

From Hypothesis to Value: A Lean approach to financial education

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DIVISION OF INNOVATION | DEPARTMENT OF DESIGN SCIENCES
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MASTER THESIS



From Hypothesis to Value: A Lean approach to financial education

Research-based application of the Lean Startup methodology in early-stage venture design

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Abstract

This thesis explores how hypothesis-driven experimentation can support the early validation of entrepreneurial ideas in uncertain contexts. While the empirical focus is placed on digital financial education for young professionals, the broader objective is to uncover unmet needs and assess whether structured testing can support informed decision-making in the early stages of venture design, reducing the risk of pursuing misaligned or unviable solutions.

The methodology follows a theoretical and iterative process informed by Lean Startup concepts, including tools such as the *Market Opportunity Navigator* and *Business Model Canvas*. Four core hypotheses were defined and tested, revealing consistent behavioural patterns of confusion, avoidance and low engagement with existing solutions. Based on these findings, the thesis develops a validated business model and a conceptual *Minimum Viable Product*.

The results suggest that structured hypothesis testing can provide a rigorous foundation for early-stage ventures operating in emotionally complex domains such as personal finance. The study also contributes to the academic discourse by integrating user insights with structured experimentation, while maintaining theoretical rigour. Although no functional product was developed, the thesis sets a solid empirical and conceptual basis for future implementation. Ultimately, it proposes a trajectory in which financial education becomes more adaptive, emotionally intelligent and rooted in users' everyday decision-making processes.

Keywords: Lean Startup, Early-stage venture design, Entrepreneurial experimentation, Digital financial education, Financial decision-making.

Sammanfattning

Denna uppsats undersöker hur hypotesdriven testning kan stödja tidig validering av entreprenöriella idéer i osäkra sammanhang. Det empiriska fokuset ligger på digital finansiell utbildning för unga yrkesverksamma, med målet att identifiera ouppfyllda behov och bedöma om strukturerad testning kan främja välinformerat beslutsfattande i affärsutvecklingens tidiga faser och minska risken för olämpliga lösningar.

Metoden följer en teoretisk och iterativ process inspirerad av Lean Startup-koncept, med verktyg som *Market Opportunity Navigator* och *Business Model Canvas*. Fyra hypoteser definierades och testades, vilket visade återkommande mönster av förvirring, undvikande och lågt engagemang i befintliga lösningar. Utifrån dessa insikter utvecklas en validerad affärsmodell och ett konceptuellt *Minimum Viable Product*.

Resultaten visar att hypotesdriven testning kan ge en stabil grund för tidiga affärsinitiativ inom emotionellt komplexa områden såsom privatekonomi. Studien bidrar till det akademiska samtalet genom att förena användarinsikter med strukturerad experimentering och teoretisk stringens. Även om ingen funktionell produkt utvecklades lägger uppsatsen en solid grund för framtida implementering. Slutligen föreslås en riktning där finansiell utbildning blir mer adaptiv, emotionellt intelligent och förankrad i användarnas vardagliga beslut.

Nyckelord: Lean Startup, Tidig affärsutveckling, Entreprenöriell experimentering, Digital finansiell utbildning, Privatekonomiskt beslutsfattande

Preface

This thesis was conducted within the framework of an agreement between my home university, Escola Tècnica Superior d'Enginyeria Industrial de Barcelona and my host institution, Lunds Tekniska Högskola. This collaboration gave me the opportunity to carry out my thesis in Sweden, resulting in a unique experience.

Undertaking this research has allowed me to explore in depth a field that increasingly fascinates me: the world of business. As an industrial engineer, I was eager to focus this project on the process of developing ideas from the ground up, combining technical knowledge with entrepreneurial thinking.

I am grateful to the Design Sciences team at the IKDC and to my supervisors, Torben and Silvia, for their guidance and trust, which deepened my understanding of both the rewards and demands of entrepreneurship.

Above all, I wish to express my deepest gratitude to my family and my partner, whose unconditional support, encouragement and belief in me have been my greatest source of strength. Even from afar, they have celebrated every step of this journey. I hope this work makes them as proud of me as I am grateful for them.

I am also deeply thankful to friends, colleagues and the interview participants who made the empirical part of this thesis possible. Their thoughtful advice and willingness to share their experiences have inspired me to give my very best and reminded me that realising one's potential is, ultimately, a personal choice.

Lund, August 2025

Víctor Barrés Lobato

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1 Introduction

1.1 Background

Entrepreneurship has long been a fundamental driver of economic dynamism and societal progress. However, its consolidation as a formal academic discipline is a relatively recent development. While the theoretical foundations of corporate management were laid in the early twentieth century—through contributions from figures such as Frederick Taylor (1911), Henri Fayol (1949) and later Peter Drucker (1954)—entrepreneurial theory only began to gain academic legitimacy towards the end of the twentieth century. In particular, the seminal work of Shane and Venkataraman (2000) helped to position entrepreneurship as a distinct field of research, emphasising the role of opportunity identification and exploitation under conditions of uncertainty.

Despite this growing body of knowledge, the reality faced by aspiring entrepreneurs remains daunting. High failure rates continue to characterise the early stages of most ventures. According to data from the U.S. Bureau of Labor Statistics (2023), approximately 20% of new businesses fail within their first year and nearly 50% do not survive beyond five years. Other studies suggest that only one in ten startups survive beyond a decade, compared to around 30% for conventional small businesses (Faloppa, 2025).

One particularly salient area where these shortcomings are evident is in the domain of personal finance (Jenkins, 2021). In recent years, individuals have been granted unprecedented access to financial tools, platforms and content, facilitated by the digital transformation of the financial services sector. However, this democratisation of financial information has not translated into better financial behaviour. On the contrary, a significant portion of the population continues to struggle with basic financial decision-making, budgeting and long-term planning. According to the OECD (2020), financial literacy remains low across most advanced economies, particularly among younger demographics.

This paradox—abundant access yet deficient outcomes—raises critical questions about how financial knowledge is acquired, internalised and applied. It also underscores the need for innovative, user-centred approaches to financial education that go beyond static content delivery. In this context, the present thesis proposes to integrate insights from entrepreneurial design and behavioural economics to address the challenge of improving financial literacy among young professionals.

1.2 Purpose

The purpose of this thesis is to explore how entrepreneurial methodologies—particularly those grounded in iterative experimentation and user-centric design—can be effectively applied to the conceptual development of digital solutions in the field of financial education. While the relevance of financial literacy has been widely acknowledged by policymakers and educators, traditional approaches often fail to resonate with younger audiences, who increasingly rely on mobile technologies, real-time interactions and personalised experiences to engage with financial content.

In response to this challenge, the present research adopts a design-driven and exploratory perspective aimed at addressing the specific needs of young professionals facing financial complexity and behavioural inertia. By applying principles from the *Lean Startup methodology* (Ries, 2011), this thesis seeks to conceptually design and validate, through the formulation and testing of hypotheses, a digital solution aimed at enhancing financial literacy through contextualised and adaptive learning. The process is carried out entirely at a theoretical level, without the development of a functional prototype. Nevertheless, the project aspires to establish a robust foundation that may guide and support future real-world implementation under suitable conditions.

Building on this approach, the thesis employs qualitative interviews, hypothesis formulation and low-fidelity prototyping to connect conceptual frameworks with practical validation tools. In doing so, it contributes both to the academic literature on entrepreneurial design and to the practical discourse surrounding digital financial education, particularly in contexts of high uncertainty and fragmented user behaviour.

1.3 Problem description and research questions

Despite the increasing availability of structured entrepreneurial methodologies, a significant number of early-stage ventures continue to be developed on the basis of intuition, imitation or informal experimentation. This disconnection between theory and practice results in a high prevalence of misaligned product ideas, limited user traction and ultimately, venture failure. As highlighted in recent literature, the problem is not a lack of innovative intent, but rather the absence of a rigorous process through which ideas can be tested, adapted and validated before market entry (González M., Terzidis & Lütz, 2024).

This issue is especially pronounced in domains such as financial education: while numerous applications claim to improve users' financial literacy, few succeed in fostering meaningful learning or behavioural change.

The present thesis responds to this dual challenge: the overreliance on intuition in venture design and the lack of behaviourally effective financial education tools. Its focus is not on building a finished product, but on determining whether young professionals face unmet financial education needs and on examining how hypothesis-driven experimentation can be used to validate potential digital solutions at a pre-product stage. While Lean Startup (Ries, 2011) provides an important conceptual foundation, the emphasis lies on structured hypothesis testing as a scientific and iterative approach to reduce uncertainty and generate evidence about problem–solution fit. Based on this framing, the research is guided by the following questions:

RQ1: What behavioural and emotional barriers prevent young professionals from engaging with existing financial education tools?

RQ2: How can structured hypothesis testing support the early validation of a digital financial education solution?

RQ3: Can early-stage theoretical validation generate actionable insights that reduce the risk of developing irrelevant or ineffective products?

1.4 Related work

Early contributions focused on opportunity discovery (Shane & Venkataraman, 2000), while later streams—such as *Effectuation* introduced by Sarasvathy (2001) and *Bricolage* described by Baker and Nelson (2005)—emphasised action under uncertainty and resource constraints. More recently, Alvarez and Barney (2007) proposed a dual perspective contrasting discovery with opportunity creation, a distinction that has shaped much of the theoretical discourse on startup formation.

Within this broader field, the Lean Startup methodology, as described by Ries (2011), has gained notable traction both in practice and academia. Grounded in iterative experimentation, hypothesis testing and rapid feedback loops, it proposes a shift away from traditional business planning in favour of continuous learning. Its principles are widely disseminated among startup founders, incubators and innovation courses, yet the academic literature remains divided on its theoretical robustness. Ghezzi (2019) and Shepherd and Gruber (2020) have examined its empirical implementation in digital ventures, while Felin et al. (2024) have constructively criticised the method’s tendency toward “blind empiricism” when not guided by theoretical reasoning. The emerging Theory-Based View (TBV) responds to this concern by advocating for an approach in which hypotheses are derived from conceptual frameworks, not merely from observation. This debate reveals a fundamental tension between the agility demanded by startup contexts and the rigour required for transferable learning.

Bridging this methodological gap is particularly relevant in the domain of financial education, where digital tools—from budgeting apps to gamified lessons and automated guidance—aim to influence complex, deeply rooted behaviours. However, empirical studies suggest that most solutions remain either too generic or too complex to generate lasting behavioural change (Kapoula et al., 2024). As Andreou and Anyfantaki (2021) argue, effective financial education requires not only timely interventions but also adaptive content tailored to users’ cognitive and emotional states.

Despite this convergence of needs, relatively few studies examine how structured entrepreneurial methodologies can inform the design of financial education tools. Existing literature tends to treat the two domains—startup methodology and educational technology—as separate. This thesis aims to bridge that gap by applying Lean Startup (Ries, 2011) not merely as a development framework, but as a scientific approach to designing behaviourally grounded financial solutions. In doing so, it contributes to an emerging body of work that seeks to combine entrepreneurial experimentation with pedagogical rigour, particularly in settings characterised by uncertainty, emotional complexity and fragmented user behaviour.

1.5 Limitations

Several limitations have been identified in the course of this research. The most obvious, almost by definition, is the constraint of time. While many of the limitations listed below could reasonably be attributed to this factor, no attempt has been made to conceal them by invoking time constraints. Rather, the project has been granted sufficient time to advance as far as possible toward a real-world implementation—just up to the threshold where conceptual rigour meets practical readiness.

One major limitation lies in the fact that the project remains at a conceptual stage. Although the thesis includes low-fidelity prototyping, a video-based conceptual Minimum Viable Product and several iterative cycles of hypothesis validation, no functional or interactive version of the solution has been developed or tested. This naturally restricts the evaluation of usability, retention and real user behaviour in a dynamic environment.

Another important limitation concerns the data collection process. The methods described in [Chapter 4](#) were fully completed and were sufficient for early-stage hypothesis testing. However, due to time constraints, more extensive or longitudinal approaches—such as A/B testing or behavioural tracking—were not feasible.

A further limitation relates to the territorial scope of the research. The empirical validation efforts took place primarily in Spain and, to a lesser extent, Sweden. Nevertheless, Lund and its surroundings constitute an international hub that attracts students and professionals from hundreds of countries, which allowed the inclusion of participants with diverse worldwide backgrounds. This unintended diversity added richness to the data, though it does not compensate for the absence of systematic cross-cultural comparison.

Finally, the study relies heavily on self-reported data, both in the survey and in the interviews. This introduces the potential for bias, as participants' responses are subject to cognitive distortions, social desirability effects and memory limitations. As a result, there is a risk that certain perceptions—particularly regarding financial behaviours or app engagement—do not fully reflect actual patterns.

1.6 Relevance for sustainable development

This thesis aligns itself with the broader agenda of sustainability by addressing two interrelated challenges: financial exclusion and ineffective innovation processes. Financial education is increasingly recognised as a fundamental skill for navigating the complexities of modern life, yet it remains unequally distributed and often poorly adapted to individual realities. By seeking to design a behaviourally informed, accessible and scalable solution, this project embraces a socially responsible vision of entrepreneurship—one that places lasting impact above short-term gain.

The methodological foundation of the thesis, grounded in Lean Startup (Ries, 2011) and hypothesis-driven design, further supports the principles of sustainable development. It promotes the efficient use of resources—intellectual, temporal and human—by encouraging early testing, continuous learning and value-driven iteration. Although the full sustainability implications of the proposed solution are explored in [Chapter 8](#), the project's orientation from the outset reflects a deliberate attempt to contribute meaningfully to long-term financial wellbeing, educational equity and responsible digital innovation.

1.7 Ethical considerations

Two key ethical considerations were taken into account in relation to participant interaction. The first concerns the anonymity of all individuals involved in the interviews and surveys described in later chapters. No personally identifiable information was collected at any stage of the research process, thereby eliminating the need for additional data protection protocols.

The second relates to the objectivity and neutrality maintained throughout the validation process. Although the author, as project lead, was naturally invested in the success of the proposed solution, all interactions with participants were conducted with full transparency and impartiality. Efforts were made to ensure that individuals felt comfortable, unpressured and free to express their thoughts without influence or expectation.

These considerations were shaped not only by the current scope of the thesis, but also by the project's potential future development. Given that *money* remains a culturally sensitive and emotionally charged topic, it is expected that any continued testing of the solution will need to proceed with heightened ethical awareness and a respectful approach to users' financial experiences.

1.8 Outline of the thesis

This thesis is structured to progressively connect theoretical exploration with applied entrepreneurial design, combining conceptual tools, methodological rigour and empirical learning in an iterative flow.

The second chapter lays the theoretical foundation by critically engaging with the Lean Startup methodology, as described by Ries (2011). Rather than offering a neutral summary, it examines the scientific robustness and limitations of Lean Startup as an entrepreneurial framework, while presenting the core tools that support it—such as the Business Model Canvas (*BMC*) developed by Osterwalder and Pigneur (2010) and the Market Opportunity Navigator (*MON*) introduced by Gruber & Tal. This chapter sets the stage for an informed and reflective application of these tools in the context of digital financial education.

The third chapter builds on this foundation by constructing the initial business model of the proposed solution. Using the conceptual instruments from Chapter 2, it defines the pre-experimental structure and assumptions of the venture.

Chapter 4 outlines the methodology used to validate these assumptions. It details the formulation of hypotheses, the rationale behind them and the qualitative and quantitative methods employed to test them with prospective users.

Chapter 5 presents the empirical results obtained through interviews, surveys and scenario testing. The insights gathered on user needs, behaviours and emotional responses serve as a basis for redesigning the business model and imagining its practical implementation.

Chapter 6 revisits the original business model in light of the empirical findings. It incorporates strategic changes to the model's structure, focusing on alignment with user behaviour, emotional relevance and learning effectiveness.

Chapter 7 introduces a conceptual Minimum Viable Product, a design tactic popularised by the Lean Startup movement and articulated by Eric Ries (2011), which integrates the validated learnings into a coherent product vision. Though not functional, this Minimum Viable Product reflects the core pedagogical and behavioural logic of the proposed solution and acts as a testable communication artefact.

The final chapters offer a broader discussion of the project's implications, limitations and potential future development. The thesis concludes with a personal reflection on the entrepreneurial journey and the role of scientific thinking in shaping responsible innovation. This reflection also serves to frame future iterations and real-world applications of the project.

2 Theory

Although this chapter may resemble a standard theoretical overview, it plays a strategic role in defining the methodological direction and scope of the thesis. By examining the core principles of the Lean Startup method (Ries, 2011) and contrasting them with complementary and competing frameworks, the aim is not only to clarify what Lean Startup offers, but also to critically assess its underlying assumptions, practical tools and potential blind spots. This conceptual foundation supports the design choices made in later chapters and ensures that the empirical logic rests on a well-grounded theoretical base.

Rather than limiting the discussion to abstract concepts, the chapter incorporates insights from empirical research, conceptual critiques and applied frameworks to identify key chances and pitfalls associated with the Lean Startup methodology (Ries, 2011). Each contribution is examined through a critical lens, with the goal of extracting actionable lessons for the development of a hypothetical startup framework.

2.1 Introduction to entrepreneurial methodologies

The conceptual landscape of entrepreneurship has undergone a profound transformation over the past few decades. Initially dominated by rational, opportunity-discovery frameworks, the field began shifting in the early 2000s towards more action-oriented and heuristic perspectives. One such approach, known as *Effectuation*, challenges the notion that entrepreneurs operate with clearly defined goals. Instead, it posits that they start with a given set of means—who they are, what they know and whom they know—and co-create opportunities through iterative engagement with uncertainty (Sarasvathy, 2001). Closely related is the theory of *Bricolage*, which highlights how entrepreneurs creatively recombine scarce and available resources to solve problems and exploit opportunities in novel ways (Baker & Nelson, 2005).

While often perceived as a constraint, resource scarcity may in fact become a source of competitive advantage. Ghezzi (2018) notes that such improvisational approaches can lead to highly innovative solutions that deviate from conventional pathways. Moreover, entrepreneurial behaviour is increasingly understood to be shaped by cognitive limitations—a view grounded in the seminal concept of bounded rationality, as introduced by Simon (1956), which suggests that individuals make decisions under constraints of time, information and cognitive capacity. More recently, Blank and Eckhardt (2023) have expanded on this perspective in the entrepreneurial context.

Together, these more flexible and adaptive approaches laid the foundation for a deeper distinction between two dominant entrepreneurial logics, based on the nature of opportunities themselves. According to Alvarez and Barney (2007), the *Discovery* view assumes that opportunities exist independently of the entrepreneur and can be identified through systematic search.

In contrast, the *Creation* view holds that opportunities are not pre-existing but emerge through dynamic interaction between the entrepreneur and an evolving environment.

This conceptual distinction has important implications for how ventures are initiated and developed, aligning closely with the contrast between predictive planning and emergent learning highlighted in more recent contributions (Ghezzi, 2018).

Within this broader shift towards iterative and learning-oriented frameworks, the *Customer Development model* was introduced by Steve Blank (2005), first presented in his seminal work *The Four Steps to the Epiphany*. This approach broke with the traditional business plan paradigm by arguing that startups should not begin with execution, but rather with a structured process of customer discovery, validation and learning. The primary aim of this model is to determine who the customers are, what they need and whether they are willing to pay for a solution (Ghezzi, 2018). Customer Development emphasises that the initial goal of a startup is not to deliver a fully developed product, but to identify a repeatable and scalable business model through direct interaction with potential users. In this logic, companies are encouraged to abandon excessive pre-planning and instead engage with customers at the earliest possible stage (Blank & Eckhardt, 2023), delaying scaling efforts until sufficient validation has been achieved (Blank, 2013). Planning, accordingly, should emerge from testable assumptions rather than speculative forecasts, which rarely prove reliable in practice (McGrath & MacMillan, 2000).

Furthermore, in order to understand who their customers truly are, startups are encouraged to get out of the building (Blank, 2013) and test their hypotheses directly with real users (Ries, 2011; Blank, 2013). This methodological innovation laid the foundation for the Lean Startup approach (Ries, 2011), which constitutes the central framework of this thesis.

Lean Startup integrates Blank's Customer Development logic (Blank, 2005), the principles of the *Toyota Production System*, as articulated by Ohno (1988) and the mindset of *agile software development* introduced by Beck et al. (2001).

