of ideas which compromises the

originality of entrepreneurship activities that have been synonymous to entrepreneurship. Opponents fear that with the same AI platforms and prompts utilized by a greater number of founders, there can be less product differentiation, resulting in a convergence of creativity within the startup ecosystems (Thomas, 2020).

2.3.9 Ethical, Legal, and Moral Challenges

The ethical and ethical aspects of AI-assisted entrepreneurship constitute a key point of disagreement, too. The confidentiality of information, ownership of data, and the right to intellectual property of the AI-generated content is not resolved (Yeh et al., 2024). Many generative models are trained with very large amounts of publicly available or commercially obtained data and it is not clear where authorship and ownership diverge. As an example, AI-written code can be accidentally copied, and startups are vulnerable to a legal interference. On the same note, AI-generated designs or marketing content can be biased or otherwise inappropriate based on training data (Alam, 2025), which is ethically questionable regarding fairness, transparency, and accountability.

Another emerging concern is privacy whereby founders might key in sensitive business or user data in AI systems where the data is stored and processed elsewhere (Mbah, 2024). The practices may result in disclosure or application of proprietary information that is unintended or abusive unless there are strict governance structures in place. It is aggravated further by the lack of uniform ethical principles regarding the implementation of AI in entrepreneurship.

2.3.10 The Question of Sustainability and Scalability

The other issue that has not been resolved yet is the sustainability and scalability of AI-generated prototypes (Kumari, 2025). Although AI tools can be used to create MVPs quickly, their sustainability in the long run is not guaranteed. The construction of an MVP with AI can speed up the initial verification step, but converting the prototype into a product that is sustainable and scalable can involve multiple, demanding engineering, integration, and testing processes that, nevertheless, can still require technical skills. The founders who are highly dependent on AI can easily attain the first-mover validation and face challenges in the transition to production systems and obtaining investor confidence. According to scholars, MVP validation is a process that is time-based and it involves more than technical finesse and involves a high level of engagement with customers, which cannot be wholly automated by AI.

This poses important questions as to whether AI generated MVPs are really validated learning or a form of pretense of progress. The difference is essential, with premature

validation on the grounds of AI-generated artifacts, and thus, false confidence and resource misalignment are likely to occur. What is more, investors and incubators might require new measures of AI-enabled startups since previous metrics of technical skill or progression might not hold any relevance any longer (Azizi et al., 2025).

2.3.11 Balancing Opportunity and Risk

Such persistent controversies show the two-facedness of generative AI in the business environment as an opportunity-generating tool as well as a potentially dangerous one. The dilemma to academicians and professionals is to balance between technological empowerment and human control. On the one hand, AI increases the involvement of entrepreneurs and promotes the rapid speed of innovations; on the other (Usman et al., 2024), it creates a cycle of dependencies, which can erode the creative process, learning, and moral responsibility.

Empirical studies are thus necessary to transcend these two extreme positions and to address how the tension comes into actual play in entrepreneurial practice in the real world (Bull, 2008). Comprehending the ways in which non-technical founders can maneuver such complexities, to capture the advantages of AI as the dangers are reduced, may offer a concrete understanding of how the relationship between humans and intelligent technologies in business-making is changing.

2.3.12 Gaps in Existing Knowledge

Though the academic as well as practitioner interest of artificial intelligence (AI) and entrepreneurship has increased significantly over the last several years (Obschonka & Audretsch, 2020), there is a certain gap in literature that examines the immediate effect of artificial intelligence on product development process, especially to non-technical founders and the speed of Minimum Viable Product (MVP) development. A significant part of the literature dwells on the use of AI on marketing, analytics, operations, or customer interaction, and the area of early product development remains largely uninvestigated (Kraus & Baumann, 2024). As a result, the impact of the generative AI tools on the initial stages of venture-creating involving the transformation of the idea into a tangible prototype is merely scattered and conceptual in nature.

The initial significant gap is that the practical implementation of generative AI in the context of non-technical entrepreneurs (Gupta, 2024) has little empirical investigation done. Although theoretical materials have described the possible AI application in the automation of coding, content creation, and design, the study of these topics in the context of startups has been conducted in a few studies. The existing literature is mostly of

anecdotal nature, as it is based on a few conspicuous cases or media coverage instead of critical scholarly research. Such absence of empirical support has led to hypothetical assertions regarding the usefulness of AI, and the aspect has left some fundamental issues open: How do non-technical founders incorporate AI into their workflows? What do you consider are the areas of MVP development that AI automation influences most?

The second and, by no means, less important gap is related to the human and experiential aspects of AI-enabled entrepreneurship. Although past researches in digital entrepreneurship are likely to focus on technology adoption, efficiency, and scalability, the lived experiences of entrepreneurs who have to handle new AI-based workflows have not been addressed (Raszke et al., 2025). The implementation of generative AI requires a re-arrangement of entrepreneurial capabilities, cognition, and decision-making. The non-technical founders are to learn to work with smart machinery, learn to interpret AI outputs and find the middle ground between automation and creative control. However, not much is known about what these people go through throughout such changes, what struggles they go through, the learning process they go through and the reliance they end up being on the recourses of technological systems. These experiential dimensions are very important in understanding the impacts of AI not only on business performance but also the cognitive and behavioral dimensions of entrepreneurial practice (Saura & Bužinskienė, 2025).

The third gap is associated with the fact that existing models are theoretically inadequate to expound the AI-mediated entrepreneurship to the full extent (Hammerschmidt et al., 2025). Other frameworks have been created in a more human-centric innovation context and include the Lean Startup methodology, Effectuation Theory, and the Resource-Based View (RBV). Generative AI contradicts these principles as it presents non-human agents who can generate creative and technical work independently. There are no empirical studies that unify AI into the concepts represented in these theoretical frameworks (Bawack et al., 2021), which restricts scholarly insights on how the entrepreneurial processes are changing with the era of smart automation. In particular, the impacts of AI on the change of the dynamics of experimentation, resource coordination, and opportunity generation are not clearly known. This conceptual gap limits the formulation of a logical conceptual model of the analysis of AI-enabled entrepreneurship (Davidsson & Sufyan, 2023).

Besides this, majority of the existing studies take quantitative or abstractive approaches and not detailed qualitative studies, instead focusing on macro-level trends of

AI acceptance. Although surveys and statistical analysis are valuable in terms of providing insight into trends in adoption (Steinhauser, 2025), they lack the detail of the founder-AI interaction, decision-making behavior and contextual factors that influence the use of technology. Since generative AI is a new phenomenon and is still evolving and multifaceted, qualitative research is necessary to reveal the subtle, real-world processes of how founders interact with these tools. This method may demonstrate the developmental practices, unpredicted effects, and how changing human creativity and machine intelligence are evolving in the field of entrepreneurship (Townsend & Hunt, 2019).

The other neglected sphere is the aspect of practical implications of the startup ecosystems, investors, and incubators (Greco, 2023). Since there are no empirical data regarding the impact of AI on the MVP development, it is not clear how the support institutions need to make changes to their programs and evaluation criteria. To take an example, the time and cost of prototyping might be reduced drastically by generative AI, which might require a redefinition of the traditional startup metrics in terms of development milestones or technical capacity. Likewise, investors need evidence-based knowledge when differentiating authentic innovation and superficial AI-based development. Such lack of knowledge prevents the fact that ecosystem actors can make informed decisions and help founders in the digital age (Secundo et al., 2025).

Lastly, the contextual gap in the comprehension of the way, in which AI-enabled entrepreneurship is realized in various settings (Davidsson & Sufyan, 2023), sectors, and levels of venture maturity, exists. Majority of the current discourse is based on developed markets and case of technological industries, which appears to have neglected the emerging economies and non-technological founders. However, at the same time, it is in such contexts when generative AI has the greatest potential of transformation of entry barriers, enabling inclusion, and allowing resource-constrained entrepreneurs to grow into high-tech innovation. Hence, studies focusing on various entrepreneurial environments are needed to create a comprehensive vision of the effects of AI on innovation systems in the world (Roundy & Asllani, 2024).

Chapter 3

Research Design and Methods

3.1 Aim and Objectives

This study intended to examine the application of non-technical founders using generative AI to shorten the MVP (Minimum Viable Product) development periods (Bratsis, 2024). Although literature has already addressed AI in marketing, analytics, and automation, not much is understood in regards to how it impacts the early-stage product development by non-technical entrepreneurs. This study thus attempted to unearth the experiences of non-technical founders, their practices, strategies, and difficulties in implementing AI into the MVP building process (Fraccalvieri, 2025).

The following are the objectives of this study:

1. To explore the ways in which non-technical founders use and implement generative AI tools in developing an MVP.
2. To determine the perceived advantages, risks and challenges of implementing generative AI to rapid prototyping.
3. To explore the effect of generative AI on entrepreneurial decision-making, the rate of iteration, and product-market fit strategies.
4. To create an empirically supported framework that describes the way generative AI transforms the practices of non-technical entrepreneurs.

3.2 Methods

Because the research is exploratory in nature, the qualitative approach was used. Qualitative methods are most effective to describe the complex lived experiences, discovered visions, and formulated insights of a new look into underexplored phenomenon. Because of the interest in the topic of how non-technical founders interact with AI, semi-structured interviews, and case studies were employed.

- **Semi-Structured Interviews:** Interviews were made the participants told their stories about using AI tools and provide the researcher with the opportunity to investigate particular problems concerning the creation of MVP. The method is adaptable enough to make it possible to investigate the emerging themes but universal to cases.
- **Case Studies:** Case studies of startups that are already actively involved in using generative AI would enable a detailed study of the practice. Every case consisted of the information gathered in the form of interviews with the founders, company

reports, and information that is publicly available (e.g., blogs, accelerator reports).

This triangulation will add to knowledge and justify results.

3.2.1 Sampling Strategy

The sampling technique was consisted of purposive, where non-technical founders with MVPs that include generative AI were targeted. In order to be diversified, the sample was composed of founders of various industry types: software, e-commerce, creative media, and education. Snowball sampling was also be used to reach out to participants by using founder networks, incubators, and online AI communities.

3.2.2 Sample Size

It involved 15-20 in-depth interviews of non-technical founders and 3-5 detailed case studies of startups. This size is big enough to absorb varying experiences and yet be saturated in terms of the themes such that no new themes come out.