Although its premises have been debated in recent literature, particularly by Felin, Gambardella and Zenger (2024), Lean Startup generally assumes the pursuit of a single entrepreneurial initiative that evolves incrementally through iterative experiments and strategic pivots (Ries, 2011; Contigiani & Levinthal, 2019). Ries (2016) defines a pivot as a structured change in strategic direction without a change in overall vision, guided by insights from customer feedback (Contigiani & Levinthal, 2019).

Lastly, entrepreneurs are increasingly being viewed as scientists, particularly in contexts characterised by high uncertainty and limited information, as suggested by Zellweger and Zenger (2022). Recognising that entrepreneurial opportunities are inherently difficult to identify *ex ante*, founders are encouraged to rely on systematic hypothesis testing to guide decision-making (Camuffo et al., 2020).

Due to time pressure and incomplete data, entrepreneurs often default to *System 1 thinking*—fast, intuitive and automatic reasoning processes (Kahneman, 2011; York & Danes, 2014). While this can be efficient, it frequently results in cognitive biases and flawed judgements. As Kahneman (2011) notes, expert intuition tends to be reliable only in environments that are regular and predictable—conditions that rarely describe startup settings. In such uncertain contexts, relying exclusively on intuition is insufficient, which underlines the value of adopting a scientific mindset. This approach can strengthen not only the accuracy of decisions but also the coherence and innovativeness of entrepreneurial ideas (Camuffo et al., 2024).

2.2 The Lean Startup methodology

Startups are often portrayed as operating within chaotic, unstable and unstructured environments (Ries, 2011; Blank, 2013; Gruber & Tal, 2017; Leatherbee & Katila, 2020; Shepherd & Gruber, 2020). Even when a product appears promising and the underlying idea shows potential, the absence of a predefined framework can hinder coordination and focus within the founding team. It is in response to this need for clarity and structure that the methodology at the core of this thesis emerges: an approach specifically designed to introduce process and coherence in the early, uncertain stages of venture creation. This methodology is known as *The Lean Startup* (Ries, 2011).

The Lean Startup methodology, developed and popularised by entrepreneur Eric Ries, challenges the conventional myth that entrepreneurial success stems solely from determination, brilliance, timing and the quality of a product. In 2011, Ries introduced one of the foundational pillars of this approach: the *Build–Measure–Learn* feedback loop. Before the emergence of this model, entrepreneurs frequently invested significant time and resources into building products that ultimately failed upon market entry—often because they misunderstood their target audience. The Build–Measure–Learn cycle addresses this uncertainty by minimising the time between action and feedback (Blank, 2013), enabling entrepreneurs to adapt rapidly and refine their assumptions. Its value lies in facilitating continuous, data-driven iteration while reducing resource waste and operational ambiguity (Ghezzi, 2018; Shepherd & Gruber, 2020).

2.2.1 Market Opportunity Navigator

Before applying the Lean Startup methodology, it is useful to introduce the *Market Opportunity Navigator* (Gruber & Tal, 2017), a strategic tool designed to identify, map and prioritise entrepreneurial opportunities. Rather than committing prematurely to a single, fixed idea, this framework encourages entrepreneurs to maintain a portfolio of options and to evaluate them systematically based on strategic fit, market potential and implementation difficulty. The opportunity a startup decides to pursue defines the domain in which it will compete, create value and ultimately aim to achieve viability (Gruber et al., 2013). For this reason, entrepreneurs benefit from adopting a wide-lens perspective that enables a more distant or global search for where to play. Moreover, recognising the existence of multiple viable opportunities can prompt more agile early-stage decisions—such as selecting a versatile brand name or hiring talent with adaptable skills—which enhance long-term flexibility (Gruber & Tal, 2017). Interestingly, the framework also stresses the importance of identifying what not to pursue as early as possible, encouraging founders to discard low-potential options early in the process (Collis, 2016).

The methodology consists of three sequential steps, designed to guide startups in the exploration and selection of viable market opportunities (Gruber & Tal, 2017). These are: (i) generating a market opportunity set, by searching broadly for diverse customer needs that the startup could potentially address; (ii) evaluating the attractiveness of these opportunities, through a deep assessment of external and internal factors; and (iii) designing an agile focus strategy, to decide where to concentrate initial efforts while maintaining strategic flexibility. Each step promotes strategic clarity without prematurely narrowing the venture's scope.

To assess attractiveness, the methodology introduces a structured framework with six evaluation criteria (Gruber & Tal, 2017). Three are associated with the potential of an opportunity: (i) a compelling reason to buy, which captures the presence of unmet needs and the superiority of the proposed solution; (ii) market volume, referring to the current and projected size of the opportunity; and (iii) economic viability, focusing on margins, payment capacity and customer stickiness. The remaining three criteria reflect the associated challenges: (i) implementation obstacles; (ii) time to revenue, accounting for development and commercialisation delays; and (iii) external risks, such as behavioural barriers, regulation or competitive threats. Each factor is scored using a scale from *Low* to *Super High*, which then feeds into a visualisation known as the *Attractiveness Map*.

The Attractiveness Map positions each market opportunity based on its combined scores of potential and challenge. It segments alternatives into four strategic quadrants: Gold Mine (high potential, low challenge), Moon Shot (high potential, high challenge), Quick Win (low potential, low challenge) and Questionable (low potential, high challenge). This graphical representation facilitates prioritisation and supports strategic alignment.

The final step in the framework—designing an agile focus strategy—considers how the prioritised opportunity relates to the remaining options (Gruber & Tal, 2017). Two comparative axes are proposed: product relatedness (technical or infrastructural overlap) and market relatedness (similarity in customer profiles, channels or communication logic). These dimensions help identify potential Backup and Growth opportunities, enhancing the startup’s adaptability. To operationalise the strategy, each opportunity is assigned a status: Pursue Now, Keep Open or Place in Storage.

This tool is particularly relevant in contexts of uncertainty, where founders must balance early execution with the ability to pivot as new information emerges. The structured evaluation process helps avoid early focus bias and supports the discovery of overlooked or adjacent opportunities that may become strategically important over time.

The empirical application of this framework to the case developed in this thesis—focused on improving financial capability and decision-making through digital education—is presented in detail in [Chapter 3](#).

2.2.2 Business Model Canvas

While the Market Opportunity Navigator assists entrepreneurs in identifying “where to play,” it is equally important to determine “how to play” within the chosen opportunity space (Shepherd, 2018). A central tool within the Lean Startup approach is the *Business Model Canvas* (Osterwalder & Pigneur, 2010), which enables founding teams to articulate and visualise their assumptions across nine predefined building blocks. This structured formulation of hypotheses constitutes a core element of Ries’s methodology and provides a practical foundation for experimental design (Leatherbee & Katila, 2020). Early-stage teams, particularly in highly uncertain environments, are unlikely to select an optimal business configuration at the outset (Contigiani & Levinthal, 2019). Therefore, before committing significant resources to a final product or service, it is essential to define and test specific scenarios in order to validate—or falsify—the assumptions underpinning the model. Regardless of the outcome, this process yields critical insights into customer needs, behaviours and willingness to pay.

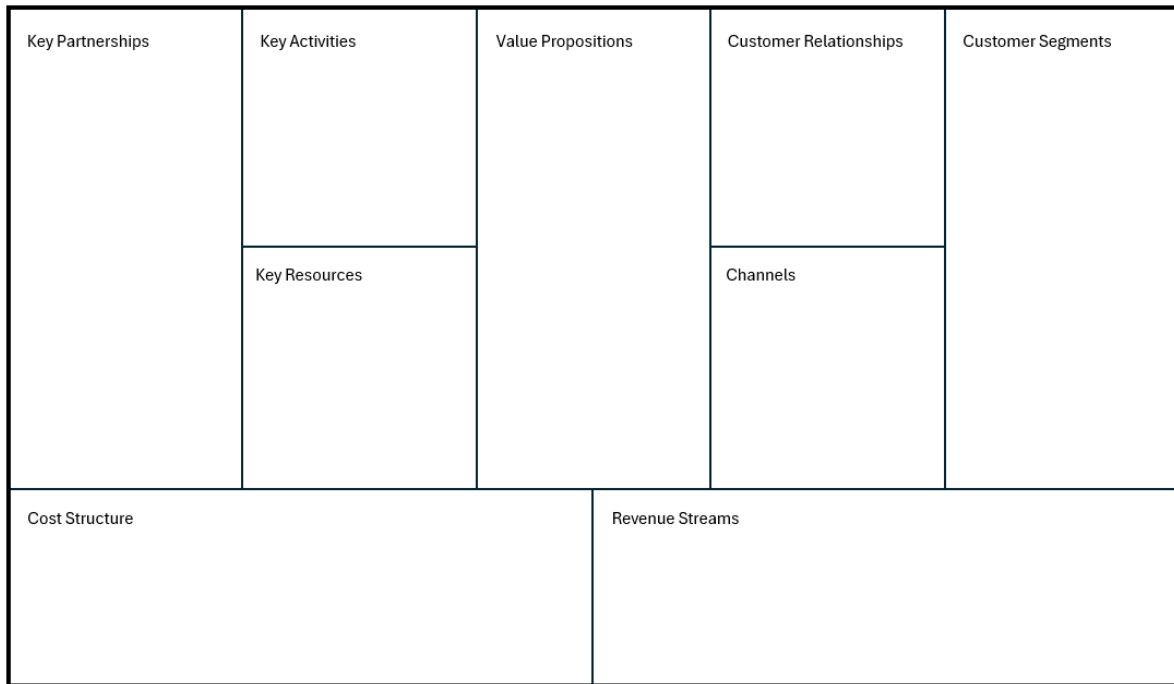


Figure 2.2.2 Business Model Canvas structure

2.2.3 Minimum Viable Product

To validate or reject these hypotheses, Ries emphasises the role of experimentation as a cornerstone of the Lean Startup approach (Ghezzi, 2018). A key principle in this process is the prioritisation of observation over direct inquiry, since the latter frequently produces biased responses and misleading interpretations (Kahneman, 2011). Experiments need not involve fully developed products or services; rather, they should be deliberately designed to test the existence of real demand or interest in the most efficient and informative way possible (Camuffo et al., 2024).

Within this context, the concept of the *Minimum Viable Product* (MVP) is introduced as a practical instrument for hypothesis testing (Ries, 2011).

An MVP refers to the simplest functional version of a product that contains only the essential features required to validate—or invalidate—a specific assumption. It intentionally avoids overdevelopment or premature optimisation, aiming instead to test key hypotheses under real market conditions as rapidly and efficiently as possible. The primary objective is not to deliver a finished or refined solution, but to maximise validated learning while conserving time and resources.

Several forms of MVPs can be employed depending on the nature of the hypothesis and the stage of development. One widely cited example is the *video MVP*, famously used by *Dropbox*[®] in its early stages. This approach involves presenting a brief video that demonstrates the product's core functionalities to potential users, without developing the actual product. By showcasing a compelling vision, startups can quickly gauge interest, gather early feedback and iterate based on real reactions—all without investing in a functional prototype (Felin et al., 2024).

Another variation is the *concierge MVP*, in which the product or service is manually delivered to a small number of customers, often tailored to their individual needs. While this method is labour-intensive and initially unscalable, it provides deep qualitative insights and allows entrepreneurs to refine their understanding of user preferences and pain points. Over time, once patterns emerge, elements of the offering can be standardised or automated.

A third and particularly resource-efficient approach is *The Wizard of Oz MVP* originally proposed by Ries. In this format, users interact with what appears to be a fully operational product, but behind the scenes, processes are carried out manually. This method allows for the testing of usability, desirability and demand while deferring heavy investment in technology or infrastructure (Ghezzi, 2019). It is especially useful in validating assumptions related to user behaviour and product value, before scaling operations.

2.2.4 Engines of growth

Once validated feedback begins to accumulate, the startup's focus gradually shifts from exploration to growth. As Ries (2011) famously remarks, “*Startups do not starve; they drown*”, highlighting that the principal challenge is not scarcity of ideas or resources, but the lack of clear prioritisation amidst overwhelming possibilities. To support founders in navigating this critical transition, Ries introduces the concept of the three *engines of growth*—distinct strategic pathways through which startups can channel their efforts and allocate limited resources effectively.

The first is the *Sticky Engine*, which prioritises long-term customer retention over mere acquisition. The central objective is to foster sustained user engagement. Key performance indicators include the rate of *customer acquisition* and the *churn rate*—the proportion of customers who discontinue usage over time. This model is particularly prevalent in industries with recurring revenue streams, such as automotive after sales or gaming, where monetisation relies on continued participation rather than one-time transactions.

The second engine is the *Viral Engine*, which relies on user-to-user transmission to generate organic, exponential growth. Ries likens this mechanism to the dynamics of a pandemic, where each user actively contributes to attracting others. The primary metric is the *viral coefficient*—the average number of new users acquired by each existing one. When this value exceeds one, the system becomes self-propagating, as observed in many social networking and communication platforms.

The third model is the *Paid Engine*, in which growth is driven by targeted investment in advertising and promotion. Here, success depends on maintaining a favourable balance between *Customer Lifetime Value* (LTV) and *Cost per Acquisition* (CPA). If the difference between these two metrics is sufficiently large, scalable and sustainable growth becomes feasible. This model is especially common in e-commerce, where customer acquisition costs must be carefully managed in relation to long-term revenue generation.

Each engine of growth represents a different strategic logic and the optimal choice depends on product characteristics, market dynamics and the startup's long-term objectives. Importantly, these models are not mutually exclusive: startups may begin with one engine and transition to another as their understanding of customer behaviour and market conditions evolves.

2.2.5 Pivot or persevere

A critical component of the Lean Startup methodology is the decision point known as *pivot or persevere*. This decision involves assessing whether the startup is making sufficient progress towards a viable business model or whether a strategic shift is required. The process begins by establishing a baseline—typically through the deployment of an MVP—and refining the product through successive iterations of the *Build–Measure–Learn* loop.

Importantly, pivoting is not a random or reactive manoeuvre; it is a disciplined response to empirical evidence that suggests the current trajectory may not be sustainable. According to Ries (2011), the decision to pivot should be grounded in measurable progress within the selected engine of growth, as well as in expectations about future performance and entrepreneurial judgement. While Lean Startup emphasises evidence-based iteration, Ries acknowledges the persistent role of uncertainty, allowing for a degree of intuition in ambiguous contexts.

To guide this process, Ries proposes several types of pivots: (i) the *customer segment pivot* involves redirecting efforts toward a different group of users who demonstrate greater interest or willingness to pay; (ii) the *value capture pivot* refers to altering the revenue model—for instance, shifting from direct sales to advertising-supported models—often associated with a transition in the growth engine; and (iii) the *engine of growth pivot* entails abandoning one growth model in favour of another. A common example involves switching from a viral model that fails to scale, to a paid model once a favourable LTV–CPA ratio is identified.

These pivot types illustrate the adaptive and learning-driven nature of the Lean Startup framework. Rather than adhering rigidly to an initial plan, entrepreneurs are encouraged to adjust their strategic direction in response to validated learning, with the ultimate aim of building a sustainable and scalable business.

2.2.6 Lean Startup Opportunities

Among the most compelling opportunities offered by the Lean Startup methodology are its contributions to navigating uncertainty in early-stage ventures. These opportunities manifest across several dimensions: enabling a structured search for product–market fit, reducing resource waste, generating early traction and continuously adapting the business model. By understanding how these mechanisms create value, entrepreneurs can better leverage the methodology to guide decisions, validate assumptions and strengthen their ventures. These insights will inform the empirical part of this thesis, supporting the design and prioritisation of experiments.

A first opportunity lies in the pursuit of product–market fit. Rather than assuming the existence of demand, the Lean Startup methodology encourages a disciplined approach to testing whether a proposed solution addresses a meaningful need within a well-defined customer segment (Ghezzi, 2018).

Tools such as the Market Opportunity Navigator (Gruber & Tal, 2017) support this process by broadening strategic options and preventing premature commitment to a single idea. Behavioural metrics such as engagement and retention provide evidence-based indicators to refine product–market fit and structure growth narratives that appeal to investors (Shepherd & Gruber, 2020). This emphasis on validated learning contrasts with traditional reliance on static business plans and speculative projections.

A second opportunity concerns the reduction of waste, particularly of time and capital, which are typically scarce in the early stages of venture creation. Drawing inspiration from the Lean philosophy in manufacturing (Ohno, 1988), the methodology emphasises small, low-cost experiments that prioritise learning over perfection. By focusing resources on what actually matters to customers, entrepreneurs can avoid unnecessary spending and minimise the risk of building products that no one wants (Ries, 2011). In this way, Lean Startup provides a framework to mitigate liquidity risk and contrasts with earlier practices of heavy upfront investment with limited validation (Lerner, 2001).

A third opportunity involves the generation of early traction, understood as data-driven signals that a product or service is gaining relevance among users. Unlike hypothetical forecasts, traction relies on observable behaviour, such as repeated usage or willingness to pay, offering both internal clarity and persuasive evidence for external stakeholders (Ghezzi, 2018). These signals will underpin the design of feedback loops in the empirical phase, ensuring that insights remain actionable and credible.

Finally, the Lean Startup methodology supports continuous adaptation of the business model as ventures evolve. This adaptability is operationalised through mechanisms such as the pivot, defined as a structured change in strategic direction (Ries, 2011).

Tools like the Business Model Canvas (Osterwalder & Pigneur, 2010) facilitate this process by providing a modular view of the venture, where changes in one area—such as customer segments, value propositions or revenue streams—can be tested in relation to others. This capacity for systematic exploration enables startups to evolve through iterative learning and real-world feedback.

2.2.7 Lean Startup Challenges

Despite the multiple opportunities provided by the Lean Startup methodology, its application in real-world contexts poses several important challenges. These challenges can limit the depth and reliability of learning and they often emerge in early-stage ventures that adopt the methodology without adequate strategic framing or methodological rigour. Drawing on lessons from both academic literature and entrepreneurial practice, the following paragraphs explore five recurring challenges that can compromise the effectiveness of Lean Startup implementation: narrow opportunity framing, misuse of MVPs, weak experimental design, difficulty engaging early adopters and lack of theoretical grounding. Understanding these limitations is essential to mitigate the risk of superficial validation and to guide the design of more meaningful experiments in the empirical part of this thesis.

The first challenge lies in the narrow framing of market opportunities. The Lean Startup methodology tends to focus on tactical hypotheses related to specific building blocks of the Business Model Canvas (Osterwalder & Pigneur, 2010), such as customer segments or value propositions, while neglecting broader market considerations like competitive forces, sectoral trends or *total addressable market* (TAM). As shown in Ghezzi's (2019) study, startups often fail to assess the strategic context of their opportunity, committing prematurely to the first viable option.

This challenge—known as early focus bias—can be mitigated by complementing Lean Startup tools with frameworks such as the Market Opportunity Navigator (Gruber & Tal, 2017) and *Porter's Five Forces* model (Porter, 1980), both of which are integrated in the empirical design of this thesis to ensure a more robust market exploration.

Beyond this strategic dimension, a second challenge arises from the misinterpretation of the Minimum Viable Product (MVP). Many teams reduce the MVP to a tool for gathering opinions or testing superficial appeal, rather than using it as an instrument for eliciting observable user behaviour. This restricts the potential for validated learning and leads to insights based on assumptions rather than evidence (Blank, 2005). As Felin et al. (2024) warn, MVPs used without hypothesis-driven design risk producing misleading data that reinforce existing biases. To overcome this challenge, MVPs in the empirical phase of this thesis will be framed as structured experiments, designed to provoke concrete user actions under real conditions. This approach will help extract behavioural evidence on user needs, preferences and willingness to engage.

A third challenge concerns the design and execution of experiments. When hypotheses are vague, variables ill-defined or criteria for validation unclear, experiments fail to produce reliable insights. In such cases, results may be falsely interpreted as positive, simply because they are ambiguous or confirm prior beliefs (Ghezzi, 2018; Furr & Dyer, 2014). This challenge is particularly acute in early-stage ventures, where misguided conclusions can lead to flawed strategic decisions. To address it, the experiments in this thesis will follow a rigorous structure with clear hypotheses, measurable indicators and predefined criteria for validation or rejection. Moreover, critical interpretation of feedback will be prioritised over surface-level data collection, ensuring that each learning cycle contributes to cumulative knowledge.

In addition, a persistent challenge relates to the identification and engagement of early adopters—or *earlyvangelists*—who experience the problem intensely, are willing to pay for a solution and actively contribute to development (Blank, 2005). In practice, many startups rely on feedback from acquaintances or colleagues, whose opinions do not reflect those of the real target market (Ghezzi, 2019). This introduces confirmation bias and distorts learning. Even when true early adopters are found, sustaining their engagement across iterations demands transparency, responsiveness and visible progress—conditions not always easy to meet.