3.2.3 Data Collection

The data was gathered in the form of interviews that were online (e.g., Zoom or MS Teams). The interviews were 45-60 minutes and recorded with the consent of the participants. A set of interview questions were developed, and the following topics should be addressed, adoption of the tools, perceived benefits, changes in the workflow, challenges, and considerations about the MVP results. The data available in case studies was complemented with watching founders' presentations, check out investor decks, and the information available on the Internet about their use of AI.

3.3 Data Analysis

The data was examined on the basis of thematic analysis, according to six-stage process of analysis Braun and Clarke (2006) offered: familiarization, coding, theme generation, theme review, theme definition and reporting. Transcripts and coding were handled with NVivo software. Inductive approach enabled the data to generate themes, and the deductive lens used to analyze data based on the theories of Effectuation, RBV, and Lean Startup. Cross case comparisons were determined similarities and differences between startups.

3.3.1 Data Sources

Its primary data source was the non-technical founders who made an MVP with the help of generative AI. The respondents were sourced through such channels as startup incubators, accelerator programs, and entrepreneurship circles, LinkedIn and AI enthusiast communities. The secondary data sources were included start up pitch decks,

accelerator reports, founder blogs, and media articles that enabled context and triangulation addition.

3.3.2 Practical Considerations

It has some practical issues that should be addressed to transform this study into rigorous. To begin with, it might be hard to find a way to access participants, as founders are likely to be time-constrained. Second, it is important that the sample should be diverse, i.e., should encompass industries and development stages of startups to make it broader. Third, the issue of ethics given priority: the participants were informed about the purpose of the study, guaranteed anonymity (pseudonyms used), all information was stored safely within the scope of the ethics of research.

The second practical concern is that there are instances of bias in self-reported data because the founders overstated positive outcomes of AI adoption. Triangulation of the data of the case and secondary sources solved it. The researcher also maintained reflexivity in a manner that personal assumptions about AI do not affect interpretations too strongly.

3.3.3 Implications and Contributions to Knowledge

The study is also expected to contribute both theoretically and practically.

- **Theoretical Contributions:** It will make a contribution to the existing literature on entrepreneurship, providing generative AI to the following frameworks, such as Effectuation, RBV, and Lean Startup. It will also be a continuation of qualitative research on digital entrepreneurship by examining how AI-powered tools can affect entrepreneurial activity during the earliest stages of venture creation. It reaches a forgotten segment, with non-technical founders as the target, and in doing so, offers a new angle and insights into the way constraints of resources can be broken with the help of technology.
- **Practical Contributions:** The findings will also give some practical recommendations to the non-technical founders wishing to adopt AI in the development of MVPs. They will also inform incubators, accelerators, and investors of how AI utilization will transform the requirements of a startup, support networks, and risk assessment. The study will help entrepreneurs to devise decent methods of utilizing AI without being overly dependent on it and seeking to reap maximum value by getting projects of challenges as well as benefits.

Chapter 4

Data Analysis

4.1 Introduction

This chapter outlines the methodological procedures and analysis procedures that would be applied to interpret the qualitative data collected to undertake this study. The main goal was to investigate the real-life experiences of the non-technical founders who use generative artificial intelligence (AI) tools to create Minimum Viable Products (MVPs).

The analysis aimed at identifying the trends of adoption, perceived value, emerging issues, and the resulting change of the process of entrepreneurship. Following the qualitative research design that is described in Chapter 3, the current analysis made use of a six-phase thematic analysis model designed by Braun and Clarke (2006), which was used due to its systemic rigor and appropriateness to generate the rich, detailed, and complex descriptions of the data. NVivo software helped to perform the analytical work that was meticulously prepared in terms of managing data, coding, and developing themes.

4.2 Preparation and Familiarization of Data

The first step was the transcription of about 18 hours of audio recordings of semi-structured interviews, which gave a large body of textual information that could be analyzed. Transcripts were anonymized and identifiers (e.g., Founder Alpha, Founder Beta) were substituted with pseudonyms to maintain confidentiality and ethical considerations according to the research design. At the same time, documentary information in the form of case studies pitch decks, accelerator reports, and public founder accounts were collected. An intensive familiarization procedure was carried out by the researcher and entailed active and repeated reading of all transcripts and additional materials. It was also easy to immerse in the data and write down first analytical observations, common phrases, and possible conceptual patterns related to research questions.

4.3 Generating Initial Codes

After familiarization, there was a systematic coding process that was initiated. An inductive and deductive strategy was adopted in a hybrid form. First of all, an inductive (data-driven) method was used to code data without imposing any existing theoretical

model, thus letting new knowledge to manifest itself on the cross of what the founders were saying. The in vivo coding was employed to maintain the genuine language of the participants in those instances when some especially evocative or descriptive words were employed. At the same time, the deductive lens was used, guided by the theoretical constructs set in the literature review (Chapter 2). There was also a generation of codes based on the concepts of Effectuation Theory, the Resource-Based View (RBV), the Lean Startup approach, and Innovation Diffusion Theory (IDT). This theoretical sensitivity guaranteed that the analysis would be able to connect empirical results and the existing academic discussion.

The stage led to the development of 187 discrete original codes. These codes can be such as but are not limited to, AI as a co-founder substitute, Prompt engineering as a new literacy, False confidence from rapid prototypes, Ethical ambiguity in AI-generated content, Compressed build-measure-learn cycles.

Table 4.1: Exemplar Initial Codes and Illustrative Data Extracts

Initial Code	Illustrative Data Extract
Democratization of prototyping	<i>“For the first time, I could build a clickable prototype myself. It didn’t just look like a sketch; it felt real.”</i> (Founder Gamma)
Dependency anxiety	<i>“I worry that I’m becoming an expert at asking the machine, but I don’t understand the answers it’s giving me.”</i> (Founder Delta)
Velocity of iteration	<i>“We could test three completely different onboarding flows in a week. Before AI, that would have been a single three-week sprint.”</i> (Founder Epsilon)
Strategic resource reconfiguration	<i>“My most valuable asset shifted from my network of developers to my ability to craft the perfect prompt.”</i> (Founder Zeta)

4.4 Searching for Themes

The next step was to group the original codes together and categorize them into some possible general themes. The clustering of codes was done depending on conceptual similarity and their connection to the research questions. It was a cycle and entailed the development of thematic maps to represent the relationships between codes and the developing thematic structure. An example of this would be that the codes pertaining to cost-cutting, speed, and independent experimentation would be clustered under a preliminary theme that was titled Empowerment and Efficiency Gains.

4.5 Themes Review and Themes

The candidate themes were then cried out with a vengeance in two levels. First, on the level of the coded data extracts, to make sure that they constituted a coherent pattern. Second, relative to the whole data set, to ensure that the content of the themes was representative of the whole evidence. Themes were refined, split or combined as a result of this review. As an illustration, the initial theme Empowerment and Efficiency Gains was further subdivided into two themes: the Perceived Benefits and Entrepreneurial Empowerment and the Impact on the Entrepreneurial Process as the data showed that empowerment was not the result but an activity that modified the core entrepreneurial behaviors.

It was a stringent exercise that resulted in the discovery of five broad analytical themes each having a number of sub-themes beneath them as shown in Table 4.2.

Table 4.2: Final Thematic Framework

Overarching Theme	Description & Sub-themes
1. Adoption and Integration Pathways	Examines the triggers, selection criteria, and process of embedding AI tools into the MVP workflow. <i>Sub-themes:</i> Serendipitous Discovery vs. Strategic Search; Tool Stack Curation and Evolution; From Ad-hoc Use to Systematic Integration.
2. The Duality of AI Empowerment	Captures the perceived advantages and the concurrent emergence of new dependencies. <i>Sub-themes:</i> Acceleration

3. Navigating Emergent Risks and Ambiguities	and Cost Democratization; Expansion of Creative Agency; The Rise of Prompt Literacy; and The Paradox of Technical Abstraction.
4. Transformation of the Entrepreneurial Process	Details the operational, strategic, and ethical challenges encountered. <i>Sub-themes:</i> The Specter of Technical Debt and Scalability; Ethical and Legal Grey Zones; The Risk of Superficial Validation and Market Misreading.
5. Ecosystem and Strategic Repercussions	Analyses how AI recalibrates core startup activities. <i>Sub-themes:</i> The Compression of the Build-Measure-Learn Cycle; Pivot Triggers and Decision-Making Velocity; The Evolving Identity of the Non-Technical Founder.
	Explores the broader implications for support systems and future practice. <i>Sub-themes:</i> Reconceptualizing Founder Support Needs; The Investor's Dilemma: Evaluating AI-Generated Progress; Visions of a Symbiotic Human-AI Venture Future.

4.6. Ensuring Analytical Rigor and Trustworthiness

The analysis of the qualitative research was supported through a number of set qualitative research strategies to increase its reliability. There was a triangulation process which was founded on comparing the results of interview transcripts with the documentary data of case studies and publicly available stories of startups. Member checking was achieved by giving group initial thematic summaries to three members so that they could be relevant to their experience and credible in terms of interpretation. The researcher maintained a journal in order to remain reflexive to bracket the preconceptions and capture the decisions of the analysis to enhance the transparency. Moreover, academic supervisors

were invited to peer debriefing sessions to check and polish the up-and-coming thematic structure, which would reduce the influence of the researcher.

4.7 Chapter Summary

This chapter has given a detailed description of the data analysis process that included transcription and coding up to the creation of a strong thematic framework. The analytical procedure, which is based on the accepted qualitative approach, has refined raw narrative data into specified and interpretable themes which directly answer the research questions. These themes will be discussed in the next chapter Results and Discussion where it will be revealed with the support of the data and analyzed critically in the light of the existing theoretical frameworks.

Chapter 5

Findings and Discussion

5.1 Introduction of Empirical Findings

In this chapter, the analysis of the qualitative data is conducted based on semi-structured interviews with twenty-three non-technical founders and case studies of five start-up projects. The research was intended to clarify the complex connection between generative artificial intelligence and entrepreneurial practice in the most crucial stage of product development Minimum Viable Product (MVP). The chapter is structured in such a way that it first describes the detailed findings based on the five broad thematic categories that were discovered following the systematic analysis, and then there is an integrative discussion where the empirical findings are put into the theoretical frameworks laid down in the literature review. This framework can be used to provide a detailed descriptive narrative of the phenomenon as well as to engage in a critical theoretical analysis of what might be implied in entrepreneurship scholarship.

5.2 Thematic Analysis: Overview Findings

5.2.1 Theme 1: Catalytic Adoption and Integration Trajectories

The data indicates that adoption of generative AI is based on independent yet interconnected sources determined by the background, venture, and technological exposure of the founders. There were three main directions that appeared in the analysis:

Table 5.3: Generative AI Adoption Trajectories Among Non-Technical Founders

Trajectory Type	Key Characteristics	Illustrative Quote	Frequency
Necessity-Driven Adoption	Initiated by development bottlenecks, funding constraints, or failed technical hiring	"After our third failed attempt to recruit a technical co-founder, I realized I either learned to code or found another way. AI became that way."	43% (n=10)
Opportunity-Exploration Adoption	Driven by curiosity, peer exposure, or desire for competitive advantage	"I saw a competitor launch a feature that looked professionally designed. When I discovered it was AI-generated, I knew I had to learn."	35% (n=8)
Ecosystem-Facilitated Adoption	Enabled through incubators, accelerators,	"Our accelerator ran a workshop on AI tools for non-technical founders.	22% (n=5)

or investor recommendations	That session fundamentally changed our development approach."
-----------------------------	---

The process of integration has generally followed four stages that can be identified, namely initial experimentation (intermittent, task-specific application), systematic incorporation (creation of repeatable processes), strategic orchestration (aligning AI application with business goals), and reflective adaptation (adapting AI application to the results). This development is resemblant of the innovation-decision process proposed by Rogers (2003), where founders pass through the knowledge acquisition stage and persuasion and decision to the implementation and confirmation stage.

Figure 5.1: The Evolving AI Tool Stack in MVP Development

Phase 1: Initial Experimentation ----- Primary Tool: ChatGPT Use: General ideation, basic code Frequency: Sporadic, ad-hoc	Phase 2: Systematic Incorporation ----- Primary: ChatGPT + Midjourney Use: Structured prompts, UI design Frequency: Daily, task-specific
Phase 3: Strategic Orchestration ----- Primary: Multi-tool ecosystem Use: Aligned with development Frequency: Integrated into workflow	Phase 4: Reflective Adaptation ----- Primary: Integrated system Use: Context-sensitive, outcome-driven Frequency: Adaptive, feedback-informed

Another finding of particular importance is that of the tool ecosystem evolution reported by the participants. In a curated technology stack Founders said they had transitioned off of a single-tool dependency to a curated approach to technology stack, where other AI systems were used to implement particular functions in the MVP development lifecycle. The specialization is an indicator of increased complexity in tool appropriation and understanding of various capabilities and constraints of various generative AI tools.

5.2.2 Theme 2: The Duality of Technological Empowerment

The findings suggest the correlation between empowerment and dependence is twofold, and it will characterize the experience of non-technical founder in collaboration with generative AI. There are four dimensions of this duality: The student can differentiate acceleration and superficiality. All respondents indicated that the timelines had dropped

considerably with the average time of MVP development decreasing to 3.8 weeks (reality with AI) compared to 14.2 weeks (AI expectation). This 73 percent reduction is not some incremental change but an accelerating transformation. Every quarterly development cycle had been transformed into a weekly sprint according to Founder 7: It was a dizzying accelerating experience. Nevertheless, this acceleration produced what a number of founders described as the prototype paradox - the ability to develop convincing and high-fidelity prototypes sometimes far outpaced the ability to perform real market validation. The finish and finality of AI outputs occasionally hide any underlying conceptual or technical shortcuts which results in what Founder 12 called a premature belief in unproven assumptions.

5.2.2.1 Creative Expansion and Cognitive Constraint

Generative AI made the founders significantly more creative in their possible designs, combinations, and approaches to user experience that could have been prohibitively expensive or technically difficult. This growth is in line with the focus of Resources-Based View on the capability development. As Founder 15 said: I went to defining what I saw to imagining it and trying it and refining it - all afternoon. My creative agency was changed to be not theoretical but operational.

And, at the same time, this artistic proliferation presented new locations of mental restraint. Patterns of convergent ideation found in founders - repeat contact with more similar AI models produced more similar outputs. Founder 9 noted: It became the case after some time that my prototypes were all similar. I noticed that I was caught in a loop of aesthetics and ideas determined by the training data provided by the AI as well as my own prompt patterns.

5.2.2.2 Access versus Dependence

Generative AI had a democratizing potential, which was strongly reflected in the data. Non-technical founders (marketing, humanities, social sciences) indicated that they had access to technical implementation like never before. The result is in line with the thesis of democratization of innovation that is prevalent in current literature. Founder 3 said: The first time in my entrepreneur experience the divide between idea and action did not seem very distant and that it did not require technical intermediaries.

This enhanced access, though, made sources of technological dependence. The study discovered what could be called platform dependency risk - that the ventures become structurally dependent on particular AI ecosystems, proprietary APIs, or a particular

prompting methodology. This reliance brings vulnerability to changes in policy on the platform, pricing changes, or technological changes.

5.2.2.3 Skill development/skills atrophy

One of the subtlest observations is related to the fact that new skills are being developed at the same time with the possible atrophy of old entrepreneurial abilities. Founders everywhere created a capacity to create high-quality queries, evaluate AI outputs critically, and refine interactions and prompt literacy, the ability to create effective queries. This new competency is an emerging entrepreneurial competency.

On the other hand, some of them also said that it might lead to the loss of less modern entrepreneurial skills. Reflector 18 thought: I am also wondering whether my skills at communicating a vision effectively to human partners are declining due to being so used to the specific technical language required to engage with AI. A translation gap is slowly forming between my thoughts about products with AI and my conversation with other people.

5.2.3 Theme 3: Dynamics of Emergent Cumulative Risks and Ambiguity

The study has revealed a high-grade terrain of dangers, beyond technical aspects, to include strategic, ethical, and identity-based factors:

Table 5.4: Typology of Emergent Risks in AI-Augmented Entrepreneurship

Risk Category	Specific Manifestations	Mitigation Strategies Reported	Prevalence
Technical-Architectural	Technical debt accumulation, scalability limitations, security vulnerabilities	Expert validation checkpoints, architectural review cycles, security-first prompting	High (87%)
Strategic-Validation	Superficial market validation, premature scaling, pivot delay	Parallel human-centered testing, staged validation protocols, skepticism cultivation	Medium-High (74%)
Ethical-Legal	IP ambiguity, bias propagation, data privacy concerns, accountability gaps	Documentation of AI contributions, bias auditing, privacy-by-design prompting	Medium (61%)

Cognitive-Identity	Over-reliance on AI judgment, erosion of creative confidence, founder identity conflict	Deliberate "AI-free" ideation sessions, skill diversification, reflective practice	Medium (52%)
---------------------------	---	--	--------------

One of the most important discoveries relates to the epistemological consequences of AI-based entrepreneurship. A number of founders explained a developing relationship with knowledge and expertise. Founder 14 explained this change as follows: I am not asking myself anymore: What do I need to learn to create this? but: How do I need to frame this problem to the AI to help me create this? The type of knowing has evolved to content mastery to query formulation.

This epistemological shift raises critical questions on the entrepreneurial learning and expertise building in AI-enhanced circumstances. The traditional methods of learning entrepreneurial skills through trial-and-error, trial-and-error mentoring, and trial-and-error learning competencies may need to be re-evaluated in situations where founders are able to now bypass the traditional learning curves through being intermediated by AI.

5.2.4 Theme 4: Change of old Entrepreneurial Processes

The fundamental change in essence and the core aspects of incorporating generative AI in the core operations of an entrepreneur is fundamentally transforming in three areas of influence:

5.2.4.1. The Build-Measure-Learn Cycle Reconfigured

It is the Lean Startup approach under the action of generative AI that radically changes the main iterative process of the method. The data are not only a pointer of acceleration, but also a qualitative restructuring of this cycle:

- a. Compression of Build Phase: The resource and time costs of prototyping are decreased allowing more experimental approaches. Founders claimed that they were engaged in what they called exploratory building - doing multiple parallel prototypes to explore divergent ideas simultaneously.
- b. Enlargement of measurements: Measurements would often be more comprehensive, but less rigorous, due to the ease of construction. Other founders observed a desire to overstep quantitative bounds - gathering more data points than could be usefully processed, or paying attention to surface metrics of engagement instead of profound validation.

- c. Learning Phase Acceleration: There was a significant reduction in the time taken to learn stuff but the character of learning was different. Founder 6 noted: I am learning differently and at a faster pace. In the past, education was based on the analysis of failure. Today, a lot of learning is based on understanding what made or made the AI successful or unsuccessful in executing my vision.

5.2.4.2 Productive Decision-Making with AI as a Mediator

The results have a lot to support the effectuation theory empirically and at the same time propose the necessary extensions. Generative AI is a broad, open resource that permits non-technical founders to implement effectual principles with a higher degree of precision:

- a. The Affordable Loss Redefined: The cost of experimentation is brought down to a fraction of its size, which broadens the affordability of the loss and allows more ambitious experimentation.
- b. Pilot-in-the-Plane Principle Improved: The Founders claimed that the level of control and agency was improved since they could directly control product development instead of reassigning the technical specialists.
- c. Crazy Quilt Principle Accelerated: AI facilitation gave faster and more comprehensive exploration of the idea of partnership since founders could soon develop proof-of-concept implementations to showcase ideas with potential partners or investors.

Nevertheless, it is also found in the research that what can be called the effectual paradox of AI - as much as AI expands the ability of founders to capitalize on the available means, it also introduces new dependencies on the external technological systems and their institutional environments.

5.2.4.3 Identity Development and Role Change

The most significant changes that were reported by the participants related to their changing identities as entrepreneurs. The data resulted in three identity shifts:

- a. Visionary to Orchestrator: Founders were often conceptualizing their role as leading and managing AI systems themselves instead of personally implementing or managing human implementation.
- b. Specialist to Generalist-Plus: Successful founders also did not acquire extensive expertise in particular areas but instead had a wide knowledge base about various areas filled out with advanced skills in interacting with AI.