Finally, a foundational challenge concerns the lack of theoretical grounding in many Lean Startup experiments. The Build–Measure–Learn loop is often implemented as a series of disconnected tests without clear hypotheses or causal logic. Felin et al. (2024) describe this as a reactive, trial-and-error approach in which data are collected without a clear understanding of what is being tested or why. Without theory-driven design, insights remain context-specific and non-transferable, limiting their strategic value. To address this challenge, the empirical strategy of this thesis will explicitly link each experiment to an underlying behavioural or market theory. Every hypothesis will be framed with falsifiability in mind and results will be interpreted through a structured lens. This approach aims to strengthen both the internal validity and the generalisability of the findings, avoiding the trap of intuitive or ad hoc decision-making.

3 Strategic foundation and validation

This chapter introduces the strategic foundation of the project, serving as a starting point for the iterative development process proposed by the Lean Startup methodology.

To this end, the chapter follows a logical sequence of tools and frameworks derived from the key takeaways of the theoretical framework ([Chapter 2](#)). The first step involves the structured identification, exploration and prioritisation of potential market opportunities through the Market Opportunity Navigator (Gruber & Tal, 2017). The outcome of this tool is the selection of a promising opportunity space and an initial focus on a specific customer problem.

Building on this, an initial Business Model Canvas (Osterwalder & Pigneur, 2010) is constructed to visualise a set of hypotheses regarding how the venture might create, deliver and capture value. This approach aligns with Ghezzi's (2019) emphasis on reducing the risk of developing solutions that fail to address real customer needs. The goal at this stage is to formulate an actionable hypothesis set and to begin iterating rapidly on the riskiest elements of the model.

Once the initial BMC has been developed, attention turns to isolating the most strategically critical and uncertain assumptions embedded within it. Although each building block of the canvas inherently contains hypotheses, this stage involves distilling and prioritising those that pose the greatest risk to the viability of the venture. In line with the guidance of Ries (2011), Blank (2013) and Camuffo et al. (2020), particular emphasis is placed on hypotheses concerning the problem–solution fit, the definition and accessibility of customer segments and the sustainability of the revenue model.

Each hypothesis is articulated as a provisional statement to be systematically tested through experimentation. Prioritisation is carried out based on two key dimensions: the degree of uncertainty associated with the assumption and its potential impact on the success of the overall business model. This prioritisation ensures that resources are focused on validating the assumptions most likely to undermine the venture if proven false.

The outcome of this process is a clearly defined and actionable hypothesis set, each linked to measurable indicators and expected outcomes. This structured foundation enables the design of targeted Minimum Viable Products and experiments, fostering evidence-based iteration and continuous learning within the Build–Measure–Learn loop central to the Lean Startup methodology.

3.1 Business idea: Problem - solution - initial advantage

As a first step, it is essential to define the initial business hypothesis around which the project is structured. This includes identifying a relevant and unmet problem, proposing an effective solution and articulating the initial competitive advantage—or *moat*, understood as a sustainable advantage that protects a business idea from competitors and supports long-term differentiation. By outlining the business proposal at an early stage, a foundation is established for the strategic and analytical tools that follow, which will assess the concept's viability, attractiveness and differentiation potential.

3.1.1 Problem - Why people struggle with money today

The core problem this project seeks to address lies at the interchapter of two structural issues: a widespread lack of financial literacy and a persistent disconnect between access to financial tools and the ability to understand and use them effectively. While individuals today are increasingly required to make complex financial decisions—such as managing credit, planning for retirement or budgeting under uncertainty—most lack the foundational knowledge needed to do so confidently and responsibly.

This situation is exacerbated by the rise of digital financial services, which have democratised access to information and investment platforms without necessarily equipping users with the skills to navigate them. According to the World Economic Forum (2024), only 33% of adults worldwide are considered financially literate—a gap that persists across both advanced and emerging economies. This means that a large proportion of the population struggles to grasp key financial concepts such as compound interest, inflation or risk diversification, leaving them exposed to poor decision-making and economic vulnerability.

In parallel, the problem is also cultural. As noted by Shin (2015), *money* remains a taboo subject, often avoided in family and social conversations due to intergenerational silence, privacy concerns and peer comparison. These cultural barriers hinder the transmission of financial knowledge and deepen the gap between access and comprehension, particularly among younger generations who are overexposed to financial decisions but under-equipped to deal with them.

3.1.1.1 Consequences of financial illiteracy: risk, anxiety and disorientation

The disconnect between financial access and financial understanding is particularly evident when examining the early financial trajectories of young adults. Many begin their economic lives by taking on substantial debt, often without a clear understanding of its long-term implications. For instance, 64% of individuals with higher education have incurred some form of student debt and 81% of them continue to carry this burden, with an average of approximately \$20,000 (Young Invincibles, 2022).

As a result, financial insecurity is emerging as a widespread source of stress and anxiety. More than 50% of young Europeans report experiencing financial-related stress, which often manifests as avoidance behaviours, impulsive spending or disorganisation in money management (OECD, 2020). A recent study conducted among university students in Poland and the Czech Republic confirmed the prevalence of financial anxiety and low financial self-esteem, attributing it to the lack of adequate financial education during adolescence and early adulthood (Kapoula et al., 2024).

Beyond these psychological dimensions, individuals frequently face uncertainty about when and how to make major financial decisions—such as purchasing a car or a home. Buying a house is commonly regarded as the most significant financial decision in one’s lifetime, while acquiring a vehicle often ranks among the top three.

As noted by Shin (2015), this confusion is exacerbated by the cultural silence surrounding money, which leads individuals to rely on informal and often unreliable, advice from peers or family members.

3.1.1.2 Structural limitations of current solutions

Despite the growing availability of financial content and digital tools, existing solutions continue to fall short in effectively addressing the widespread lack of financial literacy. While numerous initiatives aim to improve individuals’ financial knowledge, their limitations remain substantial—both in terms of timing and pedagogical approach.

Formal financial education is often introduced too late, at a stage when individuals have already made key financial decisions without adequate preparation. Moreover, traditional programmes are frequently disconnected from the digital environments in which users—particularly younger individuals—interact and learn.

As noted by Andreou and Anyfantaki (2021), “just-in-time” education may be ineffective when deployed in isolation, without a foundational knowledge base that allows individuals to understand and apply financial concepts in complex situations.

In parallel, many widely used personal finance applications—such as budgeting and expense-tracking tools—are limited in scope. While these platforms provide useful monitoring functions, they typically lack the pedagogical structure required for behavioural change or conceptual understanding.

According to the Global Financial Literacy Excellence Center (GFLEC, 2021), some finance applications are popular for their usability but offer little in terms of structured, context-sensitive learning that fosters long-term financial capability.

In addition, the digital ecosystem is saturated with online content on personal finance that tends to be generic, static and poorly tailored to individual needs. Without adequate personalisation and contextualisation, such content struggles to engage users or drive meaningful behavioural outcomes. As highlighted in a recent CUInsight report (2024), adaptive, user-centric experiences are crucial for effective financial education, yet many platforms continue to deliver one-size-fits-all solutions that fail to align with users' literacy levels, goals or financial behaviours.

3.1.2 Solution

To address the combined challenge of financial illiteracy and the disconnect between access and understanding, the proposed business concept revolves around the development of a digital platform designed to foster financial literacy through practical, contextual and emotionally engaging learning experiences. Rather than providing static educational content or generic advice, the platform aims to become an active learning companion, guiding users through their real-world financial decisions while promoting lasting behavioural change.

Existing financial tools often fall short in three key ways: they either require high levels of prior knowledge, deliver disconnected or retrospective insights or fail to engage users in a meaningful way. In contrast, the proposed solution integrates financial education into everyday interactions through four interrelated features that combine pedagogical depth with technological automation.

First, the platform automates the tracking of income and expenses, removing the friction of manual inputs and ensuring seamless integration with real financial activity. This continuous visibility addresses a basic but often neglected dimension of literacy: knowing where one's money goes. By surfacing patterns over time, it lays the groundwork for reflection and behaviour change.

Second, it offers real-time, contextualised explanations of financial events. When unusual patterns are detected—such as a sharp increase in discretionary spending—the system proactively interprets what happened and why it may matter. This feature transforms otherwise passive data into teachable moments, directly tackling the problem of disconnected access by turning complexity into comprehension.

Third, users receive micro-lessons that follow a structured learning path adapted to their profile, financial habits and personal goals. These short, targeted pieces of content are designed to anticipate learning needs rather than just react to mistakes, offering a progressive way to build competence. In doing so, the platform goes beyond reactive budgeting apps, embedding financial education as a continuous and personalised process.

Finally, to reduce the anxiety and inertia that often surround money management, the platform includes gamified elements such as progress milestones, behavioural nudges and habit reinforcement mechanisms. These features are intended not only to sustain user engagement, but also to foster a more positive emotional relationship with money—critical in addressing the affective roots of financial avoidance.

Together, these elements form an integrated solution that aims not just to inform, but to empower. By embedding learning into action and action into learning, the platform seeks to close the gap between knowing and doing—ultimately enabling users to navigate their financial lives with greater clarity, autonomy and confidence.

3.1.3 MOAT - Initial competitive advantages

The platform's MOAT lies in its integration of real-time behavioural data with adaptive financial education, transforming daily financial interactions into personalised learning moments. Unlike traditional tools, it combines automation, contextual explanations, micro-lessons and gamification to foster lasting behavioural change—not just financial tracking. While acknowledging the inherent risks associated with handling sensitive data, the platform leverages next-generation technologies to automate these processes responsibly, avoiding unfounded recommendations and ensuring user trust remains central to the system's design.

A second MOAT emerges from the accumulation of anonymised behavioural evidence and user feedback over time, enabling continuous refinement of the platform's financial insights and recommendations. This data-driven learning loop, combined with a growing and engaged user base, creates increasing returns to scale in personalisation quality—making the platform progressively more effective and harder to imitate.

3.2 Market Opportunity Navigator application

The first step in applying the Lean Startup approach is not the immediate construction of a product or service, but the structured identification and prioritisation of market opportunities. In this context, the Market Opportunity Navigator (Gruber & Tal, 2017) offers a systematic method to explore, map and evaluate alternative opportunity spaces before committing to a specific strategic direction. Its use aligns with the Lean Startup principle of reducing waste by ensuring that entrepreneurial efforts are directed toward problems worth solving (Ries, 2011). In this sense, the MON can be understood as a complementary pillar to the Lean Startup methodology—alongside Customer Development, the Business Model Canvas and iterative testing—by introducing a rigorous early-stage process to decide where to play before determining how to win.

As highlighted by Ghezzi (2019), one of the key challenges for early-stage digital startups—such as what the application may ultimately become—is the tendency to anchor prematurely to a specific solution, rather than engaging in broad exploration. The MON addresses this issue by encouraging entrepreneurs to adopt a portfolio mindset, treating opportunities as flexible and evolving rather than fixed.

3.2.1 Market Opportunity Navigator's steps

3.2.1.1 Generation of the opportunity set

In this project, four core ability clusters were identified: (i) detailed consumer knowledge on financial apps; (ii) education on how to manage money; (iii) advanced use of gamified and learning apps and (iv) psychology towards money. These categories and the specific competencies underlying them, are fully justified and documented in [Appendix A](#).

Drawing on these core abilities, four opportunity directions were developed. The first, *Interactive savings education module*, targets young professionals aged 25 to 35, seeking structured and actionable guidance to improve their financial habits. The second, *Real-time spending behaviour interpreter*, is designed for busy professionals between 30 and 50, who need immediate, contextual insights into their financial behaviour. The third, *"What if" financial simulator*, addresses mid-career planners (30–50 y.o.) aiming to explore the impact of hypothetical financial scenarios. Finally, the fourth opportunity, *Couples' financial alignment tool*, is aimed at couples beginning to coordinate their financial lives (25–40 y.o.).

3.2.1.2 Evaluating the attractiveness of these opportunities

Each opportunity was evaluated according to the MON's criteria of potential and challenge. All guiding questions and scores are documented in [Appendix A](#). The results are summarised using a scale (Low - L, Mid - M, High - H, Super High - SH), enabling a nuanced assessment. The outcomes were then plotted on the Attractiveness Map.

Opportunities	Potential			Challenge			OVERALL	
	Compelling Reason	Market Volume	Economic Viability	Implementation Obstacles	Time to Revenue	External Risks	Overall Potential	Overall Challenge
Interactive savings education module	H	H - SH	M - H	L - M	M	L - M	H	L - M
Real-time spending behaviour interpreter	M - H	H	M	M	L - M	M - H	M	M
"What if" financial simulator	M	M - H	L - M	M	H	H	M	H
Couples' financial alignment tool	H	M	H	L - M	L	M	M - H	L - M

Figure 3.2.1.2.A Opportunity attractiveness assessment

The *Interactive savings education module* (A in Figures 3.2.1.2.B and 3.2.1.3) and the *Couples' financial alignment tool* (B in Figures 3.2.1.2.B and 3.2.1.3) fall into the Gold Mine quadrant. The *Real-time spending behaviour interpreter* (C in Figures 3.2.1.2.B and 3.2.1.3) appears in the Quick Win area, while the “*What if*” *financial simulator* (D in Figures 3.2.1.2.B and 3.2.1.3) is situated in the Questionable zone.

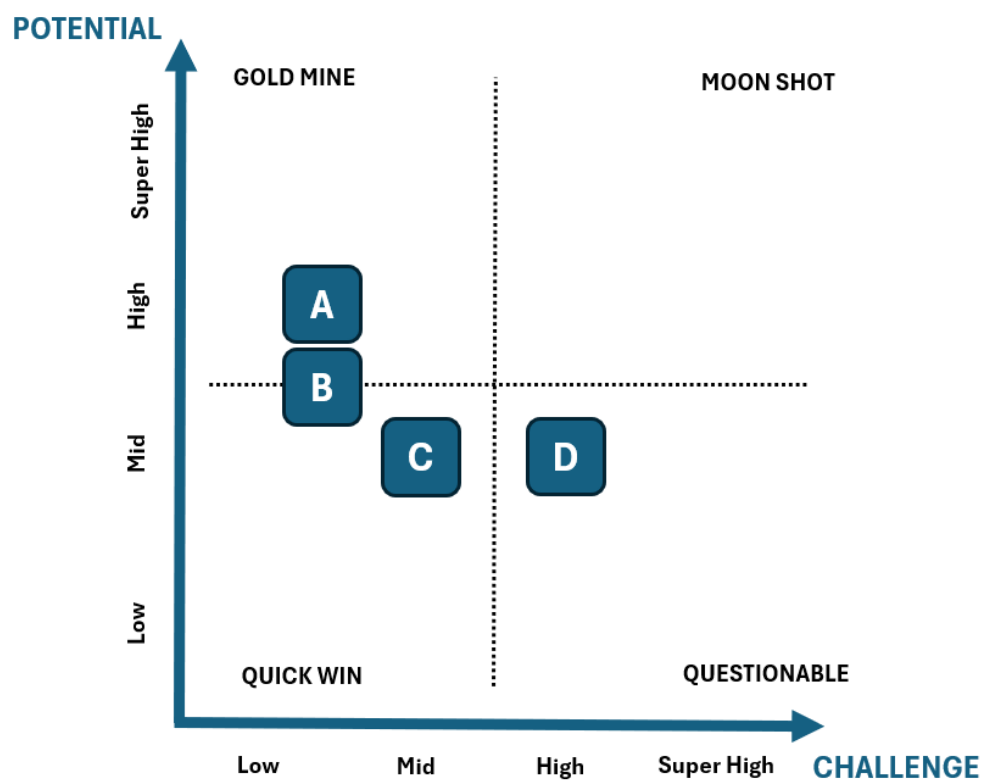


Figure 3.2.1.2.B Attractiveness Map of identified opportunities

3.2.1.3 Designing an Agile focus strategy

Based on the evaluation above, the *Interactive savings education module* is selected as the primary opportunity. It shares high product and market relatedness with the *Couples' financial alignment tool*, which is designated as a Growth option. The *Real-time interpreter* is considered both a Backup and Growth opportunity, while the “*What if*” simulator is reserved as a Backup only. Following the methodology’s logic, opportunities were categorised as Pursue Now, Keep Open or Place in Storage. The first two were prioritised for immediate development, while the others remain accessible for future iterations.

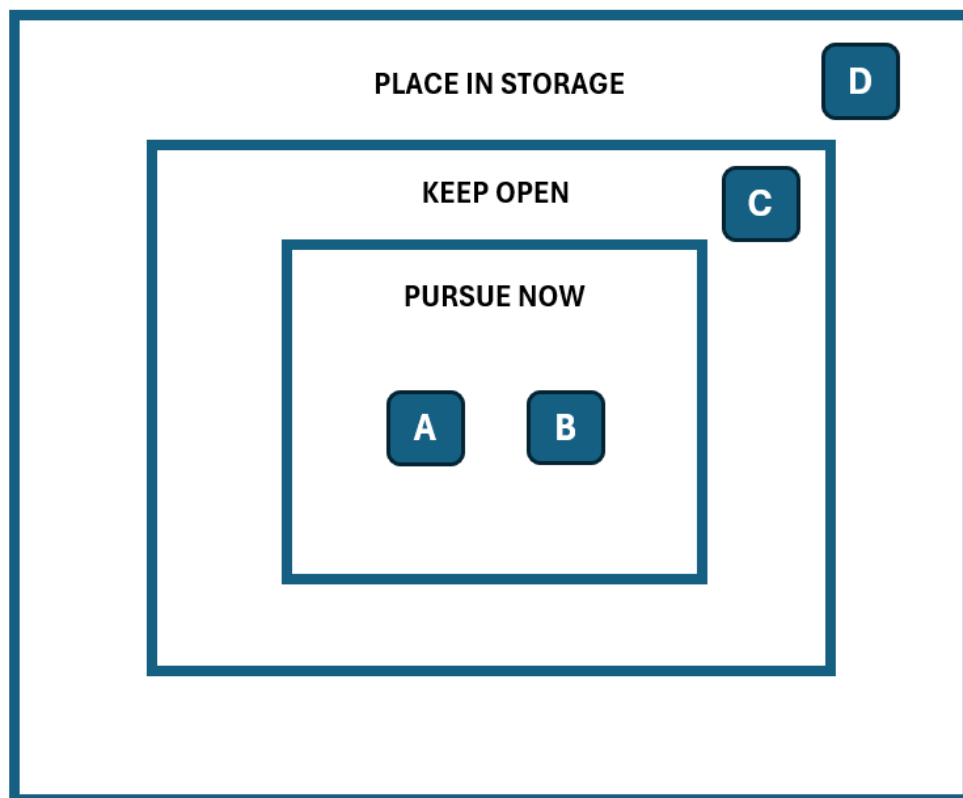


Figure 3.2.1.3 Agile focus strategy map

3.3 Business Model Canvas application

As the process unfolds, attention shifts to the selected idea. At this stage, it becomes necessary to construct a visual, clear, and structured representation of how value is created, delivered, and captured. This is precisely the function of the Business Model Canvas (BMC), a widely adopted tool introduced by Osterwalder and Pigneur (2010), which provides a systematic framework to map and test business model assumptions.

The BMC enables entrepreneurs, teams and organisations alike to map the fundamental components of a business model and to visualise its underlying logic in a holistic manner. Its primary purpose is to support the exploration, design and discussion of key hypotheses, which ultimately aim to optimise the various pillars of the business. Among these hypotheses—which will be further developed in [Chapter 4](#)—the BMC allows users to identify inconsistencies or structural weaknesses within the model. This, in turn, provides an opportunity to avoid unnecessary expenditure of resources during product or service development. In line with the Lean Startup methodology, the BMC encourages continuous iteration and aligns closely with the logic of the Build-Measure-Learn cycle.

3.3.1 Overview of the selected opportunity

The opportunity addressed in this chapter emerges from the prioritisation process undertaken through the Market Opportunity Navigator framework developed by Gruber and Tal. In order to provide a clearer context for the subsequent construction of the BMC, the current vision of the application's main functionalities is outlined.

The project involves a digital application—currently platform-agnostic, whether web or mobile—designed to provide free, gamified financial education. It offers a wide variety of topics and real-life financial situations, presented through an engaging and visually attractive interface. The primary target segment consists of young professionals aged between 25 and 35, a provisional range defined to guide early validation and user profiling.

3.3.2 Canvas breakdown: definition of each block

Nine interrelated building blocks are proposed to summarise the key aspects of a business model. While no fixed or universal sequence is prescribed for completing these blocks, there is a widely accepted logical order that aligns with Lean Startup principles. This approach begins with understanding the customer and the value being delivered, before defining how that value is delivered and monetised and finally addressing the activities, resources and partnerships needed to sustain the model.

3.3.2.1 Customer segments

The primary target customer segment for the company consists of young professionals—individuals who have completed their university education and are transitioning into early adulthood, often marked by milestones such as purchasing a home or starting a family. These individuals are experiencing financial independence for the first time, often finding it complex and risky (OECD, 2020). As a result, they are motivated to improve their financial knowledge, either out of necessity or personal ambition.

Demographically and psychographically, these users tend to have a medium to high level of education and possess the capacity to manage more than just their professional responsibilities. They are digitally active—frequent users of mobile applications, social media and online banking—and have grown up alongside the rise of digital platforms. For instance, a 25-year-old would have been around 10 years old when major social media platforms were launched, while a 35-year-old would have been over 18, with sufficient cognitive maturity to engage with this new social trend. Due to this deep exposure to social media and the widespread consumption of short, *swipeable* videos, it is crucial to capture their attention through highly visual, interactive and free content (Chiossi et al., 2023). Financial knowledge must be delivered in the most direct and accessible way possible, avoiding technical jargon that could act as a barrier.

When narrowing down the profile of our early adopter, it is essential to consider their current behaviour towards personal finance. Some may use *Excel* or basic financial apps, while others might follow financial education accounts on social media. However, it is assumed that the majority remain sceptical and prefer inaction over experimentation.

Finally, it is essential to determine the geographical area in which early adopters are most likely to be found. This decision is informed by a range of contextual variables that vary across regions or countries. These include: (i) prevailing cultural attitudes towards money and personal finance, (ii) the overall level of financial literacy, (iii) digital behaviour and technology adoption, (iv) language preferences and localisation requirements, (v) the size of the market and its potential for early validation, (vi) the cost and effectiveness of user acquisition strategies, (vii) the presence and nature of existing competitors within the financial education or personal finance application space and (viii) the ease of market entry and the associated regulatory environment.

While the app, web or mobile based, is conceived as a globally scalable solution, initial efforts will focus in Spain, as explained in [Appendix B](#), due to the favourable combination of low financial literacy levels, digital receptivity among young professionals and ease of local market access for early testing.

3.3.2.2 Value proposition

In this chapter, the focus is placed on articulating what the company promises to deliver to its users—the core value propositions that underpin the product’s relevance and differentiation. The first and most fundamental promise lies in providing *free, engaging financial education* tailored to the needs of young professionals. The content is designed to be visual, accessible and gamified, enabling users to understand real-life financial situations—such as budgeting, saving or managing expenses.

Secondly, the platform commits to being frictionless and non-intrusive in terms of data access. Unlike traditional financial tools, it does not require users to submit sensitive personal or banking data, thereby preserving anonymity and fostering trust.

A third proposition is its low-barrier approach to entry, both in terms of usability and emotional safety: users are not confronted with complex dashboards or financial obligations but are gradually introduced to knowledge through contextual, bite-sized learning experiences. This combination seeks to reduce the psychological friction commonly associated with personal finance, while encouraging confidence and autonomy in financial decision-making.

3.3.2.3 Customer relationships

The nature of the customer relationship is primarily structured around a self-service model, in which users engage autonomously with the platform and its content. The entire experience is designed to be highly automated, minimising the need for human intervention while ensuring that learning remains smooth, responsive and personalised through data-driven progression and content adaptation.

In addition, the application integrates a system of gamified engagement, including elements such as challenges, milestones and symbolic rewards aimed at maintaining motivation and reinforcing user retention (OpenLoyalty, 2025). Finally, future development will explore the creation of digital communities, where users can exchange insights, ask questions and support one another—fostering peer learning and enhancing the emotional dimension of financial empowerment.

3.3.2.4 Channels

The primary objective is to ensure that users feel comfortable and at ease when interacting with the app (Norman, 2013). As Norman suggests, users are more likely to return to a product that they can use intuitively and with confidence. To address the typical tension experienced during first-time use, particular emphasis is placed on a well-designed onboarding process, which includes real-life examples that help users relate immediately to the content. This not only lowers the initial barrier to engagement but also builds trust from the outset.

Before reaching this stage, users will typically access the platform through the *Google Play Store*[®] and *Apple App Store*[®] on mobile devices or via *Google*[®] search on the web. Their arrival will be driven by a sustained content marketing strategy focused on social media channels, which is expected to generate organic traction and stimulate word-of-mouth referrals (Invesp, 2025).

Once using the platform, support will be provided through an automated FAQ system designed to resolve the most common user questions efficiently and without friction.

3.3.2.5 Revenue streams

In terms of revenue generation, the business model must align with established principles of value creation and capture (Teece, 2010). Given the potential to attract a broad user base, an initial *freemium model* supported by integrated advertising may reduce early adoption barriers, especially among users reluctant to commit financially upfront. At the same time, *subscription-based* alternatives will be explored, as they are known to foster stronger user engagement and provide more control over the service experience (Ghazawneh & Henfridsson, 2012). As Osterwalder and Pigneur (2010) note: “*Subscription revenues work best when customer retention is high and switching costs are non-trivial.*”

The question to be asked is the following: *Is growth at all costs the right business model?* This strategic decision entails choosing between a logic of accelerated expansion through freemium models or a more conservative approach focused on sustainable revenue from the outset.

In addressing this strategic dilemma, the freemium model stands out for its capacity to enable rapid user acquisition, foster data-driven iteration and lower entry barriers—allowing users to experience value before committing financially. It is particularly suited for solutions that benefit from network effects or behavioural learning at scale. However, it also carries risks related to short-term financial sustainability, as revenue depends on conversion rates that may take time to materialise, often requiring upfront investment to maintain operations.

Conversely, a model based on subscriptions or upfront payments offers more predictable revenue streams and often correlates with stronger user commitment. Yet, it may limit adoption speed and pose challenges in markets where perceived value emerges gradually or where price sensitivity is high.

Given that further experiments will be conducted at later stages, it is reasonable to hypothesise a *hybrid freemium model*, in which essential functionalities are offered free of charge, while more advanced features are made available through a paid tier. This approach enables early user adoption with minimal friction, while creating the conditions necessary to explore monetisation strategies in subsequent phases.

Another potential revenue stream under consideration is the *B2B channel*, as monetisation need not rely solely on the retail or direct-to-consumer (B2C) model. This may include collaborations with companies or educational institutions interested in integrating financial education into their training programmes or employee well-being initiatives. While this option remains exploratory at this stage, it will be revisited once initial user traction and product validation have been achieved.

3.3.2.6 Key activities

The core activities underpinning the business model focus on three main domains. First, the platform's development—both at the initial stage and on a continuous basis across web and mobile environments—is essential to ensure scalability, performance and security. Second, strong emphasis is placed on content-driven marketing, particularly via social media, with the objective of attracting and retaining users by delivering value prior to conversion. Lastly, particular attention is given to the optimisation of key user flows, especially the onboarding experience, which is designed to minimise friction, foster early engagement and establish user trust and retention from the very first interaction.

3.3.2.7 Key resources

The business model relies on a combination of digital, human and content-based resources. Technologically, the project depends on two primary assets: the web-based platform and its mobile application, both of which must operate seamlessly and allow for iterative improvements. In addition, the company requires a team with specific professional expertise, particularly in areas such as full-stack development, UX/UI design and content strategy. Finally, a substantial part of the value proposition is supported by the creation and ownership of original educational content, which must be both engaging and pedagogically sound to sustain user interest and differentiation.

3.3.2.8 Key partners

The project relies on several key external actors whose involvement, whether passive or collaborative, is essential for the successful functioning and scaling of the business model. First, digital distribution platforms are fundamental in delivering the application to end users. This includes major mobile app ecosystems such as those operated by Google® and Apple®. While these entities are not formal partners, the accessibility and discoverability of the product depend heavily on their infrastructure.

Second, the development and deployment of the platform depend on a suite of technical tools and cloud services, including frameworks for app development, hosting solutions and analytics platforms. These resources are crucial for ensuring the scalability, performance and reliability of both the web and mobile versions of the application.

Third, the business may benefit from partnerships with external content creators, particularly those with financial education expertise, to enrich the platform’s learning materials and increase pedagogical credibility.

Lastly, collaboration with foundations or public institutions committed to financial literacy is envisaged as a potential avenue for enhancing impact, securing visibility or accessing funding mechanisms in line with the project’s educational mission.

3.3.2.9 Cost structure

The primary cost components of the business model include the technical maintenance and continuous development of the platform, covering both web and mobile versions. In addition, significant expenses are associated with external technological infrastructure, such as cloud-based services, user tracking systems and the potential integration of third-party *Application Programming Interfaces* (APIs)—that is, external software components enabling features such as payment processing, authentication or data visualisation—to support core functionalities.

A significant portion of the budget is allocated to personnel salaries, particularly for specialised roles such as full-stack developers, UX/UI designers and content creators. In addition, regardless of the degree of automation implemented, there are associated costs related to technical support and user assistance that must be accounted for in the operational structure.

Complementing these efforts, the production of educational content in multimedia formats—such as videos, animations or interactive graphics—may also incur additional expenses, especially when external expertise or professional editing services are required.

Additionally, although the aim is to conduct testing activities as cost-effectively as possible, there are operational expenses that cannot be overlooked. These include usability testing with real users, A/B experiments and the necessary qualitative and quantitative research required to validate and refine the product experience.

3.3.3 Visual synthesis of the Business Model Canvas

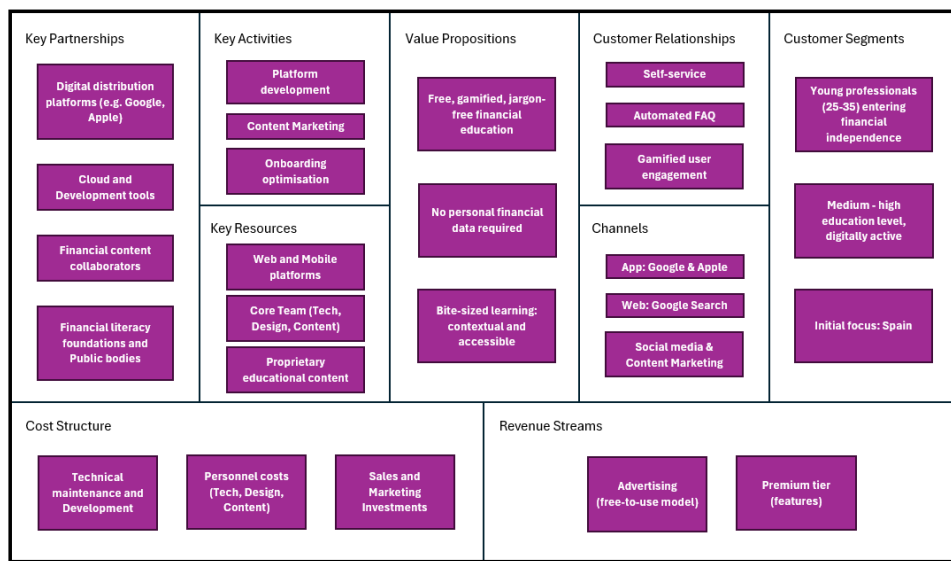


Figure 3.3.3 Visual synthesis of the Business Model Canvas for the proposed digital financial education solution.

4 Method

This chapter outlines the methodological foundation of the thesis, guided by the Lean Startup framework and the dual objectives of discovery and validation. Given the exploratory nature of the project, the design prioritises learning through user engagement, iterative testing and hypothesis refinement. The aim is not to prove a predefined theory but to interrogate critical assumptions underlying the business model, drawing on real-world behaviours and perceptions.

The chapter introduces the core hypotheses, derived from the strategic framing of Chapters [2](#) and [3](#) and operationalises a multi-method exploratory approach that combines surveys for quantitative breadth with interviews for qualitative depth. Finally, it reflects on methodological limitations and trade-offs, presenting the research process as both a source of empirical data and a driver of conceptual insight.

4.1 Definition of the Hypotheses

Behind every hypothesis lies a specific need or problem to be solved. One of the first strategic questions to arise in the experimentation phase is how many hypotheses should be defined in order to validate—or reject—the underlying assumptions of the business model. The aim is to determine the minimum number of hypotheses necessary to maximise learning while enabling meaningful pivots. Attempting to test too many hypotheses simultaneously often results in diluted efforts, ambiguous insights and inefficient use of time and resources—ultimately compromising the agility and focus that early-stage ventures require (Camuffo et al., 2020).

In this context, the concept of core hypotheses becomes particularly relevant. As introduced by Furr, Dyer and Christensen (2014) in *The Innovator's Method*, these refer to the *three to five* most critical assumptions that must hold true for the business to succeed. They go beyond product features or user preferences, focusing instead on foundational beliefs regarding demand, behavioural intent, channel adoption and monetisation. Without their validation, any subsequent development would lack strategic grounding.

Building on this strategic framing, the following four core hypotheses were defined as the foundation for this project's validation process. Each hypothesis addresses a distinct yet interdependent dimension of the business model: (i) the existence of a real problem; (ii) the limitations of current alternatives; (iii) the perceived value of a proposed feature; and (iv) the users' willingness to pay. Together, they represent the minimum viable set of assumptions that must hold true for the venture to be considered both desirable and feasible. Each hypothesis is presented in this chapter, along with the corresponding testing methods and validation criteria.

4.2 Research design

4.2.1 Research methodology

This study adopts a *multi-method exploratory research design*, grounded in the principles of the Lean Startup approach (Ries, 2011). In contexts marked by uncertainty and limited prior knowledge—particularly regarding user needs, behavioural patterns and solution effectiveness—exploratory designs are especially suitable for surfacing meaningful insights and guiding early-stage decision-making. Rather than testing pre-defined hypotheses in controlled conditions, the goal was to explore and validate assumptions through direct user interaction and real-world feedback.

The methodological orientation is informed by the Lean Startup framework. In this sense, the research design serves not only as a means of data collection, but as an engine for discovery and adaptation. Recent academic contributions (e.g., Ghezzi, 2019; Camuffo et al., 2020) have highlighted how Lean Startup can be operationalised as a rigorous empirical process, closely aligned with the logic of scientific experimentation.

To accommodate the complexity of the problem and the exploratory nature of the inquiry, the research integrates both quantitative and qualitative components. These were used not as isolated techniques but as complementary lenses, allowing for triangulation of findings and the refinement of assumptions from multiple perspectives. This combination follows the recommendations of Creswell and Plano Clark (2011), who argue for methodological pluralism in studies involving emergent phenomena.

Finally, the research process was not conceived as a linear sequence, but rather as an iterative engagement cycle. The methods applied were selected and sequenced to balance speed, depth and contextual sensitivity. In doing so, the design supports not only hypothesis testing but also the co-evolution of the problem definition and the solution design over time.

4.2.2 Data collection techniques

In line with the multi-method exploratory design outlined above, two complementary techniques were employed for data collection: a digital survey and a series of one-on-one interviews. This combination allowed for both the rapid identification of perception patterns at scale and the in-depth exploration of individual experiences and reasoning. The selection of these techniques responds to the logic of hypothesis-driven learning advocated in Lean Startup methodologies (Blank, 2013; Camuffo et al., 2020), where each research iteration informs the refinement of the problem-solution fit.

The first track prioritised speed and breadth, employing a structured online survey to capture a wide range of attitudes and intuitive reactions related to personal finance behaviours. This instrument was distributed among personal and professional contacts, targeting a diverse demographic of young individuals from multiple cultural and national backgrounds. The survey was designed to elicit contextual information about each respondent, as well as visual and intuitive judgements in response to selected behavioural scenarios. While subjective in nature, this technique was particularly effective for identifying preliminary trends and patterns that could guide early-stage validation, as supported by exploratory research practices (Creswell & Creswell, 2018).

The second track emphasised depth and interpretative richness through a set of semi-structured interviews. Each interview followed a consistent structure comprising three stages: (i) discussion of the participant's personal financial context; (ii) engagement with real-life financial scenarios of increasing complexity; and (iii) an open-ended conversation about the perceived value of the proposed application features. The interview sample was deliberately diverse, not only in geographic and cultural terms, but also in terms of mindset—including at least one participant known to be sceptical of conventional financial tools. This heterogeneity was essential to capture edge cases and test the robustness of the hypotheses under varying perspectives, in line with the recommendations of Eisenhardt and Graebner (2007) for building theory from pluralistic data.

Beyond their functional role in hypothesis validation, these techniques helped reframe assumptions and uncover overlooked insights through direct user engagement. The one-on-one format was particularly valuable, as it fostered rich conversations that often prompted unexpected reflections and emotional responses—dimensions that surveys alone could not capture. To maximise this depth, the research process was deliberately structured to build trust and encourage genuine dialogue with participants. As Carnegie (1936) suggests, empathy and active listening are not merely interpersonal virtues but also strategic enablers of user-centred innovation.

While other data collection techniques were considered, such as focus groups and intercept interviews, they were ultimately deemed unsuitable for the objectives and context of this study. Focus groups, although useful for exploring shared attitudes, present significant limitations in research involving personal or financially sensitive topics.

The group setting may inhibit honest disclosure and introduce conformity bias (Krueger & Casey, 2015; Morgan, 1997), particularly in domains like personal finance where social comparison plays a strong role.

Likewise, intercept interviews—conducted spontaneously in public settings—were excluded due to their superficial nature and lack of contextual depth. These interactions are typically constrained by time and environment, which limits the possibility of building rapport and exploring individual reasoning processes (Belk et al., 2013; McGrath & Otnes, 1995). In contrast, the combination of structured surveys and individual interviews offered both the breadth and interpretative depth required to iteratively validate assumptions and uncover nuanced user insights.

4.3 Definition of Hypothesis 1

Hypothesis 1 (H1): Young professionals perceive confusion or insecurity in managing their personal finances.

This hypothesis addresses the core problem dimension. Without its validation, the entire project loses meaning, as it would lack a genuine demand from the target segment. Although informal conversations during the problem exploration phase already hinted at the presence of this need, a more rigorous and systematic validation is required. As Ries (2011) argues, hypotheses concerning the existence of a real problem are the most critical “leap-of-faith” assumptions and must be tested first, as they underpin the entire entrepreneurial effort.

4.3.1 Testing method

The most efficient and rapid method for validating this hypothesis was through the digital form. The questionnaire is intended to be distributed among what are commonly referred to in entrepreneurship as the 3Fs: *friends, family and fools* (Mason & Harrison, 2002).

While a certain degree of subjectivity in the responses is acknowledged, this is considered acceptable at this stage, given that the purpose of the survey is to capture broad patterns of perception and behavioural intent rather than precise statistical inference. The goal is to detect whether the hypothesis resonates across diverse yet familiar profiles, thereby guiding the decision to either persevere or pivot.

4.3.2 Validation criteria

To confirm this hypothesis, several quantitative thresholds were established as validation criteria. First, a minimum of 50 completed survey responses was required to ensure a sufficiently diverse sample. Secondly, more than half of the respondents needed to belong to the initial early adopter profile—namely, individuals aged between 25 and 35 years. Third, the average self-assessed level of personal finance competence had to fall below the midpoint of the scale (i.e., below 3 on a 1-to-5 scale). Finally, over 50% of participants were expected to express clear interest in a potential application aimed at improving financial confidence.

Should these conditions be met, the project would gain a validated foundation to explore potential solutions. If not, a significant pivot in the project's direction would be required, as the underlying assumptions would no longer hold.

4.4 Definition of Hypothesis 2

Hypothesis 2 (H2): Young professionals currently lack access to personalised and jargon-free financial guidance that fits into their daily routines, which contributes to their perceived financial confusion.

This hypothesis does not address the existence of a personal need (as in H1), but rather the absence or insufficiency of tools capable of resolving that need. Its purpose is to confirm whether the perceived lack of financial confidence is exacerbated by a gap in existing solutions. In other words, even if the problem is validated, its significance would diminish if suitable tools were already being used effectively by the target segment. Thus, this hypothesis tests whether current alternatives—such as banking apps, blogs or financial content—fail to meet users’ expectations in terms of accessibility, clarity or personal relevance.