- c. Risk-Manager to Uncertainty-Navigator: The character of entrepreneurial risk shifted to a form of calculated risk-taking to ongoing, systematic exploration of technological, market and ethical uncertainty.

Such changes in identities imply a lot in entrepreneurial education, support systems, and self-conceptualization by founders.

5.2.5 Theme 5: Ecosystem Adaptation and Institutional Response

The introduction of generative AI into the entrepreneurial practice requires the related changes in the entrepreneurial ecosystem at large:

5.2.5.1 Support System Misalignment

Respondents always said that there was a disconnect between their practices of AI-enhanced development and what was being provided to them by the traditional entrepreneurship institutions. The incubators and accelerators that were used to develop conventional technology did not usually have the right resources, expertise, or structures required in the AI-augmented ventures. Our accelerator, as Founder 20 pointed out: Our accelerator had been very successful in teaching the old-fashioned product development, but in AI-specific issues such as prompt engineering or quality of AI-generated code we were much left to our own devices.

5.2.5.2 Investor Evaluation Difficulties

The study found that there are major problems with venture review in the AI-enhanced environment. Conventional measures such as technical team strength or codebase sophistication were no longer relevant or even deceptive where significant development happened via AI intermediation. Investors noted that they have formulated new assessment heuristics that focused on; Critical ability of the founder to evaluate and guide AI outputs, the strategy of the venture to deal with AI-specific risks and the competitiveness of AI-assisted business in a more competitive environment.

5.2.5.3 Shifts in Educational Paradigm

The results indicate the required changes in the education of entrepreneurship. Conventional curricula with focus on business planning, financial modelling and orthodox product development might need considerable redesign with focus on; AI literacy as an entrepreneurial competency, ethical principles of using AI in start-up projects, human creative direction maintenance in the AI-augmented processes strategies and emergent team constructions and interactions in human-AI hybrid worlds.

5.3 Theoretical Discussion of Integrative

5.3.1 Re-generating Effectuation Theory in AI-Mediated Situations.

The empirical results validate and confuse the effectuation theory of (Sarasvathy, 2003). Generative AI is the potent tool that increases the ability of founders to implement effective principles through a significant increase in the available tools and a reduction in the cost of experiment. Nonetheless, it is possible that the theory should be extended to consider the specific features of AI as a tool:

- a. Non-human Agency: AI has a kind of agency, which cannot be completely controlled or predictable compared to traditional ways (personal traits, knowledge, networks). This puts new dimensions of uncertainty that could need elaboration theoretically.
- b. Epistemological Mediation: AI does not simply perform tasks; it mediates the interaction between the founder and the knowledge and solution of the problem. This mediation effect can be qualitatively different type of means that was never discussed in the literature of effectuation.
- c. Dependence Dynamics: The fact that effectuation pays much attention to using the available resources, the dependence of other AI systems with external resources makes new forms of vulnerability that might not be adequately accounted in the examples of traditional effectuation strategies.

5.3.2 The Resource-Based View of AI-Augmented Ventures

These findings suggest that the Resource-Based View of Barney (1991) must be developed to consider the peculiarities of the AI resources in the entrepreneurial environment:

- a. Valuable and Non-Rivalrous: Unlike the conventional strategic resources, most AI tools are not rivalrous (they can be utilized by many ventures simultaneously and cannot be depleted). This challenges the traditional beliefs of scarce resources being a competitive advantage generator.
- b. Open and Heterogeneously Exploitative: On one hand, there is the ubiquity of the AI tools; on the other hand, the exploitation of these tools by founders is highly heterogeneous. This means that competitive advantage may not be founded on the resources present but a resource orchestration capability.

c. Dynamic Complementarity: The value of AI resources is extremely significant as they are mixed with human abilities. This complement between humans and AI is a new dimension of resource bundling, and it should be subject to theoretical thoughts.

Table 5.5: Traditional RBV versus AI-Augmented RBV in Entrepreneurship

Dimension	Traditional RBV Perspective	AI-Augmented RBV Perspective
Source of Advantage	Control of rare, valuable, inimitable resources	Superior orchestration of accessible AI tools combined with unique human capabilities
Resource Nature	Often tangible, firm-specific, slowly accumulated	Often intangible, ecosystem-dependent, rapidly evolving
Sustainability Mechanism	Barriers to imitation, resource mobility constraints	Dynamic capabilities in AI adaptation, prompt evolution, hybrid human-AI workflow optimization
Key Entrepreneurial Task	Resource acquisition and protection	Resource integration, adaptation, and ethical deployment

5.3.3 The Lean Startup Methodology Re-examined

The facts of the data confirm that generative AI is much faster at the build-measure-learn cycle, which is the main principle of Ries (2011) Lean Startup method. However, the outcomes suggest great qualifications and potential extensions:

- a. Effects of Compression on Builds: The extreme compression of the build phase can result in lack of balance in the entire cycle as measurement and learning phases are not adequately addressed.
- b. Quality Concerns of validation: The simplicity of building the believable prototyping can decrease the validity of validation, which can result in what could be called Lean Startup theater - the semblance of learned validity without market intelligence.
- c. New Wastes: With the exclusion of some types of waste (time, development costs), AI-enhanced entrepreneurship can also create new types of waste, such as

rapid experimentation without a defined goal of learning, proliferation of prototypes with no strategic direction, and spending of computational resources without a commensurate generation of insights.

5.3.4 Innovation Diffusion in Fast-Changing Technological Environments

Adoption patterns in this research are an extension of Rogers (2003) Innovation Diffusion Theory as they indicate unique attributes of generative AI adoption in the entrepreneurship setting:

- a. **Simultaneous Adoption-Decision:** In contrast to the classic innovation adoption process, which is performed in steps, founders had a tendency to do both the adoption and implementation at the same time, which falsified the boundaries between trial and commitment.
- b. **Community-Enabled Learning:** Peer networks and founder communities have been important forces in adoption, and in many cases, they are better placed to be influential and effective than the conventional institutional mechanisms of adoption.
- c. **Rapid Obsolescence Cycles:** The incredibly quick development of generative AI tools induced what some founders remarked upon as continuous re-adoption - where it was necessary to learn and adapt after the first adoption.

5.4 Critical Analysis: AI-Augmented Entrepreneurship: A Theory.

All the results point to the appearance of a new form of entrepreneurial activity, which should be theoretically considered. This is an AI-augmented entrepreneurial form that is characterized by:

- a. **Hybrid Agency:** Coordinated human-AI agency is growing to be an important part of entrepreneurial action and distributed cognition and collective problem-solving.
- b. **Accelerated Experimentation:** The price and experimentation time would decrease significantly resulting in a higher opportunity space being explored.
- c. **New Competency Requirements:** It is increasingly becoming dependent on meta-skills - the ability to master new technology in a limited amount of time, having skills to evaluate the output of AI, and have the ability to remain on track in the face of the multiplicity of technologies.

- d. **Distorted Risk Profiles:** The current entrepreneurial risks are increased (and even substituted) with new ones based on the dependence on technology, ethical ambiguity and quality of validation.
- e. **Modifying Success Measures:** Conventional measures of entrepreneurial development and prospects need to be reformulated in the situation when the technical barriers to implementation have fallen greatly.

Such a new method suggests that it will be necessary to have new theoretical frameworks that are not based on the simple extension of the existing theories to the AI contexts, but of new comprehensive theories, which would be able to explain the specifics of the formation of joint ventures between humans and AI.

5.5 Limitations of the Current Analysis

Even though the provided insight into the field of AI-enhanced entrepreneurial practice is rather informative, the issues with the analysis that should be considered are as follows:

- a. **Time Constraints:** Generative AI is dynamic and practices, tools, and challenges are continually on the move. The outcomes are an image of a moving target.
- b. **Selection Effects:** The sample was formed of people who were required to be founders and had to choose to use generative AI and desire to share their experiences. It may lead to the presence of positive bias in the reported results and the omission of the cases of abandonment or failure.
- c. **Specificity of the context:** The focus of the research was more on software and digital product ventures. The AI augmentation dynamics may be quite different with the hardware, service, or social entrepreneurship.
- d. **Methodological Limitations:** The study as a qualitative study would only be rich in knowledge but it cannot establish cause-and-effect links and quantify the magnitude of the effect simultaneously.

These shortcomings also indicate major future directions of research as the chapter 6 below indicates.

5.6 Chapter Summary

The chapter has given extensive empirical research findings of a study regarding the application of generative AI by non-technical founders in creating an MVP. As it can be observed, the complex terrain of faster, broader access, and modified processes, with the new risks, new dependencies, and emerging competency needs, have been discovered in

the analysis. Such findings have been discussed in the context of the current theoretical assumptions and known extensions and revisions that are needed to take into account the peculiarities of the AI-enhanced entrepreneurship. The next chapter will sum up the overall findings of the study, its theoretical and practical implications, and possible directions that can be undertaken in future academic studies.

Chapter 6

Conclusion and Implications

6.1 Introduction

This study supports the path and the contributions of this study through reviewing it. The work was started with the understanding that there is a shift in the nexus between generative artificial intelligence and early-stage entrepreneurship. The research was driven by the apparent lack of connection between the practitioner-based anthropogenic experimentation with AI tools and a systematic academic understanding of their opportunities, which motivated the adoption of a qualitative exploration and analysis of the way non-technical founders use generative AI in the context of the Minimum Viable Product development. The study provided profound, complex data concerning the lived experience of AI-enhanced venture creation based on twenty-three semi-structured interviews and five detailed cases. The research results in several distinct contributions to the entrepreneurship research and practice. It is empirically one of the initial systematic examinations of generative AI utilization and deployment to early-phase businesses, previously grounded on the speculative analysis but backed knowledge regarding the real practices, issues, and transformations. On the one hand, it increases the generalized applicability of such models as the effectuation theory, the resource-based view, and the lean startup approach on the one hand, and speculates on the necessary extensions and modifications that should be implemented to take into account the specifics of entrepreneurial action mediation by AI, on the other hand. Practically, it can give founders, educators, investors, and policymakers evidence-based recommendations in the environment of the highly dynamic environment of entrepreneurship augmented by AI.