4.4.1 Testing method

To test this hypothesis, part of the survey used in H1 was leveraged, specifically the chapters related to respondents’ habits around tracking monthly expenses and their use of personal finance applications. While this data offers preliminary insights into current behaviours and tool usage, it is not considered sufficient to fully validate or reject H2 due to the subjectivity of self-reported habits and the limited depth with which survey responses can capture perceptions of usefulness, clarity and contextual fit of existing tools.

To complement these findings, in-depth interviews were used to investigate whether the perceived lack of financial confidence is intensified by the absence of accessible, comprehensible and contextually appropriate tools.

Rather than focusing on feature-level evaluation, the conversations were designed to uncover whether existing solutions are perceived as overly complex, too generic or misaligned with the day-to-day realities of the target group. This qualitative layer served not only to validate the hypothesis but also to uncover overlooked drivers of dissatisfaction and inform subsequent design decisions.

4.4.2 Validation criteria

4.4.2.1 Survey

One validation criterion is that more than 50% of respondents report not using any personal finance applications. This would suggest that existing solutions have low penetration among the target group, reducing the intensity of direct competition in terms of user habits and opening space for differentiated alternatives. Regarding the extent to which users track their finances, the interpretation is more nuanced. Both high and low levels of tracking can support the hypothesis: low tracking may indicate disengagement due to the lack of effective tools, while high tracking combined with continued confusion may reflect dissatisfaction with current options. Therefore, this indicator is treated as a contextual variable rather than a strict criterion.

4.4.2.2 Interviews

A minimum of 10 individual interviews should be conducted, generating over 10 hours of qualitative feedback. Validation is supported if a significant proportion of interviewees report regular disengagement from existing financial apps or demonstrate a lack of consistent use, alongside expressions of anxiety, confusion or frustration when describing real-life financial decisions. These patterns are particularly relevant when linked to the perceived absence of personalised, accessible or trustworthy guidance.

4.5 Definition of Hypothesis 3

Hypothesis 3 (H3): If a digital solution provides real-time explanations of spending behaviour in simple language, young professionals will feel more in control of their finances and will be more likely to change spending habits.

This hypothesis focuses on assessing, with the greatest possible objectivity, how potential users perceive specific functionalities that could be included in the proposed solution. Unlike previous hypotheses, which explore emotional responses or behavioural gaps, this one seeks to evaluate the potential effectiveness and perceived value of a concrete feature—real-time, jargon-free explanations of financial behaviour. Moreover, such objectivity is considered crucial at this stage to make informed decisions about the design and prioritisation of product features.

If users do not perceive clear added value in these functionalities, development resources would risk being misallocated. Therefore, the outcome of this hypothesis will play a decisive role in shaping the MVP and guiding future iterations.

4.5.1 Testing method

To explore this hypothesis, users were presented with contextualised financial scenarios inspired by the logic of the board game Monopoly[®], where individuals make decisions based on the tools or assets available at a given moment. This gamified approach reflects established educational practices using the game to introduce concepts of risk and probability in competitive, experiential settings. Gazdula (2020) employed a version of Monopoly[®] as a probability simulator to boost engagement and understanding of decision-making under risk, illustrating its value for examining how users evaluate financial trade-offs when guided—or not—by simple, real-time explanations.

To justify the potential value of the proposed functionalities, each scenario was first presented without support and then repeated with a short explanatory comment. This before-and-after structure made it possible to observe shifts in perception, confidence or behavioural intention. The comment was delivered by a virtual assistant named Nilo—an animal character designed to enhance emotional connection. Comparable use of relatable mascots, such as Duolingo®’s “Duo”, has proven effective in boosting engagement and retention (TED, 2023).

To provide a clearer understanding of this methodological approach, the full set of scenarios used during the interviews has been included in [Appendix D](#). These examples illustrate the structure, tone and content of the prompts and support the interpretation of the results presented in the following chapters.

4.5.2 Validation criteria

Unlike the previous hypotheses, the validation of H3 relies entirely on qualitative insights gathered through interviews. The objective is not to obtain consensus around specific functionalities, but rather to observe noticeable shifts in perception before and after users receive support from the virtual assistant's comments. Evidence of increased clarity, confidence or reconsideration of their initial choices would indicate that such guidance has potential value.

Constructive criticism of the assistant’s interventions is not only expected but welcomed, as it may reveal usability barriers or highlight areas for refinement. One particularly relevant indicator is the use of spontaneous language expressing usefulness, surprise or reconsideration—such as “now it makes sense” or “I hadn't thought of it that way”—which may suggest a genuine cognitive or emotional impact triggered by the assistant’s input.

4.6 Definition of Hypothesis 4

Hypothesis 4 (H4): Users who show interest in the solution are willing to pay to access its core features.

This hypothesis aims to explore the business model dimension of the project, specifically the feasibility of generating revenue through user payments. While earlier hypotheses focused on the existence of a problem, the absence of adequate tools and the potential value of specific functionalities, this assumption seeks to understand whether the proposed solution could sustain itself through direct monetisation.

Validating this hypothesis is essential for assessing the financial viability of the venture. Even if the solution proves useful and desirable, a lack of willingness to pay would require exploring alternative revenue models, such as partnerships, freemium strategies or advertising.

As outlined in the [Revenue Streams](#) chapter of the BMC, the final choice between a subscription-based approach or monetisation through advertising remains open and will be informed by the results of this testing. Hence, this hypothesis serves as a filter to determine both the strength and the direction of the project's monetisation strategy.

4.6.1 Testing method

Within the interviews, a final chapter was dedicated specifically to exploring users' implicit and explicit preferences regarding monetisation. Rather than posing direct pricing questions, the approach focused on interpreting participants' responses in scenarios that indirectly reveal their payment thresholds, tolerance for advertising and openness to shared or subsidised models.

For example, participants were asked to reflect on trade-offs such as using the app for free with advertisements versus paying a small monthly fee for an ad-free experience (See [Appendix D](#)). The goal was not to obtain definitive pricing-related insights, but to detect patterns in attitudes toward value exchange—what users are willing to give in return for a service they find genuinely useful.

4.6.2 Validation criteria

As with H3, the responses obtained are inherently qualitative, which makes the validation process less binary and more interpretative. Rather than relying on fixed thresholds, the analysis focuses on individual expressions of surprise, openness and imagination when discussing potential payment models.

Key indicators include spontaneous reflections such as "I would pay for this if..." or thoughtful comparisons to other apps users already pay for. Importantly, tolerance towards ads or freemium limitations is also considered a sign of perceived value. Each case is analysed independently, as willingness to pay is deeply influenced by personal context, perceived utility and emotional connection to the solution.

4.7 Reflection on the limitations of each method

Reflecting on the overall research process reveals both the strengths and the inherent limitations of the adopted methodological design. The multi-method exploratory approach, grounded in the Lean Startup framework, allowed for hypothesis validation and user learning—combining quantitative reach with qualitative depth. This combination follows Creswell and Plano Clark’s (2011) advocacy for methodological triangulation in complex settings and aligns with Ghezzi’s (2019) interpretation of Lean Startup as a form of empirical discovery. However, recent contributions from Felin et al. (2024) warn that entrepreneurial research overly reliant on user feedback may suffer from structural subjectivity and path dependence—where validation becomes a self-fulfilling exercise rather than a mechanism for theoretical advancement.

The survey component enabled rapid collection of perception data across a broad sample. However, its brevity raises critical questions, as many participants completed the form in under three minutes, limiting both depth and cognitive engagement. While such formats may be suitable for detecting broad patterns in early-stage exploration, they also risk superficiality. As Guba and Lincoln (1985) argue, trustworthiness in quantitative research is not guaranteed by response rate or volume, but by the depth and authenticity of engagement. For this reason, survey data in this thesis are treated as directional rather than definitive.

On the qualitative side, particular attention was paid to minimising interviewer bias and fostering respondent autonomy. For this reason, a written asynchronous interview format was developed to create a neutral environment where participants could respond at their own pace and revisit previous prompts if needed.

The interview process was structured in three stages: (i) a brief, non-leading introduction to establish comfort and trust; (ii) a transparent explanation of the format and time expectations; and (iii) a series of scenario-based prompts followed by an open feedback chapter. Together, these elements were intended to create a psychological “bubble” around the participant—maximising control over tempo, reducing social desirability bias and encouraging more reflective responses. However, while this approach helped to minimise interviewer influence, it also restricted the opportunity to probe in real time, a trade-off discussed by Kvale and Brinkmann (2009) in the context of interpretative depth.

Regarding analysis, an inductive thematic approach was applied to the interview corpus, seeking patterns in reasoning, emotion and behaviour. Coding was conducted iteratively and manually, allowing themes to emerge while remaining sensitive to deviations and outliers. While this interpretive process follows the principles of grounded theory (Charmaz, 2006), it remains inherently subjective, as emphasised by Miles, Huberman and Saldaña (2014). To mitigate this risk, responses were anonymised, interpretations were revisited in light of emerging contradictions and particular attention was given to perspectives that challenged initial assumptions—for instance, the input provided by the contrarian profile deliberately included in the sample.

Finally, a key epistemological tension emerged: balancing user-informed iteration with imaginative theorising. As Felin et al. (2024) warn, relying solely on user preferences can create a demand-following bias, leading to incremental changes rather than real innovation. Drawing on Sarasvathy’s (2001) *effectuation* and Shane’s (2000) view of opportunity *discovery*, this study therefore sought not only to validate assumptions but also to remain alert to signals that called for reframing the problem itself.

5 Results

This chapter presents the results obtained from the application of the empirical methods designed to validate each hypothesis defined in the research. The findings are presented in the same order as the hypotheses previously introduced and are grounded in both quantitative and qualitative evidence collected through surveys (see [Appendix C](#)) and interviews (see [Appendix D](#)).

5.1 Hypothesis 1 results

The first hypothesis explored whether a lack of personal finance education is prevalent among young professionals, potentially representing a latent market need. The online survey received a total of 56 responses, thus surpassing the initial threshold of 50 participants set as a minimum validation criterion. Notably, 58.9% of respondents belonged to the target demographic of individuals aged 25 to 35, confirming the representativeness of the sample with respect to the intended audience (see Appendix C, [Table C.1](#) for age range).

A key validation metric was the self-assessed financial literacy level. Participants were asked to rate their competence on a scale from 1 (very low) to 5 (very high). The resulting average score was 2.98, slightly below the midpoint. Although marginal, this result satisfies the validation criterion, indicating that participants themselves perceive a moderate-to-low degree of competence in managing personal finances (see Appendix C, [Table C.8](#) for the full distribution of self-assessed knowledge).

This result, while quantitative in nature, is inherently subjective and reflects the participants' self-perception rather than any objective financial capability assessment. Nonetheless, it provides support for the relevance of an educational intervention.

5.2 Hypothesis 2 results

The second hypothesis aimed to evaluate whether current personal finance applications fail to engage or retain users, suggesting the opportunity for a more adaptive and human-centred alternative. A dual-method approach was employed, consisting of the survey previously used in H1 and a set of in-depth interviews.

The survey revealed that 78.6% of respondents do not currently use any personal finance application. Within this group, 22.7% indicated that they had used one in the past but eventually abandoned it. This significant abandonment rate aligns with the hypothesis that existing tools do not sufficiently accommodate the needs or expectations of users, especially within the target demographic (see Appendix C, [Table C.10](#) for the app usage breakdown).

To complement these findings, 12 qualitative interviews were conducted, yielding over 20 hours of in-depth feedback from individuals across six different countries. This volume of material is far above the upper range originally anticipated for a study of this scope and therefore significantly exceeded the theoretical target outlined in [Chapter 4](#). Moreover, the interview analysis revealed *five recurrent themes*, each shedding light on behavioural patterns and exposing key limitations within the current financial technology landscape. To enhance the understanding of each theme and strengthen the credibility of the findings, anonymised excerpts from interview participants are presented.

(i) Lack of clarity leads to inaction or avoidance. Several participants reported refraining from engaging with financial offers due to a lack of understanding, particularly in simulated scenarios B2 and B3. One participant commented that they would ignore it because they *"don't even know what pre-approved means, nor whether it's a good interest rate,"* while another added that *"it wasn't easy to understand the terms and I would've appreciated a more detailed explanation of what they imply."*

(ii) Emotional response: fear, doubt and risk aversion. Participants exhibited avoidance behaviours rooted in emotional reactions rather than rational analysis. This reinforces the notion that complexity or ambiguity in financial products triggers psychological friction. One participant said, *"Out of fear of loans, I wouldn't accept it—but I don't really know whether it's a good or bad option,"* while another stated, *"I felt safe this way. I don't like to overcomplicate things."*

(iii) Preference for intuitive, human guidance. Interviewees expressed a strong desire for support that was not only clear but also perceived as trustworthy and personal. Several respondents emphasised that they would turn to close contacts—such as friends, relatives or trusted advisors—rather than rely on impersonal digital sources. As one participant put it, *"I would've liked some professional and trustworthy guidance. There may be more effective ways to use that money,"* while another added that advice from *"a close friend, a financial advisor, your own judgment or relatives who understand money"* would feel more reliable.

(iv) Reluctance to act without a clear plan. Even those inclined to save or invest underlined the importance of having a strategy adapted to their individual situation and risk tolerance. One participant shared, *"I would go with option 1 first and depending on how much I already have saved, I'd invest part of the bonus. My mindset now is to only risk what you can afford to lose."*

(v) Trust in informal, self-curated sources. A general lack of trust in institutional or anonymous digital advice was observed, with participants often perceiving such sources as distant, biased or overly complex. Instead, they relied on self-defined heuristics and selectively followed digital influencers whose style and tone felt authentic. This behaviour highlights a preference for personal judgement and informal validation over standardised recommendations. As one interviewee remarked, *"I trust people I know first—it's just easier. When it comes to online sources, I rely on my own judgment to assess if the information is useful, whether it comes from social media, blogs or YouTube."*

5.3 Hypothesis 3 results

The third hypothesis posited that if a digital solution provides real-time explanations of spending behaviour in simple, accessible language, young professionals will feel more in control of their finances. To test this assumption, three scenario-based vignettes were deployed across interviews, each simulating common financial decision-making situations. Participants interacted with the previously mentioned Nilo, whose role was to offer short, contextualised explanations in response to user actions.

5.3.1 C1 - Buying vs Renting

This high-stakes scenario assessed whether a concise, data-driven message could influence a participant's housing decision. Several interviewees expressed appreciation for Nilo's explanation, particularly when it referenced historical data or provided tangible long-term implications. One noted that *"such a summary would help, especially if it shows actual long-term benefit,"* while another remarked that *"it gave me points to think about and reflect."*

However, some limitations were reported. A single sentence was often considered inadequate for such a consequential decision. As one participant explained, "*I would need even more explanation, it is a big decision.*" A minority explicitly stated that Nilo's input would not alter their stance, saying, "*My decision would still be the same, with or without Nilo.*"

5.3.1.1 C1 - Implications for Solution Design

The findings suggest that future iterations of the solution should explore both the optimal depth and the most effective format of financial explanations. Specifically, it is necessary to determine when concise messages (e.g., one-liners) suffice and when more comprehensive formats (e.g., interactive simulations) are required. In parallel, different explanatory strategies—such as proportional comparisons or narrative reasoning—should be tested for their capacity to influence users' perceptions and decision-making in high-stakes contexts.

5.3.2 C2 - Subscription Management

In contrast to C1, this lower-stakes scenario examined awareness of recurring, often passive, expenses. Here, Nilo's message was widely regarded as helpful for increasing awareness of cumulative spending, particularly when costs were visualised on an annual basis. One participant noted, "*Yes, because it gave me a clear indication and reasoning,*" while another endorsed the assistant's role in encouraging periodic reviews, suggesting, "*Propose a regular review.*"

Nonetheless, some interviewees claimed that they would have reached the same conclusion without external support. As one participant stated, "*Yes, but I would get it also without Nilo.*" This sets a minimum threshold for perceived value—interventions must exceed users' baseline level of financial literacy to justify their presence.

5.3.2.1 C2 - Implications for Solution Design

The results indicate that interventions related to recurring expenses must provide value beyond users' existing awareness in order to justify their presence. To this end, the assistant's recommendations should be personalised according to individual behavioural patterns—particularly the frequency and type of unused subscriptions. Furthermore, the visualisation of cumulative spending should be designed to evoke emotional engagement, for example by aggregating annual costs or using impactful framing, in order to encourage reflection and behavioural adjustment.

5.3.3 C3 - Response to Market hype

This scenario aimed to evaluate the assistant's capacity to curb impulsive financial decisions, particularly in emotionally charged contexts. Participants responded positively when Nilo was perceived as neutral and transparent. One respondent stated, "*I'd continue the conversation with Nilo as long as it seems unbiased and doesn't push me toward risky apps.*"

Importantly, the assistant's tone was instrumental in reducing impulsive urges and encouraging users to question their motivations. Nonetheless, decisions involving investments revealed the limits of superficial advice. Users demanded more comprehensive educational support, especially when personal risk tolerance and long-term implications were involved.

However, several participants highlighted that in the context of complex assets such as cryptocurrencies, neutrality alone was insufficient. As one interviewee noted, "*cryptocurrencies carry risks that can lead to either very high gains or heavy losses in not just days, but sometimes even minutes,*" underlining the need for deeper explanations and contextual education.

5.3.3.1 C3 - Implications for Solution Design

The findings highlight the importance of maintaining a neutral and transparent tone when addressing emotionally charged financial decisions. To strengthen user trust and reduce impulsivity, the assistant should use carefully crafted language and relatable metaphors—such as references to “hype bubbles.” Furthermore, it is advisable to test the relative effectiveness of direct recommendations versus open-ended prompts that encourage self-reflection, such as “*What makes you feel confident in this decision?*” These approaches may help sustain user engagement without triggering resistance or defensive reactions.

At the same time, feedback indicates that neutrality alone is not sufficient when decisions involve higher levels of financial risk. While Nilo can effectively temper emotional reactions, its value ultimately depends on complementing neutrality with robust, comprehensible insights that help users navigate varying degrees of complexity and risk exposure.

5.4 Hypothesis 4 results

The fourth hypothesis suggested that users who perceive clear value in the solution are willing to pay for access to its core functionalities. To assess this, participants were exposed to three pricing-related scenarios involving monthly subscriptions, freemium models with advertising and a shared plan. The aim was to evaluate users' willingness to pay, the conditions under which such willingness emerged and the boundaries of perceived value.

5.4.1 D1 – Willingness to pay for premium plan

This scenario explored whether users would accept a small monthly fee after achieving tangible financial benefits through the app—specifically, saving €40.

Many participants viewed the €2.99 monthly fee as reasonable or even negligible, particularly when contextualised by a prior saving of €40. One participant stated, *"€2.99/month is nothing these days,"* while another observed that *"it's less than what you'd spend on a coffee."* A third noted, *"It showed results, so with that situation yes and the price seems fair."*

A second group expressed conditional willingness to pay, suggesting they would evaluate the app's long-term value before committing. One interviewee remarked, *"I'd give it a few months to see if the premium version is worth it or if I'd be fine with the free version based on my habits."*

One participant rejected the idea outright, citing their own financial self-sufficiency: *"I wouldn't pay for it because I'm very meticulous with my spending."* This underscores that for some, perceived value must go beyond illustrative benefits and address an actual functional gap.

Others conveyed a preference for differentiated value, as reflected in the comment: *"Avoiding impulse purchases is something I can do on my own; if the app helped me save on everyday spending, then I'd pay for it."*

5.4.1.1 D1 - Implications for Solution Design

The findings suggest that users are more likely to accept a subscription fee when it is clearly justified by demonstrable savings. Therefore, the solution should explicitly communicate the core functionalities that support financial improvement and highlight both real-time and projected savings in a tangible manner.

Additionally, framing the price through relatable daily comparisons—such as equating €2.99/month to approximately €0.10 per day—may help reinforce the perceived value and reduce price sensitivity.

5.4.2 D2 - Accepting ads in exchange for free access

This scenario tested acceptance of a free version of the app supported by advertisements. Most participants accepted the idea, on the condition that ads remained non-intrusive. As one stated, *"Yes, not too long ads though, because then I'd stop using the app."* Another respondent observed, *"Of course, it's a freemium model like Spotify® or YouTube®, so we're used to this."*

Participants normalised this model, provided that the usefulness of the content was preserved. However, concerns emerged about trust and neutrality, particularly if the ads were perceived as biased or tied to financial institutions. One participant explained, *"I'd accept it, but ads could cause distrust if they appear to be linked to banks or other financial institutions."*

5.4.2.1 D2 - Implications for Solution Design

The findings indicate that while a freemium model is generally accepted, its success depends on maintaining user trust and safeguarding content integrity. A critical element in this regard is the careful management of advertisements: the app should strictly control the types of ads displayed, avoiding associations with financial institutions that could compromise its perceived neutrality.

In addition, user tolerance for different volumes and formats of advertising should be systematically tested to ensure that monetisation does not undermine engagement. Finally, clear in-app messaging should explain the rationale behind the freemium model and provide a transparent, unobtrusive upgrade path, reinforcing credibility while encouraging voluntary conversion.

5.4.3 D3 - Shared subscription plan

This scenario introduced the option of a shared plan at a slightly higher cost, aimed at couples, friends or family members. The shared model was well received. Participants viewed the €3.99 price as attractive, especially when contextualised as "just €1 more." One participant said, *"Yes, it's worth it,"* while another remarked, *"Very interesting... especially for couples or friends,"* highlighting the relational and motivational value of shared financial planning.

Participants valued the opportunity to collaborate, compare habits and set joint challenges. One user stated, *"I think it could really motivate people and make them more aware of their expenses, investments and goals,"* while another added, *"Sharing between two people and comparing habits, creating challenges or goals – very cool!"*

Some concerns were raised regarding privacy and data sharing within joint accounts. As one respondent cautioned, "*We have to be careful with what information is shared or can be seen between the group.*" Others emphasised that clear value must be demonstrated to convince another person to join: "*It's all about seeing the value in the offer.*"

5.4.3.1 D3 - Implications for Solution Design

Shared subscription plans offer a promising avenue to foster user engagement by leveraging interpersonal dynamics such as cooperation, comparison and mutual accountability. For these benefits to translate into both uptake and sustained usage, the solution must also provide fine-grained controls over data visibility, ensuring that privacy concerns do not undermine trust. Framing the app as a collaborative financial journey—particularly for couples or close friends—can then build on this foundation, enhancing its emotional appeal and perceived value.

5.5 Summary

Hypothesis	Validation Method	Key Findings	Design Implications
H1	Online survey (n = 56), with 59% aged 25–35.	Average self-rated literacy: 2.98/5. Indicates moderate perceived competence.	Confirms the relevance of a basic, accessible education module for young professionals.
H2	Same survey and 12 qualitative interviews (20+ hrs).	78.6% do not use Personal Finance apps; 22.7% abandoned one. Interviews revealed friction, lack of trust, and preference for human guidance.	Emphasise empathetic, clear, and adaptive support. Foster trust through transparency and non-institutional tone.
H3	Vignette-based interviews testing digital assistant "Nilo" in 3 simulated scenarios (C1..3) C1 – Buying vs Renting C2 – Subscription Management C3 – Response to Market hype	Users valued insight but found explanations too brief for high-stakes decisions. Trust remains a barrier. Annualised cost visualisation increased awareness. Some found Nilo's input redundant. Neutral tone reduced impulsivity. Users demanded deeper support in investment contexts.	Vary message depth. Test story-based and data-driven formats. Build trust for complex choices. Personalise based on spending habits. Use emotionally resonant cues to prompt reflection. Reinforce neutrality. A/B test between direct advice and reflective prompts.
H4	Interviews exploring willingness to pay under three pricing models (D1..3) D1 – Willingness to pay for premium plan D2 – Accepting ads in exchange for free access D3 – Shared subscription plan	Accepted if prior savings were demonstrated. Some preferred to evaluate long-term value first. Generally accepted if ads are brief and neutral. Trust issues emerged with institutional ads. Well received for couples/friends. Some concerns about data privacy and mutual value.	Communicate savings clearly. Frame price with relatable references (e.g. cost of a coffee). Limit ad categories. Explain freemium logic clearly. Monitor ad impact on credibility. Offer granular sharing controls. Highlight shared goal-setting and motivational benefits.

Figure 5.5 Results summary

6 Business Model update

This chapter revisits the initial Business Model Canvas in light of empirical evidence from surveys and interviews. By analysing each block, it shows how validated insights refine assumptions, confirm or discard hypotheses and ultimately enhance the strategic coherence of the model.

6.1 Canvas breakdown: block-by-block analysis

Following the insights obtained from both surveys and qualitative interviews, several modifications have been introduced to the initial Business Model in order to better align it with the observed needs and behaviours of the target audience. The updated canvas reflects these empirical findings and enhances the strategic coherence of the proposal.

6.1.1 Customer segments

The target segment remains composed of young professionals aged 25 to 35, with medium to high levels of education and digital fluency. However, two additional characteristics have emerged as critical differentiators: (i) a low-to-medium self-perceived level of financial literacy; and (ii) a tendency to experience emotional barriers when dealing with financial matters, including fear, doubt and inaction in the face of complexity.

Given the consistently positive feedback obtained from interviewees across several European countries, the initial geographical scope—originally limited to Spain—has been deliberately expanded to encompass the broader European context. This strategic shift is grounded in the observation that the underlying problem transcends national borders, raising a rhetorical question: *why confine the solution to a single country when the interest and relevance clearly extend across cultures?*

Embracing a pan-European perspective from the outset not only aligns with the empirical insights gathered but also opens the door to greater scalability and impact.

Finally, interviews also revealed significant differences in users' levels of financial self-efficacy. While some participants demonstrated high autonomy and were unlikely to seek external guidance, others expressed a strong need for structured support. This insight has implications for user segmentation within the product and particularly for the onboarding process, which must adapt to different profiles by adjusting tone, guidance intensity and decision-support features accordingly.

6.1.2 Value proposition

The core offering is now defined as a contextual and emotionally resonant financial education experience, articulated through a digital assistant. It delivers real-time, simplified explanations of users' financial behaviour, using human-like language and tone. This addresses the users' desire for trustworthy, non-institutional guidance and reduces psychological friction associated with financial decision-making.

Moreover, the inclusion of shared plans—designed for couples, friends or relatives—extends the platform's utility into collaborative financial wellbeing. These shared experiences are not only cost-effective but also foster mutual motivation and accountability, further enhancing user engagement.

Importantly, the experiment confirmed key hypotheses regarding users' sensitivity to data handling and their preference for applications perceived as trustworthy, transparent and emotionally accessible. The platform's approach—avoiding manipulation, maintaining clear intentions and respecting user privacy—was validated as a critical component of its perceived value.

6.1.3 Customer relationships

The relationship model has evolved from a predominantly self-service approach—based on automated FAQs and gamified interaction—towards a more contextualised and emotionally attuned engagement strategy. This transformation reflects users' expressed needs for clarity, trust and human-like guidance when navigating financial decisions.

Within this relational framework, the design and development of the digital assistant play a central role, activating adaptive feedback loops that not only enhance personalisation, but also foster a deeper and more sustained connection between user and platform. As users progress, the platform evolves with them, adapting its tone and support to their growing financial competence and changing goals.

Gamification remains a key element in this dynamic, not merely as a motivational tool, but as a strategy for sustained attention and long-term engagement.

Finally, user-to-user interaction through shared financial plans emerges as a valuable relational layer. These collaborative features were highly appreciated during interviews, not only for their functional value, but also for their capacity to foster social connection, mutual accountability and a sense of shared financial journey.

6.1.4 Channels

The onboarding experience has been confirmed as a critical channel for user engagement. Users consistently expressed the need for clarity and emotional reassurance during initial interactions with the platform. A well-designed onboarding process significantly reduces anxiety and increases retention, supporting the strategic decision to invest in a pedagogical and empathic first-use experience.

Although not explicitly addressed in the interviews, the tone and style of language preferred by users—clear, accessible and non-judgemental—will play a central role in shaping the platform’s content marketing strategy, particularly across social media.

Importantly, the digital assistant—originally conceived as a feature—emerges as a continuous communication channel in its own right. Through micro-interactions and contextual prompts, it maintains a dynamic dialogue with users, delivering guidance, feedback and encouragement in real time.

Additionally, interview feedback highlighted the value of personalised notifications as a mechanism for behavioural reactivation. Messages such as *“You’ve spent more than usual this week”* or *“You’re close to reaching your savings goal”* were seen as helpful nudges to sustain engagement.

Finally, a potential social channel may emerge through shared plans. The option to track and celebrate progress with others—whether partners, friends or relatives—was positively received and could serve as an organic mechanism for deeper user immersion and peer-driven motivation.

6.1.5 Revenue streams

The revenue model has evolved into a validated freemium structure. The premium plan (€2.99/month) is positively received when linked to demonstrable financial benefits, while a shared subscription (€3.99/month for two users) appeals to couples and close social ties.

Regarding the free tier supported by advertising, interviews revealed a degree of sensitivity around perceived manipulation or bias. While most users accepted non-intrusive ads as a familiar trade-off, concerns emerged when advertisements were perceived as being linked to financial institutions or compromising the platform's neutrality. Although ad content is typically managed by third-party networks beyond the platform's direct control, particular care will be taken with any partnership or sponsored content to ensure transparency and preserve trust.

Further A/B testing will be conducted to determine optimal upgrade triggers—such as cumulative savings, behavioural milestones or progress thresholds—in order to align the user's willingness to pay with moments of perceived value. In parallel, monetisation strategies will remain adaptive, allowing the platform to segment users based on financial self-efficacy and engagement level, rather than imposing a one-size-fits-all payment model.

6.1.6 Key activities

The set of core activities has been refined through user experimentation and direct engagement with early adopters. The onboarding process remains a central component, now enriched through scenario-based learning that allows users to interact with realistic financial situations from the very beginning. This is complemented by the continuous development of educational content, adapted in tone and depth to match users' behaviour and financial maturity.

Additional key activities have emerged from qualitative feedback, notably the integration of saving simulations, visual progress tracking and personalised reactivation notifications. These features require ongoing behavioural analysis and iterative optimisation to ensure relevance and effectiveness.

From a technical standpoint, the continuous development and maintenance of both the mobile and web-based platforms remain foundational. Equally important are the design and refinement of dialogue flows for the digital assistant, ensuring that interactions remain context-sensitive, trustworthy and emotionally attuned.

To support growth and retention, marketing efforts focus on content-driven strategies, while user support mechanisms are designed to resolve friction points efficiently. Finally, as recently mentioned, systematic A/B testing is embedded into the development process to evaluate content formats, pricing triggers and engagement features, enabling data-informed decisions across all areas of the user experience.

6.1.7 Key resources

Several key resources identified in the initial business model have been confirmed through user experimentation and feedback. The digital infrastructure—comprising the mobile application and web platform—remains essential to ensure scalability, performance and adaptability. Likewise, the need for a multidisciplinary team with expertise in full-stack development, UX/UI design and content strategy has been validated. These human resources are critical to delivering a seamless user experience and to translating educational goals into intuitive product design.

Beyond the original assumptions, the empirical insights have highlighted the strategic value of adaptive educational content as a living resource rather than a static asset. Users expect guidance that evolves with their financial situation, emotional state and behavioural patterns. This confirms the need for a dynamic content engine, capable of generating and adjusting material in real time. Consequently, behavioural data analysis and content personalisation mechanisms emerge as key capabilities, requiring both technological and analytical resources to sustain relevance and engagement.

Finally, the design and maintenance of the digital assistant—Nilo—has evolved into a core resource in itself. It serves not only as a functional tool but also as the primary communication interface with users. Developing Nilo’s conversational logic, emotional tone and trustworthiness will require dedicated resources in conversational design, behavioural psychology and user research. Similarly, the introduction of shared financial plans entails new technical, legal and UX considerations, calling for resources able to support collaborative financial experiences while preserving individual privacy and control.

6.1.8 Key partners

The updated model maintains strategic partnerships with digital distribution platforms (e.g., Google Play® and Apple App Store®), cloud infrastructure providers and foundations committed to advancing financial education. In all content-related collaborations, particular attention is given to the values and positioning of external contributors, in order to preserve the platform’s perceived neutrality and avoid undermining user trust.

In addition, new types of partnerships are envisioned to strengthen the psychological and emotional relevance of the solution. These include behavioural finance experts and user experience psychologists, who can contribute to the design of emotionally attuned interventions, as well as financial educators and micro-influencers active on social media, who may help expand reach and reinforce credibility.

Finally, partnerships with providers of privacy-preserving information storage and consent-based sharing frameworks are considered essential. Such collaborations would enable the development of collaborative features—such as shared plans—while at the same time safeguarding confidentiality and ensuring the ethical use of personal information.

6.1.9 Cost structure

The baseline cost structure of the business model has been largely confirmed through empirical work. Core expenses include continuous development and technical maintenance of both mobile and web platforms, alongside infrastructure such as cloud services, analytics systems and third-party integrations. Personnel costs also remain significant, particularly for full-stack developers, UX/UI designers and content creators. In addition, sustained investment is required for the production and updating of educational materials—especially multimedia formats—and for the design and refinement of user onboarding and engagement flows.

Building on this baseline, new cost dimensions have emerged with the introduction of the digital assistant as a central feature of the user experience. Designing and maintaining Nilo involves not only technical development, but also the creation of emotionally coherent dialogue flows, continuous behavioural testing and adaptation based on user feedback. This requires resources in conversational design, behavioural analysis and content moderation. In parallel, implementing savings simulations, visual progress tools and personalised reactivation triggers introduces further layers of technical complexity and testing demands.

Beyond technical development, additional costs arise from safeguarding user trust, particularly through secure data handling and consent-based sharing mechanisms. As the platform evolves to support collaborative features—such as shared financial plans—new investments will be required to address legal, technical and user experience requirements. Moreover, the involvement of external experts in behavioural finance and trusted content creators may entail costs related to co-design, partnership management or compensated collaboration, especially in the early phases of credibility-building and outreach.

6.2 Visual synthesis of the renewed Business Model Canvas

In this updated version of the BMC, colour coding is used to reflect the evolution of each component based on empirical validation. Blocks marked in **green** indicate validated elements, those in **orange** represent modified components, while **grey** highlights hypotheses that have been discarded. If a block is added, **blue** is used to denote its introduction into the model.

Given the project's intention to reach the broadest possible audience, particular attention has been paid to accessibility in *visual representation*. To ensure clarity regardless of colour perception, symbols have been added to the top-left corner of each block—except for green ones. The following convention is used: orange – square, blue – triangle and grey – circle.

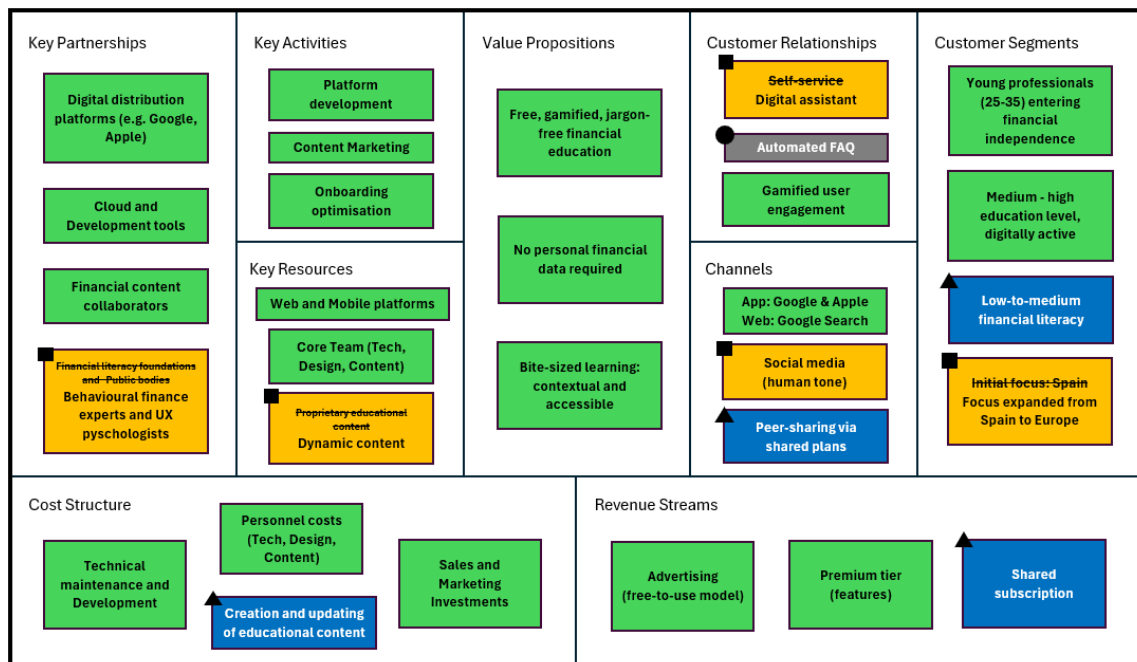


Figure 6.2 Visual synthesis of the renewed Business Model Canvas

7 Minimum Viable Product design

This chapter presents the design, implementation and evaluation of the project's Minimum Viable Product. Building on the insights gathered in previous stages, the MVP serves as a practical instrument to test whether the proposed value resonates with users. Rather than delivering a functional prototype, the focus lies on demonstrating desirability and clarity through an accessible video format, thereby aligning with the Lean Startup principle of learning before investing in full-scale development.

7.1 MVP selection

As reiterated throughout the thesis, the primary objective of the MVP is to demonstrate clear value to potential users. According to the Lean Startup methodology, this value must be communicated through rapid, iterative experimentation—an approach extensively discussed in [subchapter 2.2](#). There, several canonical examples such as Dropbox®'s video MVP, Zappos®' Wizard of Oz MVP and Wealthfront®'s concierge MVP are examined, as presented by Ries (2011), Ghezzi (2019) and Furr and Dyer (2014).

In this context, a *Video MVP* is particularly well suited at this stage for four main reasons: (i) it is far less resource-intensive than building a functional prototype or simulating backend operations manually; (ii) the learning sought relates primarily to perceptions and behavioural intent rather than technological feasibility, making a video an adequate instrument; (iii) the project is still in an exploratory phase, focused on validating desirability and clarity before committing to development; and (iv) there is ready access to early users through personal and professional networks, enabling realistic exposure to the intended audience.

7.2 MVP design

The Minimum Viable Product (MVP) designed for this stage of the project consists of a short-animated video, with an estimated duration of 90 to 120 seconds. This format was selected as it enables the communication of both functional and emotional value without requiring backend development. Rather than delivering a working prototype, the objective is to allow potential users to visualise the core experience and assess its relevance.

The first step involves crafting a concise narrative based on relatable situations faced by the target audience. The storyline follows a young professional during a typical week, facing three financial dilemmas. In the initial scene, the user opens their banking app and feels uncertain about recent spending. A virtual assistant offers a gentle insight, helping the user detect a forgotten subscription. The tone remains supportive and non-judgemental throughout.

In the second scene, the user considers making an impulse purchase while browsing online. The assistant intervenes with timely guidance, prompting a reflection on long-term goals. A final situation presents a more complex decision: receiving an offer for a financial product with unclear terms. The assistant provides a clear, jargon-free explanation that encourages the user to pause and assess before acting.

The three scenarios were deliberately chosen not only for their everyday relevance but also for their ability to illustrate a gradual progression in user engagement. The purpose of this narrative structure is to deliver value progressively by activating different layers of cognitive and emotional engagement. Initially, viewers are expected to recognise aspects of their own financial behaviour in the protagonist, triggering familiarity through visual and associative mechanisms. This empathetic identification creates a psychological bridge that facilitates message reception. Subsequently, the assistant's interventions provide clarity and emotional reassurance, addressing the viewer's latent anxieties.

Finally, the message transitions towards the long-term advantages of sustained support, positioning the application as a reliable financial companion. This approach draws on the insights of Miralles (2024), who argues in *Persuasión y Poder* that the human mind processes information through three primary channels: visual, associative and emotional. Designing the narrative to align with all three dimensions strengthens the persuasive impact of the MVP and increases the likelihood of authentic user resonance.

From a technical perspective, the video will be created using accessible animation and voice-over tools. It will be embedded in a simple landing page that also presents the project's core message and a call-to-action inviting user feedback. This environment allows for the observation of spontaneous reactions, offering an early test of the central hypothesis: that users can perceive clear value in contextual, supportive financial guidance.