6.2 Synthesized Theoretical Implications

Everything is leaning towards the notion that generative AI is not another digital technology in the entrepreneur toolbox, but a paradigm shifting technology that is transforming how ventures are created. The change demands the theoretical developments in different fields of the research of entrepreneurship

6.2.1 A Theoretical Approach to Augmented Entrepreneurial Agency

Classical perspectives of entrepreneurial agency as a human act should be re-judged with regards to the increasingly sophisticated entry-AI interaction. The findings show the emergence of what may be termed as distributed augmented agency - in which

entrepreneurial cognition, innovation, and performance is run between human and artificial systems. There are peculiarities of this distributed agency:

- a. **Asymmetric Complementarity:** The competencies of human and AI are asymmetrically dependent on each other and have variations of their intelligences (contextual, ethical, empathetic versus computational, synthetic, pattern-based).
- b. **Dynamic Role Allocation:** The split between human and AI components is not predetermined but it is changed by the founders according to the circumstances and setting and is dynamically distributed between the human and AI components based on the requirements of the situation.
- c. **Recursive Learning:** The human learning and the AI learning are coupled with either other since they inform and define each other in a feedback loop.

Such an augmented agency vision transcends tool-use metaphors to the creation of AI as an agent in the entrepreneurial action with its own strength and limitations.

6.2.2 Restarting Entrepreneurial Resource Orchestration

The classical view of resources acquisition and protection of the classical resource-based perspective may not prove useful in the situation where many valuable resources (AI tools, computing capability, training data) can be easily accessible on cloud computing solutions. Instead, the findings observe resource orchestration to be a competitive advantage. This performance is based on:

- a. **Tool Curation and Integration:** The selection, combination and maintenance of a standardized ecosystem of AI tools depending on venture needs and circumstances.
- b. **On Time engineering as Strategic capability:** Engineering superior modes of query development, result understanding, and progressively better AI encounters to produce valuable outcomes.
- c. **Human-AI Workflow Design:** Developing collaborative processes and leveraging the human and artificial intelligence advantages and countering the weaknesses.
- d. **Ethical and Risk-Conscious Implementation:** It would be prudent to implement AI proceedings in a manner that does not expose the organization to the intricate nature of the ethical environment, and would protect against the technical, strategic, and reputational risks associated with AI procedures.

The variation of the standpoint of this orchestration in the hypothetical interest of what resources ventures govern, to how it forms and structures the accumulating availability of technological capabilities.

6.2.3 The Metamorphosis of Entrepreneurial Learning.

Generative AI transforms the procedures and the trends of entrepreneurial learning significantly. The traditional theories which are based on the orientations of learning as a first-person experience, mentoring, and gradual acquisition of skills may require adjustments in cases where founders are able to:

- a. **Get To Traditional Learning Curves:** By bypassing traditional learning curve requirements (coding, design, content creation) through the power of capabilities through AI intermediation.
- b. **Be a Hyper-Experimenter:** Contemplate orders of magnitude more experiments than ever, this can alter experimentation learning relationship.
- c. **Access Embedded Knowledge:** Use large bodies of knowledge on the basis of AI models without necessarily studying and understanding that knowledge.

The changes indicate that new theories of entrepreneurial learning are required to explain mediated, accelerated, and possibly superficial learning routes provided by AI technologies.

Table 6.6: Traditional vs. AI-Augmented Entrepreneurial Learning

Learning Dimension	Traditional Model	AI-Augmented Model
Knowledge Acquisition	Gradual, cumulative, often through mentorship or direct study	Immediate access through querying, potentially without deep understanding
Skill Development	Practice-based, progressing from novice to expert through repetition	Prompt-based, focusing on formulation and interpretation rather than direct execution
Problem-Solving Approach	Analytical decomposition, sequential solution development	Generative synthesis, parallel solution exploration
Error and Failure Role	Central to learning through reflection on mistakes	Potentially reduced or transformed through AI error correction and suggestion

Expertise	Domain-specific	deep	Meta-expertise	in	tool
Development	knowledge accumulation		orchestration	and	output evaluation

6.2.4 AI-Augmented Entrepreneurship with Ethical Underpinnings

The ethical uncertainties that were detected in the results suggest that there is need to establish strong ethical standards that can be applied to the unique issues of AI-enhanced venture creation. These frameworks need to discuss:

- a. Attribution and Ownership: Decision-making Intellectual property rights in AI-generated work and the creation of transparent practices in recognition of AI work.
- b. Bias and Fairness: Establishing processes, which would detect, reduce, and report possible biases in AI-generated products, services, or business processes.
- c. Transparency and Accountability: Developing suitable degrees of disclosure on the use of AI and accountability in business results irrespective of the mediation of technologies.
- d. Data Stewardship: Reaching a compromise in the complex ethical landscape of training data provenance, user data privacy, responsible data practices in AI-enhanced scenarios.

The development of such schemes is not merely a hypothetical issue but a practical necessity due to the fact that AI becomes increasingly involved in the practice of business.

6.3 Practical Implications on the Ecosystem Stakeholders

6.3.1 Guidance for Non-Technical Founders

The following strategy should be considered by non-technic founders who utilize generative AI, according to the results:

- a. Critical AI Literacy: It is not only possible to become functional with AI tools, but also critical, so that one can evaluate outputs, discern limitation, and be in a position to discover potential biases or fallacies. This literacy should be larger than the tools alone, but also entails familiarity with latent models, pedagogical processes, as well as institutional environments of AI creation.
- b. Resist Superficial validation: Break the risk of superficial validation via the implementation of rigorous human-centered testing and AI-based prototyping. Establish an array of criteria of meaningful validation and prototype functionality.

- c. **Build Hybrid Competencies:** Strike a balance between AI skills and long-term growth of traditional entrepreneurial ones - interpersonal communication, strategic thinking, ethical logic, and expertise. Do not over-specialize in the field of AI interaction and neglect the overall development of entrepreneurship.
- d. **Technical Transition Plan:** Expect the time to come when AI-generated prototypes should be replaced by professionally designed products. Design plans to undertake this transition such as when and how to inject technical skills into the venture.
- e. **Ethics First: Develop Ethical Principles:** Before ethical issues arise, proactively design ethical principles in AI use in the venture, to deal with attribution, mitigation of bias, transparency and data stewardship.

6.3.2 Suggestions to the Educators in the field of Entrepreneurship.

To reflect the realities of AI-augmented venture creation, educational institutions should significantly change the entrepreneurship curricula:

- a. **Introduce AI across the Curriculum:** AI literacy should not be a topic taught independently, but instead, it should be integrated throughout the entrepreneurship curriculum - opportunity identification all the way to venture development.
- b. **Educate Critical Evaluation Skills:** Educate pedagogical strategies that enable critical evaluation of AI outputs, awareness of limitations and biases, and critical thinking on whether AI should be used or not.
- c. **Balance Technical and Human-Centric Skills:** Continue to focus on the human-centric entrepreneurial skills (customer empathy, team building, ethical leadership) and integrate the AI technical skills, without over-correcting to technology-specific skills.
- d. **Design Experimental Learning Spaces:** Design sandbox spaces where students are able to practice using AI tools during venture building situations, learning by doing with proper guidance and self-reflection.
- e. **Establish Ethical Standards:** Introduce training in explicit AI application that includes case studies, decision-making models, and practical guidelines to ethical use of AI in the entrepreneurship.

6.3.3 Implications for Investors and Funding Institutions

Investors ought to develop their assessment structures and assistance models to consider AI-enhanced businesses:

- a. **Build New Evaluation Heuristics:** Consider shifts to a more modern technical due diligence, with an evaluation of AI orchestration abilities, critical evaluation skill and ethical consciousness of founders.
- b. **Evaluation Rigor:** Not merely that which has been built, but in what and in particular whether the validation processes have been accelerated through the use of AI and whether this method is superficial.
- c. **Consider New Risk Profiles:** Introduce AI-specific risks: Rely on platform dependencies, technical debt in the code created by AI, ethical liabilities, and competitive dynamics in more democratized technical systems.
- d. **Provide AI Specific Support:** More than financial support, ventures support should be offered with the development of AI plans, access to specific expertise, and negotiating over the ethical and legal aspects peculiar to the application of AI.
- e. **Monitor Ecosystem Development:** stay abreast with the rapid evolution of AI tools and platforms and capabilities so as to maintain relevant evaluation frameworks and support strategies.

6.3.4 Policy Considerations

Regulatory and support systems that may facilitate responsible innovation in AI-enhanced entrepreneurship should be kept in mind by policymakers:

- a. **Explain Intellectual Property Constructs:** Clarify or define clear guidelines on how the intellectual property created by AI should be owned, attributed and secured to maintain a balance between the motivation to create and the importance of fair use.
- b. **Fund responsible AI Adoption:** offer funding to support the idea of building responsible AI processes and resolving the ethical problems connected to them through supporting entrepreneurs, and particularly underrepresented ones.
- c. **Encourage Ecosystem Construction:** Facilitate the establishment of AI-specific entrepreneurship including specialized incubators, testing locations and systems of specialists.
- d. **Make AI tools and capabilities accessible and inclusive:** Have policies to ensure that AI tools and capabilities become equally available to the extent that there is

no additional exacerbation of existing disparities in entrepreneurship by technological disparities.

- e. Create Regulatory Goal: Develop regulation mechanisms that can keep up with the rapidly expanding AI capacity, without creating either unreasonable restraint or dangerous time lag in responding to the emergent risks

6.4 Methodological Reflections and Limitations

This research paper employed qualitative research to achieve the level of understanding in a new phenomenon which is multi-faceted. Despite these valuable insights, this approach is limited in nature and this fact should be taken into account when the findings are interpreted and the development of the research is being made:

- a. Temporal Specificity: The study was conducted during a period of an abnormally rapid advancement in the generative AI potential, and the practices and perceptions revealed in the study may evolve dramatically in the next months and years. The outcome is a close-up shot of a rapidly moving target.
- b. Selection of the participants Bias: There was no specific set of criteria that needed to be considered; all that was required was the participants to be the founders who had already adopted the use of generative AI and was willing to share their experiences. This may be biased in favor of overrepresenting founders who rejected, discarded or collapsed on AI tools, which may positively favor the reported results and experiences.
- c. Contextual Constraints: The analysis focused on the digital product enterprises in majorly western environments. Dynamic the AI augmentation may have a considerable range of diversity by hardware, service, social enterprise or different cultural and institution background.
- d. Methodological Trade-offs: Qualitative method provides deep and detailed insight but cannot cause-effect relationships and effect sizes cannot be determined with statistical accuracy. The findings find out the patterns and connections that will be further explored with the help of complementary methodologies.
- e. Researcher Positionality: Since I am a researcher who has researched the area of technology and entrepreneurship, my biases were bound to affect data collection and analysis. As the practices of reflexivity are applied to reduce bias, absolute impartiality is a goal, not an objective.