7.3 MVP evaluation

To evaluate the effectiveness of the video MVP, several key metrics will be tracked via the landing page. These include: (i) the video completion rate, to assess user engagement; (ii) the number of replays, which may indicate perceived value or curiosity; (iii) a brief feedback form focused on clarity, emotional resonance and usefulness; and (iv) open-ended responses that may reveal spontaneous interest—such as willingness to share the tool, subscribe for updates or pay in the future.

While limited in statistical power, these metrics provide initial behavioural signals on whether the proposed value proposition is understood and appreciated. The insights gathered will serve as the basis for deciding the next step.

Based on the outcome, two strategic paths are foreseen: (i) if results are positive—indicating comprehension, emotional alignment and interest—the next step will involve the development of an interactive prototype, incorporating basic functionality to simulate real usage and explore onboarding dynamics; or (ii) if the metrics suggest low engagement or unclear value, the video will be revised and re-tested. The emphasis will be on enhancing narrative clarity; improving emotional framing; and adjusting the tone or visual language before proceeding to more advanced stages of development.

7.4 End-to-end MVP flow

This flow diagram below illustrates the step-by-step progression from initial narrative design to early user testing, ensuring that each iteration is grounded in user feedback. By validating perceptions of value through behavioural metrics, the process identifies whether the proposed solution resonates with real needs. Ultimately, it serves as a structured path toward building a prototype that aligns closely with what potential customers truly want—and are willing to pay for.

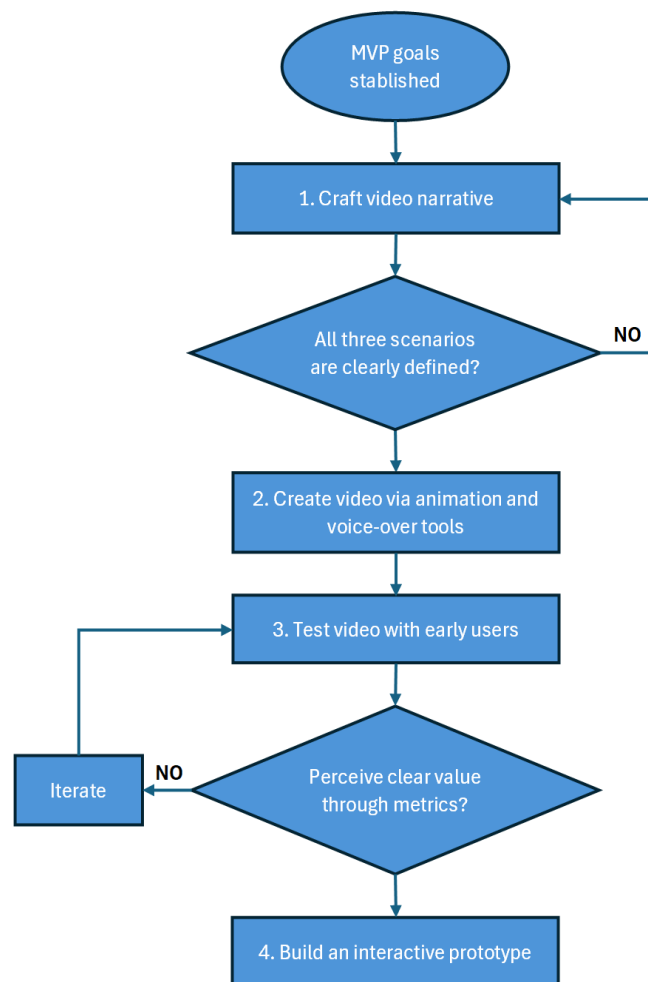


Figure 7.4 End-to-end MVP flow

8 Strategic implications and Next Steps

This chapter draws together the strategic lessons emerging from the research and translates them into actionable next steps. The first part reflects on product–market fit, emotional competence, external risks and the sustainability of the model, highlighting how empirical findings reshape the venture’s strategic orientation. The second part outlines the forthcoming priorities—resources, financial planning, partnerships and product development—marking the transition from validation towards execution.

8.1 Strategic implications

8.1.1 Product–market fit learnings

Following the research carried out, the need for this solution is clearer and the business model—anchored in an innovative educational tool—provides the initial momentum to address it. However, when examining other companies in the space, one recurring insight stands out: product–market fit is rarely achieved on the first attempt. Beyond the research phase, what lies ahead is a process of iteration—testing multiple MVPs and observing which version best connects with users. In short, words and good intentions are not enough; only consistent behavioural engagement can validate whether interest truly translates into a sustainable business model.

While there is a common perception—often reinforced by demographic or cultural stereotypes—that younger audiences prioritise free access above all else, the findings reveal a more nuanced reality. When the product delivers consistent, demonstrable value, users are willing to invest in it, reframing payment not as a barrier but as a logical step in sustaining the service. This shift highlights a strategic opportunity: by ensuring that perceived value is both immediate and recurring, monetisation can emerge organically as part of the user journey rather than as an imposed trade-off.

Last but not least, the diversity of user responses highlights the need to segment not by demographics, but by perceived value and financial self-efficacy. Two users of the same age and income level may react completely differently: one might feel confident and in control, while the other may avoid financial decisions out of fear or uncertainty. Designing for both requires a flexible structure that adapts to psychological readiness, not just socioeconomic variables. This insight challenges conventional assumptions and opens the door to a more nuanced strategy—one that tailors guidance, messaging and monetisation pathways based on behavioural signals rather than static profiles.

8.1.2 Competence

One of the key factors identified for delivering a more effective service is the capacity to remain close and emotionally attuned to users. Interviews revealed a pervasive emotional barrier surrounding personal finance—fear. Many individuals experience deep-seated insecurities when managing their finances, which are rarely addressed by existing tools or institutions. This latent emotional need highlights an area where digital financial solutions often fall short.

From a strategic perspective, the role of competitors is not limited to benchmarking functionalities or pricing models. Instead, competitive analysis becomes most valuable when it uncovers what remains unsolved—particularly in terms of emotional relevance and psychological safety. The failure of other platforms to resolve these frictions suggests that competence in this domain must extend beyond technical robustness. It must include the ability to design interactions that reduce anxiety, build trust and foster gradual financial autonomy.

In this sense, emotional competence becomes a differentiating factor. It enables the solution not only to inform, but to support behavioural change by creating an environment in which users feel understood and respected. As the market matures, addressing these subtler dimensions of user experience may prove more sustainable than relying on purely functional or transactional advantages.

8.1.3 Risks found

According to Kaplan and Mikes (2012), external risks are characterised by their origin beyond the organisation's control. Unlike preventable or strategy-related risks, these are typically environmental, political or systemic in nature and demand resilience rather than mitigation. In the context of a digital financial education platform, several external risks must be carefully considered:

(i) Regulatory uncertainty. The platform must avoid any form of financial advice or investment recommendation that could trigger regulatory scrutiny. Content creators and educational tools in the personal finance space often navigate a fine line between information and regulated advice. In the EU, directives such as MiFID II strictly regulate who can provide financial recommendations and local authorities (e.g. CNMV in Spain, Finansinspektionen in Sweden, BaFin in Germany) have issued warnings or fines against unauthorised entities.

As a result, all educational content must remain clearly non-prescriptive, framed as general knowledge rather than individual advice. This is especially relevant in markets with differing legal definitions of “investment advice.”

(ii) Political and legal risks. New regulations concerning data protection (e.g. the GDPR in Europe), digital taxation, AI usage or financial education standards could significantly impact the platform’s operations. There is a risk that financial education tools—particularly those using behavioural nudging or AI-driven feedback—face future restrictions or ethical concerns. Additionally, increased politicisation of digital finance or stricter licensing requirements may create entry barriers in certain jurisdictions.

(iii) Technological disruption. Choosing one technology over another involves a constant trade-off. In a rapidly evolving ecosystem, the emergence of new banking APIs, shifts in social media algorithms or advances in large language models (LLMs) could render parts of the platform obsolete or less effective. Remaining technologically relevant requires continuous monitoring and adaptability, not only to keep up with innovations, but also to anticipate changes that could affect core functionalities such as content delivery, user interaction or privacy standards.

(iv) Macroeconomic shifts. Consumer willingness to pay for digital services is highly sensitive to economic context. In times of economic downturn, users may deprioritise spending on non-essential applications. However, this risk may also present an opportunity: if the platform succeeds in positioning itself as a tool that reduces financial stress or improves control during uncertainty, its perceived necessity may increase. Storytelling and emotional resonance, as demonstrated by companies like Spotify® or Netflix®, can play a pivotal role in shifting user perception from “optional” to “indispensable.”

(v) Low-probability, high-impact events. The platform must be prepared for systemic shocks such as pandemics, geopolitical conflicts, regulatory bans, prolonged outages of digital infrastructure or shifts in educational systems. Although infrequent, such events can disrupt user behaviour, operational continuity and long-term strategy. Building resilience mechanisms and contingency plans is essential to safeguard the project's viability under extreme conditions.

8.1.4 Sustainability and scalability

Sustainability, in its broadest sense, refers to the *capacity to meet present needs without compromising the ability of future generations to meet their own* (World Commission on Environment and Development, 1987). In this context, it involves designing a solution that is both economically viable and socially responsible over time. The proposed business model supports this ambition through a structure that is adaptable, cost-efficient and inherently scalable. With low marginal costs and near-zero replication expenses, the platform can grow without requiring disproportionate investment.

Additionally, the pedagogical design—based on modular micro-lessons and scenario-based learning—ensures that the platform is easily adaptable to different financial realities and cultural contexts. This structure allows for the progressive inclusion of new user segments, such as students, couples or self-employed individuals. Interviews with prospective users across countries confirmed that the underlying need is shared globally, reinforcing the solution's capacity for responsible international scalability.

Aligned with the principles of the *UN 2030 Agenda for Sustainable Development*, the project contributes directly to three core *Sustainable Development Goals*: (i) Goal 4 (Quality Education) is addressed through inclusive, adaptable and engaging financial learning; (ii) Goal 10 (Reduced Inequalities) is advanced by empowering underserved populations with the tools for financial autonomy; and (iii) Goal 12 (Responsible Consumption and Production) is reflected in the promotion of conscious spending habits and long-term financial planning. These contributions are measurable through engagement analytics and learning outcomes, reinforcing the platform's commitment to both purpose and process.

Finally, the model opens the door to strategic partnerships with universities, NGOs and public institutions whose missions align with that of the platform. These collaborations can provide high-impact, low-cost distribution channels while enhancing the project's reputational capital and long-term societal value. By combining economic scalability with educational equity and emotional accessibility, the platform aspires to contribute meaningfully to financial wellbeing—today and for future generations.

8.2 Next Steps

This chapter outlines the next steps to be taken in order to move from validation to execution. It covers four key areas: required resources, financial implications, strategic partnerships and further product development.

8.2.1 Required resources

The proposed solution benefits from being fully digital, thus avoiding the logistical complexities and costs associated with physical products and supply chains. In the short term, two types of resources are prioritised: human capital and technical platforms.

The most urgent need lies in technological talent to accelerate MVP development. The ideal profile is a young, ambitious individual with long-term commitment and entrepreneurial mindset. Long-term alignment is crucial, as studies suggest that temporary outsourcing—especially in early operational roles—rarely delivers sustainable results (Quinn & Hilmer, 1994). Rather than hiring short-term freelancers, the objective is to build a team that shares the vision and is motivated by purpose.

8.2.2 Financial implications

Although detailed financial projections remain premature at this stage, it is essential to begin outlining a viable economic model to guide early-stage decisions and ensure strategic coherence. This requires not only identifying potential revenue streams, but also actively managing the cost structure and evaluating whether the project may be *bootstrapped* or will require external capital injection, depending on early traction and validation outcomes.

The preliminary revenue model is structured in two phases. The first involves a freemium approach, already partially validated as described in [chapter 6.1.5](#), where pricing experiments and qualitative interviews confirmed interest in a low-cost premium tier and a shared plan, particularly among users with close social ties. The second phase envisions a *B2B2C strategy*, leveraging collaborations with universities, financial education providers or public institutions. In this model, the platform is positioned as a value-added service embedded within broader learning or social inclusion initiatives, offering scalability with relatively lower customer acquisition cost (CAC).

From a cost perspective, the project will initially adopt a lean MVP strategy, aimed at validating the desirability and usability of key features without incurring high development costs. Early-stage expenses will primarily relate to app prototyping, UX design and user testing, while ongoing costs are expected to derive from operations (hosting, maintenance), third-party services (e.g. AI-based tools), content creation, platform subscriptions and targeted marketing.

To inform future financial modelling, several variables require attention:

(i) **Willingness to pay – Who would pay?** Initial interviews and surveys suggest promising interest among young professionals for a platform combining financial education with personalised guidance. Many respondents favour a freemium model, with the option to upgrade if the value is clear and sustained.

(ii) **Conversion rate – How many will convert?** Beyond willingness, the key issue is the proportion of freemium users who upgrade to premium. Literature suggests a range of 2–10% depending on product–market fit, yet this must be validated empirically (GetMonetizely, 2025).

(iii) **Customer Acquisition Cost (CAC) – How much does it cost to acquire them?** Estimating acquisition costs across different channels is critical. Organic strategies such as referrals, influencer partnerships and social media may reduce reliance on paid campaigns. For instance, Duolingo® has achieved a CAC as low as \$1–2 per user ($\approx$ €1.75 at August 17, 2025) thanks to strong viral loops and word-of-mouth dynamics (Investors sous chef, 2024).

(iv) **Retention and churn – How long do they stay?** Sustained engagement determines whether customers generate lasting value or exit quickly, forcing higher acquisition efforts. Industry benchmarks indicate that mature SaaS companies often face monthly churn rates between 3% and 7% (HubiFi, 2025), underscoring the need to design mechanisms that minimise early drop-off.

(v) **Lifetime Value (LTV) – How much are they worth in total?** The balance between conversion, pricing and retention defines the average revenue per paying user and sets the benchmark to compare against CAC.

In practical terms, LTV can be thought of as the product of three factors: how much a user pays on average each month, how long they typically remain subscribed and the gross margin retained per customer. This makes retention particularly critical, since even modest improvements in subscription length can disproportionately increase lifetime value.

(vi) **Monthly Active Users (MAU) – What is the overall scale?** The total active user base determines the revenue ceiling and the ability to reach breakeven.

(vii) **Variable costs per user – How much does it cost to maintain them?** Hosting, AI services and customer support create a cost floor that must remain under control to preserve margins.

Following the discussion of the seven key variables, three exploratory scenarios are presented in the following table (see the summary of every scenario in [Table 8.2.2](#)) to illustrate potential financial outcomes. These scenarios are purely hypothetical and serve as guiding heuristics rather than forecasts. Their objective is to highlight the sensitivity of the model to variations in user behaviour, pricing and cost assumptions.

Scenario 1: Loss. With 50,000 monthly active users, a modest 5% conversion rate and an average subscription of €4, revenues would amount to €10,000 per month. However, with a variable cost of €1 per user, total monthly costs reach €50,000, leading to a negative balance of –€40,000.

Scenario 2: Breakeven. Assuming the same base of 50,000 active users but doubling the conversion rate to 10% and reducing variable costs to €0.4 per user, the platform reaches €20,000 in revenues against €10,000 in costs, resulting in break-even.

Scenario 3: Profit. Building on the previous case, if the conversion rate remains at 10% but the average subscription price increases to €5 while keeping variable costs stable at €0.4 per user, monthly revenues rise to €25,000 against €20,000 in costs, yielding a positive balance of €5,000. Retention under this scenario would further enhance LTV, signalling sustainable upside potential.

Table 8.2.2 Financial scenarios evaluation

<i>Variables</i>	<i>Scenario 1: Loss</i>	<i>Scenario 2: Breakeven</i>	<i>Scenario 3: Profit</i>
<i>Monthly Active Users (MAU)</i>	50,000	50,000	50,000
<i>Conversion rate</i>	5% → 2,500	10% → 5,000	10% → 5,000
<i>Average subscription</i>	€4	€4	€5
<i>Monthly recurring revenue</i>	€10,000	€20,000	€25,000
<i>Variable cost per user</i>	€1	€0.4	€0.4
<i>Total variable costs</i>	€50,000	€20,000	€20,000
<i>Result (monthly)</i>	-€40,000	€0	€5,000

It is worth noting that CAC has not been explicitly incorporated into the scenarios. This is because acquisition costs are typically one-off expenses, while the current exercise focuses on recurring operational dynamics. In early-stage models, CAC is better assessed in relation to LTV through the LTV/CAC ratio, since the initial acquisition investment becomes progressively diluted as retention increases (Fader & Toms, 2018).

Overall, these exploratory scenarios illustrate the importance of building a sound economic foundation early on. Beyond projecting revenues, the focus must be on actively managing the cost structure, ensuring retention and monitoring the balance between LTV and CAC.

8.2.3 Strategic partnerships

Several partnership avenues are considered essential from the outset. Collaborations with educational institutions and universities are envisioned as a way to integrate the platform into financial orientation programmes, providing access to young users at the early stages of their financial independence. In parallel, partnerships with trusted content creators and financial micro-influencers—particularly those active on most used social media platforms—are expected to enhance both visibility and credibility among target audiences. Furthermore, alliances with NGOs and public entities focused on financial inclusion would reinforce the platform’s social mission.

Importantly, the project deliberately avoids external partnerships in its early phase, particularly with actors such as banks or fintech companies, whose commercial incentives may conflict with the platform’s educational ethos. These examples illustrate the type of alliances that, while potentially attractive for resources or visibility, could undermine neutrality. Preserving strategic independence is therefore regarded as essential to maintaining long-term trust and credibility.

8.2.4 Further product development

Following the release of the Video MVP and the analysis of initial feedback, the development of the full MVP will begin. Rapid iteration cycles will guide product evolution through a lean approach. A/B tests will also be conducted to determine whether the platform should remain available on both mobile and desktop or whether one of the two channels should be prioritised.

Subsequent features will include a modular system of adaptive micro-lessons and more advanced behavioural nudging tools. Continuous monitoring of key metrics will inform these iterations, ensuring that product development remains tightly aligned with user needs and strategic goals.

9 Discussion

The findings derived from this project align closely with prior academic work on the Lean Startup methodology, as discussed throughout the theoretical framework. Engaging with the theory prior to implementation proved decisive. The conceptual foundation—anchored in Lean Startup and its critics—shaped the design of research tools and guided the sequence of actions, influencing the quality and relevance of empirical insights. This was particularly evident in the interviews, whose design reflected theoretical clarity and yielded richer, more objective empirical evidence.

Regarding RQ1, the interviews uncovered behavioural and emotional barriers that prevent young professionals from engaging with existing financial education tools. While survey participants expressed relative confidence in their financial habits, the qualitative findings revealed a contrasting picture of uncertainty, misconceptions and emotional discomfort. These insights highlight the importance of qualitative methods in capturing the contextual and affective dimensions often overlooked in standardised questionnaires. They also confirm that unmet needs persist in financial education and that existing applications are often perceived as insufficiently supportive, complex or detached from real-life decision contexts.

Addressing RQ2, the findings indicate that structured hypothesis testing can serve as a robust mechanism to support early validation of a digital financial education solution. By breaking down assumptions into testable statements and confronting them with empirical data, the research process reduced ambiguity and generated evidence that directly informed decision-making.

This approach demonstrated its value in prioritising user-centric insights over speculative design, ensuring that the solution evolved in response to verifiable needs rather than assumptions. At the same time, the process exposed certain limitations already noted in the literature, particularly the danger of constraining the innovation space if validation efforts focus too narrowly on immediate user feedback without considering long-term behavioural change.

The decision to postpone the construction of a working prototype was ultimately strategic. In direct connection with RQ3, the results demonstrate that early-stage theoretical validation can indeed generate actionable insights that reduce the risk of developing irrelevant or ineffective products. The data collected during the exploration phase indicated that refining problem understanding and deepening user insights would create more value than prematurely launching a minimum viable product. Without this step, the solution would likely have been misaligned with actual user needs.

Ultimately, the process has highlighted the value of combining theoretical discipline with empirical openness. The Lean Startup, when applied rigorously yet critically, does not offer predefined answers, but it enables the construction of better questions. In that sense, this thesis does not present a finished product but rather a validated trajectory worth pursuing. Looking ahead and considering that the work began as a theoretical exploration and may ultimately result in practical implementation, future development could involve the creation of a real product, supported by a robust financial plan and further hypothesis validation. The project will continue to be developed with the ambition of becoming a real-world success story and a reference case for similar initiatives.