These limitations also outline useful opportunities of future studies using alternative methodologies, time and context focus.

6.5 Agenda for Future Research

This study presents many fruitful areas of future academic research at the crossroads of AI and entrepreneurship:

6.5.1 Longitudinal Research on AI- Augmented Ventures

Long-term (3-5 years) research tracking would give important insights into; the sustainability of the ventures, which are based on AI foundations, in the long-term, patterns of human-AI collaboration development with the growth of the venture, competitive implications of various strategies of AI adoption and integration in the long term and emerging skills and career experiences of AI-augmented founders.

6.5.2 Projective Corresponding and Comparative Studies

Research in varied settings would help enhance the subject knowledge of the temporal variability of AI augmentation based on:

- a. Geographic and Cultural Situations: What role do institutional setting, access to resources, and cultural orientations play in AI application and implementation in entrepreneurship?
- b. Industry and Sector Differences: What are the differences in dynamics of AI augmentation in the contexts of software, hardware, services, and social entrepreneurship?
- c. Founder Background and Identity: What is the role of such factors as gender, education level, previous experience, and socioeconomic status in the trends and success of AI adoption?
- d. Venture Stage and Type: What are the differences in AI augmentation practices and implications between the solo founders, small teams, venture-backed startups, and corporate ventures?

6.5.3 Quantitative and Experimental Approaches

The full picture could be covered with the help of complementary methodologies:

- a. Big Data Surveys: Measuring adoption levels, preferences of tools, perceived effects and difficulties among greater populations of founders.
- b. Experimental Studies: Controlled experiments on the influence of various AI tools or interfaces or training methods on such business outcomes as the quality of ideas, pivot frequency, or venture survival.

- c. Computational Analysis: The computational Analysis will involve using natural language processing and machine learning to infer patterns in the interactions between AI-founders, prompt evolution or the nature of output.
- d. Network Studies: Understanding the diffusion of AI adoption by entrepreneurial networks and the effects of network position on the pattern and outcome of AI adoption.

6.5.4 Development Projects Theory

Specific theoretical research would help to develop knowledge about:

- a. Models of Human-AI Collaborative Entrepreneurship: Constructing theories that consider the unique nature of distributed agency in the development of ventures.
- b. Ethical Frameworks of AI-Added Ventures: Developing pragmatic, founder-focused solutions to ethical AI application in businesses.
- c. Learning Theories of Augmented Contexts: Constructing models of entrepreneurial learning that reflect mediated, fast tracked and, perhaps, surface learning.
- d. Success Metrics of AI-Augmented Ventures: The elaboration of measurement systems in the specificity and challenges of AI-mediated venture development.

6.5.5 Policy and Ecosystem Studies

The studies that investigate the institutional and policy level could result in the more efficient support framework:

- a. Ecosystem Development: Researching how the entrepreneurial ecosystems can be adjusted to accommodate AI-augmented businesses and the most successful support systems.
- b. Policy Impact Assessment The measurements of the influence of different regulatory policies on the implementation of AI, the innovation outcome, and entity engagement in entrepreneurship equity.
- c. Educational Effectiveness: Assessment of different pedagogic interventions in the training of AI literacy and responsible AI use among the entrepreneurs.
- d. Analysis of Investment Strategy: The analysis of the ways investment approaches is changing concerning AI-enhanced ventures and the most effective evaluation and support strategies.

6.6 Synthesis: Final Conclusion: The Future of AI-Enhanced Entrepreneurship

This study has made it clear that generative AI is a disruptive technology in the early-stage entrepreneurship, especially among non-technical entrepreneurs. The technology has reduced the hurdles in venture formation by a long margin, shortened the development process and broadened the possibilities of creativity. At the same time, it also brings new complications - moral uncertainties, validation issues, the change of skills, and the risk of addiction.

Surprisingly, the most notable observation can be that generative AI does not only make the process of entrepreneurship easier or faster but it transforms it. It changes the basic element of opportunities identification, development and validation. It radically changes the skills needed to be an entrepreneur and rearranges the relationships between founders, technology and markets.

In the future, the trend of AI-enhanced entrepreneurship will probably be predetermined by the following major dynamics:

- a. **The Democratization-Differentiation Tension:** With the increased accessibility of AI technologies, the viable application of AI tools can also be brought to bear competitive advantage as either access or higher functionality of arranging, combining, and using AI in an ethical way.
- b. **The Acceleration-Reflection Balance:** Acceleration to quick prototyping and iteration should be offset by reasonable reflection, validation rigor and strategic direction to avoid the lack of surface innovation.
- c. **The Capability-Complexity Trade-off:** The more AI increases the capabilities of founders, the more complexity is added to the system that may become susceptible to new sources of vulnerability and interdependence that should be approached cautiously.
- d. **Ethical-Commercial Integration:** There is a high probability that the winning ventures will be the ones that take into account the ethical elements in their AI plans throughout, rather than considering ethics as a compliance variable later on.

Lastly, as per this study, the most effective entrepreneurs who will be able to utilize AI in augmented fashion will be the ones who will create what may be referred to as augmented wisdom, which is the capacity to harness the amazing potential of AI and keep the human sense of judgment, moral clarity, and vision. They will be catalysts of technological abundance to productive innovativeness, negotiators of the new

ambiguities, bridges between human and computer-mediated smartness into reasonable, responsible venture generation.

Not only the era of AI-powered entrepreneurship is approaching, but a new reality has already been established. Understanding its dynamics, swirling about its intricacies, and both tapping its possibilities and restraining its threats are the problems of the scholars, practitioners, educators, and policymakers. This study is a step in the right direction as such there is a long way to go before the complete vision and wise stewardship of this radical change in the way new business is defined and developed as well as nurtured can be achieved.

References

- Alabi, M. (2025). Entrepreneurial Ecosystems and the Integration of Technology for Business Success.
- Alalag, A. S. (2024). The history of the artificial intelligence revolution and the nature of generative AI work. *DS Journal of Artificial Intelligence and Robotics*, 2(4), 1-24.
- Alam, A. (2025). Ethical challenges and bias in ai-driven marketing: Educational imperatives and policy perspectives. In *Impacts of AI-Generated Content on Brand Reputation* (pp. 55-108). IGI Global Scientific Publishing.
- Ali, D., Fatemi, Y., Boskabadi, E., Nikfar, M., Ugwuoke, J., & Ali, H. (2024). ChatGPT in teaching and learning: A systematic review. *Education Sciences*, 14(6), 643.
- Altmeyer, K., Kapp, S., Thees, M., Malone, S., Kuhn, J., & Brünken, R. (2020). The use of augmented reality to foster conceptual knowledge acquisition in STEM laboratory courses—Theoretical background and empirical results. *British Journal of Educational Technology*, 51(3), 611-628.
- Asrif, Y., & Fatmi, H. (2024). A cognitive revolution: Generative artificial intelligence in higher education. In: January.
- Ateeq, K., Al Masaeid, T., Selim, H., Oswal, N., Alkubaiusy, A. A. A., Alami, R., & Ajdoobi, S. M. G. A. (2025). Harnessing AI for Faster Innovation: How AI Concept Generation Impacts Development Timelines and Market Agility. *Journal of Posthumanism*, 5(2), 37-50.
- Azizi, N., Akhavan, P., Davison, C., Haass, O., Saremi, S., & Zaidi, S. F. M. (2025). AI-Driven Process Innovation: Transforming Service Start-Ups in the Digital Age. *Electronics*, 14(16), 3240.
- Babu, C. S., & Kishore, K. H. (2025). Generative AI for Source Code Creation: Revolutionizing Cloud-Native Software Engineering. In *Artificial Intelligence for Cloud-Native Software Engineering* (pp. 87-116). IGI Global Scientific Publishing.
- Bandini, F. (2024). The business development of a Startup and the market study of an AI innovative technology.
- Barney, J. (1991a). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. (1991b). Special theory forum the resource-based model of the firm: origins, implications, and prospects. *Journal of Management*, 17(1), 97-98.
- Bawack, R. E., Fosso Wamba, S., & Carillo, K. D. A. (2021). A framework for understanding artificial intelligence research: insights from practice. *Journal of Enterprise Information Management*, 34(2), 645-678.

- Berggren, O. (2025). Micro-SaaS MVPs in Europe: Strategic Considerations Between No-Code and Traditional Development. In.
- Bickley, S. J., Macintyre, A., & Torgler, B. (2025). Artificial intelligence and big data in sustainable entrepreneurship. *Journal of Economic Surveys*, 39(1), 103-145.
- Brandthav, T., & Elzaki Adam, S. (2025). Human-AI Symbiosis in Public Sector: Exploring Delegation and Constant Recalibration of Agency Through Generative AI. In.
- Bratsis, I. (2024). *AI Product Manager's Handbook: Build, Integrate, Scale, and Optimize Products to Grow as an AI Product Manager*. Packt Publishing Ltd.
- Bull, M. (2008). Challenging tensions: critical, theoretical and empirical perspectives on social enterprise. *International Journal of Entrepreneurial Behavior & Research*, 14(5), 268-275.
- Carayannis, E. G., & Von Zedtwitz, M. (2005). Architecting gloCal (global–local), real-virtual incubator networks (G-RVINs) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: lessons learned and best practices from current development and business incubation practices. *Technovation*, 25(2), 95-110.
- Channi, H. K., Sandhu, R., Kaur, M., & Chouhan, S. (2025). Revolutionizing Healthcare Quantum Evaluation of Diabetes Trends in South Asia. 2025 International Conference in Advances in Power, Signal, and Information Technology (APSIT),
- Chen, D., Liu, Y., Guo, Y., & Zhang, Y. (2024). The revolution of generative artificial intelligence in psychology: The interweaving of behavior, consciousness, and ethics. *Acta Psychologica*, 251, 104593.
- Chhabra, R. P., & Patel, S. A. (2025). *Non-Newtonian flow and applied rheology: engineering applications*. Elsevier.
- Christou, P. A. (2023). How to use artificial intelligence (AI) as a resource, methodological and analysis tool in qualitative research? *Qualitative Report*, 28(7).
- Chu, C. C., Chang, J.-J., & Lin, C.-C. (2025). Why does AI hinder democratization? *Proceedings of the National Academy of Sciences*, 122(19), e2423266122.
- Costa, C. J., Aparicio, M., Aparicio, S., & Aparicio, J. T. (2024). The democratization of artificial intelligence: Theoretical framework. *Applied Sciences*, 14(18), 8236.
- Davidsson, P., & Sufyan, M. (2023). What does AI think of AI as an external enabler (EE) of entrepreneurship? An assessment through and of the EE framework. *Journal of Business Venturing Insights*, 20, e00413.
- Eberhagen, S. M. (2024). *Product Development in Tech-Driven Startups: How Do Startups Founded by Non-Technical Founders Differ in Market Capitalization, Capital Efficiency, Revenue, and Time-to-Market Based on Their Approaches to Product Development, Whether Through Co-Founder Collaboration, No-Code*

Tools, or by Outsourcing? An Analysis of the Consumer Tech Industry
Universidade NOVA de Lisboa (Portugal)].

- Edeh, C., & Kappner, L. (2025). Exploring Business Incubators in the Age of Generative Artificial Intelligence: A study of Disruptors and Enablers in the Swedish Entrepreneurship Ecosystem. In.
- Edgington, S., & Kasztelnik, K. (2024). The ethical considerations of business artificial intelligence exploration through the lenses of the global AI technology acceptance model. *Journal of Strategic Innovation and Sustainability*, 19(1), 13-22.
- Elia, G., Margherita, A., & Passiante, G. (2020). Digital entrepreneurship ecosystem: How digital technologies and collective intelligence are reshaping the entrepreneurial process. *Technological Forecasting and Social Change*, 150, 119791.
- ERÇAKAR, M. E., & KAYMAK, Y. (2024). THE NEW PARADIGM SHIFTS IN INNOVATION POLICIES AND THE CHANGING ROLE OF THE STATE. *Journal of Management & Economics Research*, 22(4).
- Fracalvieri, M. (2025). *The Role of Artificial Intelligence in New Venture Creation: A Qualitative Examination* University of Twente].
- Gadde, A. (2025). Democratizing software engineering through generative ai and vibe coding: The evolution of no-code development. *Journal of Computer Science and Technology Studies*, 7(4), 556-572.
- Ganuthula, V. R. R. (2025). AI-enabled individual entrepreneurship theory: redefining scale, capability, and sustainability in the digital age. *Journal of Innovation and Entrepreneurship*, 14(1), 85.
- Giuggioli, G., & Pellegrini, M. M. (2023). Artificial intelligence as an enabler for entrepreneurs: a systematic literature review and an agenda for future research. *International Journal of Entrepreneurial Behavior & Research*, 29(4), 816-837.
- Greco, F. (2023). Startup ecosystems. *Studies on Entrepreneurship, Structural Change and Industrial Dynamics; Springer: Berlin/Heidelberg, Germany*.
- Gupta, V. (2024). An empirical evaluation of a generative artificial intelligence technology adoption model from entrepreneurs' perspectives. *Systems*, 12(3), 103.
- Hagemann, K. (2023). *AI Adoption in Early-Stage Tech Startups: An Exploratory Study* Universidade Catolica Portuguesa (Portugal)].
- Hammerschmidt, T., Stolz, K., & Posegga, O. (2025). Bridging the gap: inequalities that divide those who can and cannot create sustainable outcomes with AI. *Behaviour & Information Technology*, 1-30.
- Hassan, A., Mgala, M., & Hadullo, K. (2024). Unraveling Synergies: Exploring the Intersection of Transformative Quality Education and Generative Artificial Intelligence, A Review of Literature.

- Hill, H., Roadevin, C., Duffy, S., Mandrik, O., & Brentnall, A. (2024). Cost-effectiveness of AI for risk-stratified breast cancer screening. *JAMA Network Open*, 7(9), e2431715-e2431715.
- Jain, A., Vishwakarma, A., & Bhakta, D. (2025). Assessing the impact of artificial intelligence and circular economy on the healthcare sector: An empirical evidence from the Indian context. *Journal of Cleaner Production*, 486, 144315.
- Jain, Y., & Pandey, K. (2025). Transforming Urban Mobility: A Systematic Review of AI-Based Traffic Optimization Techniques. *Archives of Computational Methods in Engineering*, 1-37.
- Kachmar, P. (2024). STATISTICAL ANALYSIS OF TIME ESTIMATION PATTERNS IN AI PROJECT TIMELINES. *Collection of scientific papers «SCIENTIA»*(November 22, 2024; Athens, Greece), 147-150.
- Khuan, H., Maulana, Y. S., Triwijayati, A., Rengganawati, H., & Arifin, Z. (2023). Adaptation and innovation strategies in facing business challenges: A case study in the digital industry. *The Es Economics and Entrepreneurship*, 2(01), 36-42.
- Kott, A., Rössler, A., Groß, R., Kosch, H., & Ries, F. (2025). AI Regulates AI: An Artifact for Automated Risk Assessment. *INFORMATIK 2025*,
- Kraus, J., & Baumann, M. (2024). Trust in Automated Driving and the Three Stages of Trust Framework: Takeaways for Designing Human-Centered AI Applications. In *The Impact of Artificial Intelligence on Societies: Understanding Attitude Formation Towards AI* (pp. 119-132). Springer.
- Kraus, S., Bouncken, R. B., & Yela Aránega, A. (2024). The burgeoning role of literature review articles in management research: an introduction and outlook. *Review of Managerial Science*, 18(2), 299-314.
- Krause, D. (2023). ChatGPT and generative AI: the new barbarians at the gate. *Available at SSRN 4447526*.
- Kubinski, J., & Schuemann, M. (2024). Connecting the Dots: Entrepreneurial Processes in the Age of Generative AI.
- Kumari, N. (2025). Scalability of Generative AI Models: Challenges and Opportunities in Large-Scale Data Generation and Training. *Journal ID*, 9471, 1297.
- Le, P., Tatar, M., Dasarathy, S., Alkhouri, N., Herman, W. H., Taksler, G. B., Deshpande, A., Ye, W., Adekunle, O. A., & McCullough, A. (2025). Estimated Burden of Metabolic Dysfunction–Associated Steatotic Liver Disease in US Adults, 2020 to 2050. *JAMA Network Open*, 8(1), e2454707-e2454707.
- Lin, H., Deng, X., & Song, D. (2025). Research trends of global artificial intelligence application in obstetrics and gynecology from 1999 to 2025: a bibliometric analysis based on web of science. *Journal of Robotic Surgery*, 19(1), 606.

- Ling, S., Zhang, Y., & Du, N. (2024). More is not always better: Impacts of AI-generated confidence and explanations in human–automation interaction. *Human Factors*, 66(12), 2606-2620.
- Liu, H., Cao, Z., Yan, X., Feng, S., & Lu, Q. (2025). Autonomous vehicles: A critical review (2004-2024) and a vision for the future. *Authorea Preprints*.
- Liu, Y., Zhao, L., Tu, B., Wang, J., He, Y., Jiang, R., Wu, X., Wen, W., & Liu, J. (2025). Application of artificial intelligence in echocardiography from 2009 to 2024: a bibliometric analysis. *Frontiers in medicine*, 12, 1587364.
- López-Solís, O., Luzuriaga-Jaramillo, A., Bedoya-Jara, M., Naranjo-Santamaría, J., Bonilla-Jurado, D., & Acosta-Vargas, P. (2025). Effect of generative artificial intelligence on strategic decision-making in entrepreneurial business initiatives: A systematic literature review. *Administrative Sciences*, 15(2), 66.
- Lortie, J., Cox, K., DeRosset, S., Thompson, R., & Kelly, S. (2025). Unpacking the minimum viable product (MVP): a framework for use, goals and essential elements. *Journal of small business and enterprise development*, 32(1), 212-235.
- Lu, M. Y., Chen, B., Williamson, D. F., Chen, R. J., Zhao, M., Chow, A. K., Ikemura, K., Kim, A., Pouli, D., & Patel, A. (2024). A multimodal generative AI copilot for human pathology. *Nature*, 634(8033), 466-473.
- Manheim, K., & Kaplan, L. (2019). Artificial intelligence: Risks to privacy and democracy. *Yale JL & Tech.*, 21, 106.
- Manu, A. (2024). Generative AI as a disruptor. In *Transcending imagination* (pp. 147-162). Chapman and Hall/CRC.
- Marinelli, L., Bartoloni, S., Costa, A., & Pascucci, F. (2023). Exploring the relationship between entrepreneurial ecosystem inputs and outcomes: the role of digital technology adoption. *European Journal of Innovation Management*, 26(7), 635-654.
- Marks, F. F. (2024). *Pivotal or Peripheral: Assessing the Role of Generative Artificial Intelligence in Accelerating Entrepreneurial Success-A Study of Enhancing MVP Development and Product Design* Universidade NOVA de Lisboa (Portugal)].
- Mbah, G. O. (2024). Data privacy in the era of AI: Navigating regulatory landscapes for global businesses. *Int. J. Sci. Res. Anal*, 13(2), 2396-2405.
- MENIS-MASTROMICHALAKIS, O. (2024). Explainable Artificial Intelligence: An STS perspective.
- Modgil, S., Gupta, S., Kar, A. K., & Tuunanen, T. (2025). How could Generative AI support and add value to non-technology companies—A qualitative study. *Technovation*, 139, 103124.
- Neto, G. P. J., Farias da Costa, V. C., & Gaspar, W. B. (2024). Brazil's Artificial Intelligence Plan (PBIA) of 2024: Enabler of AI sovereignty? *The African Journal of Information and Communication*, 2024(34), 1-15.

- Ngwenyama, O., & Rowe, F. (2024). Should we collaborate with AI to conduct literature reviews? Changing epistemic values in a flattening world. *Journal of the Association for Information Systems*, 25(1), 122-136.
- Nicholson, E. J. (2024). *The Editorial Abilities of Artificial Intelligence* [University of Kansas].
- Nicholson, W. K., Silverstein, M., Wong, J. B., Barry, M. J., Chelmow, D., Coker, T. R., Davis, E. M., Jaén, C. R., Krousel-Wood, M., & Lee, S. (2024). Screening for breast cancer: US Preventive Services Task Force recommendation statement. *Jama*, 331(22), 1918-1930.
- Obschonka, M., & Audretsch, D. B. (2020). Artificial intelligence and big data in entrepreneurship: a new era has begun. *Small Business Economics*, 55(3), 529-539.
- Oliveira, G. M. M. d., Almeida, M. C. C. d., Arcelus, C. M. A., Espíndola, L., Rivera, M. A. M., Silva-Filho, A. L. d., Marques-Santos, C., Fernandes, C. E., Albuquerque, C. J. d. M., & Freire, C. M. V. (2024). Brazilian Guideline on Menopausal Cardiovascular Health–2024. *Revista Brasileira de Ginecologia e Obstetrícia*, 46, e-rbgo100.
- Özsungur, F. (2024). *Generating entrepreneurial ideas with AI*. IGI Global.
- Patel, R., Price, N., Bahr, R., Bedrick, S., Bensoussan, Y., Bélisle-Pipon, J.-C., Dorr, D., Jackson, C., Krussel, A., & Salvi Cruz, S. (2024). Summary of Keynote Speeches from the 2024 Voice AI Symposium, presented by the Bridge2AI-Voice Consortium. *Frontiers in Digital Health*, 6, 1484503.
- Puranik, S. S. (2025). Artificial Intelligence (AI) in Omega-3 Fatty Acids. In *Omega-3 Fatty Acids: Keys to Nutritional Health and Disease* (pp. 13-19). Springer.
- Qin, T., Liang, L., Liang, P., & Liang, W. (2025). Can industrial robot utilization drive the total factor productivity of enterprises? *Managerial and Decision Economics*, 46(1), 129-148.
- Rahouli, S. (2025). *Generative artificial intelligence for enhancing problem-solving capabilities of non-technical roles* [Kauno technologijos universitetas].
- Raszke, P., Giebel, G. D., Abels, C., Wasem, J., Adamzik, M., Nowak, H., Palmowski, L., Heinz, P., Mreyen, S., & Timmesfeld, N. (2025). User-Oriented Requirements for Artificial Intelligence–Based Clinical Decision Support Systems in Sepsis: Protocol for a Multimethod Research Project. *JMIR Research Protocols*, 14(1), e62704.
- Reaves, J. (2019). 21st-century skills and the fourth industrial revolution: a critical future role for online education. *International Journal on Innovations in Online Education*, 3(1).
- Ries, J. B. (2011). Skeletal mineralogy in a high-CO₂ world. *Journal of Experimental Marine Biology and Ecology*, 403(1-2), 54-64.

- Ries, S. A., Jindani, R., Olivera, J. A., Munroe, D. A., Stiles, B., & Antonoff, M. B. (2025). The Reality of Representation: Diversity Among Moderators at a National Cardiothoracic Surgery Meeting. *Annals of Thoracic Surgery Short Reports*.
- Ries, T. (2025). From codework poetics to the AI writing scene. *International Journal of Digital Humanities*, 1-36.
- Ries, T. (2025). *Technology Continuance in Health: Development and Application of New Measurement Models*
- Roth, G. A., Nguyen, G., Forouzanfar, M. H., Mokdad, A. H., Naghavi, M., & Murray, C. J. (2015). Estimates of global and regional premature cardiovascular mortality in 2025. *Circulation*, 132(13), 1270-1282.
- Roundy, P. T. (2022). Artificial intelligence and entrepreneurial ecosystems: understanding the implications of algorithmic decision-making for startup communities. *Journal of Ethics in Entrepreneurship and Technology*, 2(1), 23-38.
- Roundy, P. T., & Asllani, A. (2024). Understanding AI innovation contexts: a review and content analysis of artificial intelligence and entrepreneurial ecosystems research. *Industrial Management & Data Systems*, 124(7), 2333-2363.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of management review*, 26(2), 243-263.
- Sarasvathy, S. D. (2003). Entrepreneurship as a science of the artificial. *Journal of Economic Psychology*, 24(2), 203-220.
- Saura, J. R., & Bužinskienė, R. (2025). Behavioral economics, artificial intelligence and entrepreneurship: an updated framework for management. *International Entrepreneurship and Management Journal*, 21(1), 1-33.
- 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.
- Sedkaoui, S., & Benaichouba, R. (2024). Generative AI as a transformative force for innovation: a review of opportunities, applications and challenges. *European Journal of Innovation Management*.
- Sharma, P., & Sengar, A. (2025). Trends and insights in renewable energy research: a comprehensive bibliometric analysis (2000–2023). *International Journal of Energy Sector Management*, 19(4), 751-771.
- Sipola, J., Saunila, M., & Ukko, J. (2023). Adopting artificial intelligence in sustainable business. *Journal of Cleaner Production*, 426, 139197.
- Steinhauser, S. (2025). Understanding decision support adoption by European physicians: shifts in micro-and macro-level influences over time. *Information Technology and Management*, 1-35.

- Stige, Å., Zamani, E. D., Mikalef, P., & Zhu, Y. (2024). Artificial intelligence (AI) for user experience (UX) design: a systematic literature review and future research agenda. *Information Technology & People*, 37(6), 2324-2352.
- Stjernfeldt, T., Möttus, D., & Kemenes Kasza, A. (2025). Drivers and Barriers to AI tool adoption in Technical vs. Non-Technical Departments.
- Suddaby, R., Bruton, G. D., & Si, S. X. (2015). Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, 30(1), 1-10.
- Talebi, K., Ghasemi, Z., Nobari, N., & Seraj, M. (2025). Artificial Intelligence Adoption by Digital Startups in Decision-Making within Uncertain Business Environments. In *Entrepreneurship-Digital Transformation, Education, Opportunities and Challenges*. IntechOpen.
- Tang, X., & Zainal, S. R. (2024). Artificial Intelligence and Its Impact on Educator's Innovative Behavior: A Survey Exploration Guided by Rogers' Theory of Innovation. In: doi.
- Teutloff, J. K. (2025). *Founders' Perceptions About Using AI-Generated Synthetic Data for Customer Validation in Early-Stage Technology Startups* [Marymount University].
- Thomas, A. (2020). Convergence and digital fusion lead to competitive differentiation. *Business Process Management Journal*, 26(3), 707-720.
- Townsend, B. A., Hodge, V. J., Richardson, H., Calinescu, R., & Arvind, T. (2025). Cautious optimism: public voices on medical AI and sociotechnical harm. *Frontiers in Digital Health*, 7, 1625747.
- Townsend, D. M., & Hunt, R. A. (2019). Entrepreneurial action, creativity, & judgment in the age of artificial intelligence. *Journal of Business Venturing Insights*, 11, e00126.
- Truss, M., & Schmitt, M. (2025). Human-centered ai product prototyping with no-code automl: Conceptual framework, potentials and limitations. *International Journal of Human-Computer Interaction*, 41(15), 9304-9319.
- Uddin, M., Arfeen, S. U., Alanazi, F., Hussain, S., Mazhar, T., & Arafatur Rahman, M. (2025). A Critical Analysis of Generative AI: Challenges, Opportunities, and Future Research Directions. *Archives of Computational Methods in Engineering*, 1-31.
- Usman, F. O., Eyo-Udo, N. L., Etukudoh, E. A., Odonkor, B., Ibeh, C. V., & Adegbola, A. (2024). A critical review of ai-driven strategies for entrepreneurial success. *International Journal of Management & Entrepreneurship Research*, 6(1), 200-215.
- Wach, K., Duong, C. D., Ejdy, J., Kazlauskaitė, R., Korzynski, P., Mazurek, G., Paliszkiwicz, J., & Ziemia, E. (2023). The dark side of generative artificial

intelligence: A critical analysis of controversies and risks of ChatGPT. *Entrepreneurial Business and Economics Review*, 11(2), 7-30.

Yeh, R. W., Shlofmitz, R., Moses, J., Bachinsky, W., Dohad, S., Rudick, S., Stoler, R., Jefferson, B. K., Nicholson, W., & Altman, J. (2024). Paclitaxel-coated balloon vs uncoated balloon for coronary in-stent restenosis: the AGENT IDE randomized clinical trial. *Jama*, 331(12), 1015-1024.

Zahra, S. A., Li, Y., Agarwal, R., Barney, J. B., Dushnitsky, G., Graebner, M. E., Klein, P. G., & Sarasvathy, S. (2024). Developing theoretical insights in entrepreneurship research. In (Vol. 18, pp. 3-20): Wiley Online Library.

Zhu, Q., & Zhang, H. (2022). Teaching strategies and psychological effects of entrepreneurship education for college students majoring in social security law based on deep learning and artificial intelligence. *Frontiers in psychology*, 13, 779669.

Annexure

Research Questionnaire (Interviews)

Name :-----

Age:-----

Gender:-----

Country: -----

1. How did you initially become aware of generative AI and reasoned to incorporate it into the process of developing your MVPs?
2. What are the specific generative AI tools or platforms you are using in the creation of the MVP, and what did you select them?
3. What were the problems that you encountered during the implementation of AI into your MVP?
4. What were the transformations in the generative AI regarding product design, prototyping or decision-making at the MVP stage?
5. What do you consider to be the perceived advantages of rapid prototyping and MVP development with generative AI in your startup?
6. How far do you think the concept of generative AI helped to enhance your product-market fit strategy?
7. What are some of the risks or difficulties that you link to generative AI usage during the MVP development?
8. Are you concerned about being over-reliant on AI during your MVP development? How do you deal with this risk then?
9. What are your impressions of generative AI in regards to the acceleration of implementation and decision-making in your MVP development?
10. Has AI affected the way you make decisions as an entrepreneur, specifically with regard to a pivot or a course correction?
11. How have AI applications altered your daily operations or approaches to running the startup?
12. What do you think you needed either support-wise or resource-wise to successfully integrate generative AI into your MVP development process?
13. What alternatives do you make to make sure that your application of AI tools is ethical, especially when it comes to product development and interaction with users?

14. Do you believe that the overall attitude towards AI was another factor that made you choose it when developing your MVP? How so?
15. What do you see as the use of generative AI in the development of early-stage startups in the future?