10 Conclusion

This thesis has demonstrated that combining structured experimentation with theory-driven approaches offers a viable and effective pathway to identifying and validating financial education needs among young professionals. In addressing RQ1, the results show that young professionals continue to face unmet needs and barriers in managing their finances, particularly when engaging with existing digital financial education tools. While survey data suggested confidence, qualitative findings revealed uncertainty, misconceptions and emotional discomfort, confirming both the relevance of the problem and the shortcomings of existing applications.

Regarding RQ2, the findings indicate that structured hypothesis testing can provide a rigorous mechanism for early validation of a digital financial education solution. By transforming assumptions into testable statements and subjecting them to empirical scrutiny, the process reduced ambiguity and prioritised user-centred insights over speculative design. At the same time, it highlighted limitations already discussed in the literature, particularly the risk of restricting innovation if validation relies too narrowly on immediate user feedback.

Importantly, this thesis also shows that it is possible to create early traction and validate a concept without a working prototype. This outcome directly addresses RQ3 by demonstrating that early-stage theoretical validation can yield actionable insights and stakeholder interest before a product exists. This ability to gain recognition was further reinforced by the project's acceptance into the Lund University Incubator, confirming that a clearly articulated problem, grounded insights and rigorous methodology can capture attention even at a pre-product stage.

Naturally, the project was not without limitations. Time constraints were the most significant, restricting the number of validation loops and preventing the development of a functional MVP. Some hypotheses could not be tested fully and the behavioural analysis remains at an early stage, which affects the depth of the conclusions drawn for RQ1.

Entrepreneurship remains a young and evolving field. As shown in the theoretical framework, many of its foundational concepts have emerged only in recent decades. In this context, the process documented in this thesis may serve as a practical roadmap for aspiring founders who lack abundant resources but seek to test whether their ideas resonate with real market needs.

Nonetheless, the work lays a strong foundation for further academic and methodological development. Future research could expand the scope of validation loops, refine the integration of qualitative and quantitative methods and test the robustness of structured experimentation when combined with theory-driven approaches across different contexts. In addition, exploring how behavioural differences manifest in diverse user segments may strengthen the generalisability of the findings, contributing to a more comprehensive understanding of financial education challenges.

In closing, this thesis does not present a final product but rather a validated learning journey. When applied critically, hypothesis-driven experimentation is not a shortcut to success, but a disciplined way to ask better questions—and, with time, build better solutions that respond to real human needs, fulfilling the aims set out in RQ1, RQ2 and RQ3. Ultimately, the central focus of this work has been to validate assumptions about unmet needs and potential solutions in digital financial education, rather than to design or deliver a finished product.

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Appendix A Market Opportunity Navigator

This appendix provides the detailed inputs and evaluations that underpin the application of the Market Opportunity Navigator (MON) in Chapter 3.2. It documents the identification of the venture's core abilities, the derivation of the opportunity set and the structured assessment of the four selected opportunities according to the MON's *Potential* and *Challenge* criteria. The inclusion of these materials ensures methodological transparency and allows for a full understanding of the reasoning behind the prioritisation decisions described in the main body of the thesis.

A.1 Core abilities and competencies

The process began with the identification of four primary ability clusters that represent the venture's foundational resources.

The first cluster, *Detailed consumer knowledge on financial apps*, is defined by knowledge of pricing strategies; understanding of core functionalities; direct experience with both freemium and subscription business models; and more than two years of consistent usage of financial management applications.

The second cluster, *Education on how to manage money*, reflects a background in financial coaching and peer support; familiarity with term deposits and the stock market; exposure to both traditional and digital formats; and a combination of self-directed learning and structured courses in finance.

The third cluster, *Advanced use of gamified and learning apps*, is grounded in over three years of sustained usage of leading platforms such as Duolingo® and Forest®; insight into gamification mechanisms including streak systems and goal tracking; a behavioural understanding of user habits; and exposure to markets receptive to gamified solutions.

The fourth cluster, *Psychology towards money*, is based on research on financial anxiety and self-management; the capacity to convert emotions into learning; the ability to remain calm under pressure; and frequent exposure to others' financial struggles.

A.2 Generation of the opportunity set

Drawing on these abilities, four opportunity directions were defined. The *Interactive savings education module* targets young professionals aged 25 to 35 seeking structured, reliable guidance to improve their financial habits. The *Real-time spending behaviour interpreter* is designed for busy professionals aged 30 to 50 who require instant clarity on their spending patterns. The *"What if" financial simulator* aims at mid-career planners aged 30 to 50 and risk-aware individuals aged 25 to 45, providing a safe environment to test hypothetical financial scenarios. Finally, the *Couples' financial alignment tool* addresses the needs of couples aged 25 to 40 who are beginning to coordinate their financial lives.

A.3 Evaluation of the Interactive savings education module

The following subchapters present the evaluation of the four market opportunities identified through the Market Opportunity Navigator. Each opportunity was assessed against three *Potential* and three *Challenge* criteria, using the standard MON scale from Low to Super High. While the framework provides structured guiding questions, it is important to acknowledge that the scoring process inevitably involves an element of subjectivity, reflecting the venture's specific context, priorities and available evidence at the time of assessment.

The italicised excerpts included in each subchapter correspond to the reasoning and conclusions reached during the evaluation process. These statements summarise the key insights, assumptions and interpretations that justified the assigned scores, thereby offering transparency into the decision-making process underlying the prioritisation of opportunities.

A.3.1 Evaluation of the Interactive savings education module

The first opportunity centres on young professionals aged 25 to 35 who are seeking structured and reliable guidance to improve their financial habits. As highlighted, *“There is a clear unmet need among individuals aged 25 to 35: they are beginning to generate income and actively seek guidance on how to manage it effectively... By combining relevance, clarity and user engagement, the application offers a compelling alternative to current tools.”* The market volume is substantial, as *“the 25–35 age group represents a significant demographic segment in most developed economies... these factors support a strong projection for market growth.”*

Economic viability is considered high, supported by scalability and accessible pricing models, though retention will be critical given low switching costs and potential competition.

Implementation obstacles are moderate, primarily related to coordination among UI/UX and development teams and the need for a clear content strategy. Time to revenue is relatively short, with agile sprints enabling deployment within three to four months, though monetisation depends on early user retention. External risks are low to moderate, centred on behavioural inertia, which could be mitigated through gamified and contextual learning techniques.

A.3.2 Real-time spending behaviour interpreter

The second opportunity targets busy professionals aged 30 to 50 who seek instant clarity on their spending without committing to structured financial education. As described, *“Busy professionals aged 30 to 50 often manage a significant portion of their household finances... few provide real-time, personalised interpretation, making this a potentially distinctive offering.”* The target market is smaller than that of other opportunities, representing 10–15% of the demographic, yet demand remains stable due to the persistent appeal of time-saving tools.

Economically, the solution requires considerable upfront investment to develop a behavioural feedback engine, but *“the perceived value can foster strong retention and justify the price, particularly among professionals seeking efficiency and clarity.”* Implementation complexity lies in developing the core algorithms for reliable, contextualised feedback, with higher initial funding needs than lightweight apps. Time to revenue may take up to a year, though rapid distribution is possible once launched. External risks are moderate, with adoption resistance potentially mitigated by a compelling value proposition and streamlined user experience.

A.3.3 'What if' financial simulator

A third avenue for development involves mid-career individuals, typically aged 30 to 50, who may be facing significant life decisions such as changing jobs, relocating or starting a family. As noted, *“The proposed solution offers a highly practical and efficient way to simulate future financial outcomes... potentially high value for a focused user segment, but with limited immediate pull unless the relevance is strongly communicated.”* The addressable market is narrower than the demographic suggests, as *“only a fraction of this group is both engaged enough with their financial planning and aware of the possibility of using simulation tools for decision-making.”*

The digital nature of the solution supports favourable margins after the initial infrastructure is built, though monetisation may be challenging due to episodic usage patterns. As observed, *“Recurring subscription models may be difficult to sustain unless the simulator is embedded within a broader platform.”* Implementation is technically feasible but requires predictive engines and may face funding challenges due to uncertain retention. Time to revenue could extend up to a year, with delayed monetisation unless integrated into broader financial behaviours. External risks are moderate, including user unfamiliarity and potential competition, with psychological barriers also influencing adoption.

A.3.4 Couples' financial alignment tool

The final opportunity addresses the need for structured financial communication between partners managing shared expenses, decisions and goals. As described, *“The proposed solution addresses this challenge directly, offering a neutral and structured environment to facilitate transparency, planning and mutual trust... The emotional and relational value of such a tool strengthens the motivation to engage with it, especially in the early phases of financial cohabitation.”* The market is niche within the 25–40 age range, but *“the emotional salience of the use case may increase virality and engagement within that niche, partially offsetting the limited reach with stronger depth of user involvement.”*

The product benefits from low development and maintenance costs and is well suited to monetisation via subscriptions, particularly if framed as a low-cost tool for relational harmony. Implementation is technically straightforward, though its niche appeal may limit investor interest unless early adoption and engagement metrics are strong. Time to revenue is expected to be short due to the everyday relevance of the use case and recurring usage patterns. External risks include the perception that informal tools are “good enough” and possible discomfort with financial transparency, making positioning as a relationship enabler rather than a control mechanism essential for adoption.

A.4 Summary of results

The evaluation process placed the *Interactive savings education module* and the *Couples' financial alignment tool* in the Gold Mine quadrant of the Attractiveness Map, indicating high potential and manageable challenges. The *Real-time spending behaviour interpreter* was positioned in the Quick Win area, reflecting its narrower market but strong differentiation potential, while the *"What if" financial simulator* was placed in the Questionable zone due to adoption and monetisation uncertainties. These findings, combined with the degree of alignment between opportunities and the venture's core abilities, supported the selection of the *Interactive savings education module* as the primary focus for immediate development.

Appendix B Initial market scope and justification

This appendix presents a comparative analysis between Spain and Sweden to determine the most appropriate initial market for launching the gamified financial education application. The decision described here is made during the Business Model Canvas stage, prior to the experimentation and validation phases of this thesis. Eight contextual factors are examined, each informed by relevant data and qualitative observations, followed by a synthesis justifying the prioritisation of Spain for the first implementation.

B.1 Contextual factors analysis

B.1.1 Cultural attitudes towards money and personal finance

Cultural attitudes strongly shape how individuals perceive, manage and prioritise their finances. In Sweden, societal norms are influenced by the concept of *lagom*—“not too much, not too little”—which encourages moderation, balance and long-term sustainability. This cultural orientation aligns with disciplined saving habits and self-management, meaning that Swedish users are generally more proactive in managing personal finances. As a result, tools introduced in Sweden may need to offer advanced functionalities or nuanced personalisation to achieve differentiation.

In Spain, personal finance is often a private or even taboo subject, discussed informally within close circles. This lower openness to conversations about money creates both a challenge and an opportunity: solutions must dismantle psychological barriers through a playful, visual and jargon-free approach that facilitates understanding. Spain therefore presents greater latent demand in the gamified education niche, whereas Sweden is better positioned for testing advanced or premium features once the core product is validated.

B.1.2 Level of financial literacy

The OECD/INFE 2023 survey places Spain's average financial literacy score at 56 out of 100, below the OECD average of 63. This highlights a significant opportunity for educational initiatives aimed at improving basic financial knowledge and behaviours among adults. Sweden, with a score of 68 out of 100, ranks above the OECD average, with adults demonstrating prudent financial behaviours and a solid understanding of key concepts. Consequently, while Sweden may be better suited to advanced financial tools, Spain's literacy gap aligns more directly with the objectives of an accessible, entry-level educational solution.

B.1.3 Digital behaviour and technology adoption

Both countries display high digital engagement, ensuring the viability of a mobile-first solution in either context. In 2023, Spain reported 94.9% internet penetration and 85.6% social media usage, while Sweden reached 97.2% and 84.6%, respectively. Mobile connections exceed total population in both cases, further reinforcing their readiness for digital applications of this nature.

B.1.4 Language preferences and localisation requirements

In Spain, Spanish is the predominant language and localisation is essential to ensure adoption. English-only content would considerably limit reach. In Sweden, high English proficiency allows for the use of English-language applications without major adoption barriers, although localisation into Swedish can further enhance trust and user engagement. This difference means that Spain demands immediate localisation, while Sweden offers greater flexibility in language rollout strategies.

B.1.5 Market size and potential for early validation

Spain, with a population of approximately 49 million and a GDP of \$1.58 trillion USD, offers a large and diverse user base for initial validation. In contrast, Sweden's population is about 10.65 million, with a GDP of \$593.27 billion USD. While the Swedish market is smaller in absolute terms, its high GDP per capita suggests strong purchasing power. From a validation perspective, however, Spain's larger population allows for a broader and faster collection of user feedback in the early stages.

B.1.6 Cost and effectiveness of user acquisition strategies

Digital advertising costs in Spain are relatively low, with an average CPC of €0.30 and moderate competition in the financial education app niche. In Sweden, the average CPC is around €0.50, reflecting higher market saturation and increased competition for audience attention. Spain therefore offers more favourable conditions for cost-effective user acquisition during the MVP stage.

B.1.7 Presence and nature of existing computers

The Spanish market includes established fintech applications, which target young users through savings automation, expense control and basic investment tools. The gamified financial education segment, however, remains underdeveloped. In Sweden, widely adopted tools dominate the fintech space, offering highly functional payment, budgeting and credit optimisation services. While neither market is saturated in the gamified education niche, Spain faces less pressure to match the high UX and feature sophistication expected by Swedish users.

B.1.8 Ease of market entry and regulatory environment

Spain has recently improved its fintech landscape through the 2023 Startup Law, which offers tax incentives, streamlines bureaucratic processes and enables experimentation within a regulatory sandbox supervised by the CNMV and the Bank of Spain. Sweden maintains a transparent but stringent compliance framework, with strong AML and data protection requirements. Although these standards ensure consumer trust, they can slow down market entry for new players. Spain's more flexible regulatory environment therefore reduces friction during the initial launch phase.

B.2 Synthesis and strategic choice

When considered together, the eight factors indicate that Spain is the most advantageous market for launching the application. The combination of a substantial financial literacy gap, lower acquisition costs and a supportive regulatory framework provides a favourable environment for early-stage testing. Spain also offers a large, digitally active population and less immediate pressure to deliver highly advanced functionalities from the outset, allowing the team to focus on refining the product's core value proposition.

Sweden remains an attractive secondary market for future scaling, particularly for validating advanced features, testing personalisation strategies or exploring premium monetisation models. However, for the purposes of this thesis and the early validation of the proposed solution, Spain represents the optimal initial testing ground.

Appendix C Survey results

Appendix C presents the detailed results of the survey conducted with 56 participants as part of the empirical research for this study. The tables summarise responses to each question, providing both the absolute number of participants and their relative share of the sample. This data offers a clear overview of the demographic profile, financial habits, perceptions and interests of the respondents.

Table C.1 Age distribution of participants

<i>Age range</i>	<i>Number of participants</i>	<i>% of sample</i>
25 to 35	33	58,9%
20 to 24	13	23,2%
Over 35	8	14,3%
Under 20	2	3,6%
Total	56	100%

Table C.2 Current employment status of participants

<i>Employment status</i>	<i>Number of participants</i>	<i>% of sample</i>
Full-time job	32	57,1%
Student	16	28,6%
Part-time job	4	7,15%
Looking for a job	4	7,15%
Total	56	100%

Table C.3 Highest level of education among participants

<i>Education level</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>Master's or postgraduate degree</i>	23	41,1%
<i>University degree (Bachelor's or equivalent)</i>	17	30,4%
<i>Secondary education</i>	6	10,7%
<i>PhD or Doctorate</i>	6	10,7%
<i>Vocational or technical training</i>	4	7,1%
<i>Total</i>	56	100%

Table C.4 Highest level of education among participants

<i>Country of residence</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>Spain</i>	25	44,7%
<i>Sweden</i>	18	32,1%
<i>Belgium</i>	4	7,1%
<i>France</i>	2	3,6%
<i>Other countries (1 participant each)</i>	7	12,5%
<i>Total</i>	56	100%

Table C.5 Emotions associated with participants' financial situation

<i>Emotion</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>Curiosity</i>	23	41,1%
<i>Calm</i>	23	41,1%
<i>Stress</i>	16	28,6%
<i>Insecurity</i>	16	28,6%
<i>Anxiety</i>	15	26,8%
<i>Confusion</i>	11	19,6%
<i>Indifference</i>	5	8,9%
<i>Disinterest</i>	3	5,4%

Note: Participants could select more than one emotion, so percentages do not sum to 100%.

Table C.6 Actions taken when uncertain about a financial decision

<i>Action</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>I ask someone close to me</i>	38	67,9%
<i>I search online or on social media</i>	30	53,6%
<i>I wait or postpone the decision</i>	18	32,1%
<i>I act without thinking too much</i>	8	14,3%
<i>I freeze and do nothing</i>	5	8,9%

Note: Participants could select more than one emotion, so percentages do not sum to 100%.

Table C.7 Aspects generating the most uncertainty in money management

<i>Aspect</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>Planning for the long term</i>	32	57,1%
<i>Understanding whether I should spend or save</i>	29	51,8%
<i>Knowing whether I'm saving enough</i>	25	44,6%
<i>Knowing whether I can spend on non-essential items</i>	14	25,0%
<i>Choosing the right tool or app</i>	9	16,1%
<i>Planning for after retirement</i>	1	1,8%
<i>Nothing else really</i>	1	1,8%

Note: Participants could select more than one emotion, so percentages do not sum to 100%.

Table C.8 Self-assessed knowledge of personal finance

<i>Knowledge level</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>1</i>	2	3,6%
<i>2</i>	16	28,6%
<i>3</i>	22	39,3%
<i>4</i>	13	23,2%
<i>5</i>	3	5,4%
<i>Total</i>	56	100%

Note: Scale from 1 = Very low to 5 = Very high.

Table C.9 Tracking of monthly expenses

<i>Tracking frequency</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>I sometimes track them</i>	23	41,1%
<i>I regularly track them</i>	22	39,3%
<i>I never track them</i>	11	19,6%
Total	56	100%

Table C.10 Use of apps or digital tools for personal finance management

<i>Response</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>No, never</i>	34	60,7%
<i>Yes, I use one currently</i>	12	21,4%
<i>Yes, but I no longer use it</i>	10	17,9%
Total	56	100%

Note: Tools focused on financial education or personal finance management. Banking apps or payment-only tools like Revolut, N26, Bizum, etc. do not count.

Table C.11 Interest in early access to the proposed financial education app (CTA)

<i>Response</i>	<i>Number of participants</i>	<i>% of sample</i>
<i>Yes, I'm interested</i>	30	53,6%
<i>I'm not sure</i>	14	25,0%
<i>No, thanks</i>	12	21,4%
Total	56	100%

Appendix D Interview framework

This appendix reproduces the exact scenarios shown to interview participants during the qualitative research stage. Each scenario was designed to simulate real-life personal finance situations and to observe both the unaided and aided responses of participants.

The structure followed during the interviews was:

1. Introduction – brief demographic and contextual questions to profile the participant.
2. Present the scenario to the participant.
3. Ask for an initial decision and reasoning.
4. Present Nilo's guidance or contextual message.
5. Ask whether the decision changed after receiving this input.
6. Closing and call to action – inviting participants to share any final reflections, suggestions or comments regarding the solution.

The scenarios are grouped according to the hypothesis they were designed to test.

D.1 Introduction

Before presenting the scenario-based vignettes, each interview began with a short demographic and contextual questionnaire aimed at profiling the participant. At this stage, participants were informed about the structure of the session, including its different parts and the sequence in which they would be addressed.

The interviewees were also reassured that any questions or clarifications they might need could be raised at any moment and that the interviewer would be available to assist them throughout the process. The average duration of the interviews ranged from 30 to 45 minutes, which allowed for a thorough yet fluid discussion, ensuring that the experience remained engaging and not burdensome for the person being interviewed.

The initial questionnaire included the following items:

What is your age?

- ☐ Under 20
- ☐ 20–24
- ☐ 25–29
- ☐ 30–35
- ☐ Over 35

What is your current employment status? *(multiple answers possible)*

- ☐ Full-time job
- ☐ Part-time job
- ☐ Student
- ☐ Self-employed

What is the highest level of education you have completed?

- ☐ Secondary education
- ☐ Vocational or technical training
- ☐ University degree (Bachelor's or equivalent)
- ☐ Master's or postgraduate degree
- ☐ Doctorate (PhD)

What is your current country of residence?

- ☐ [Dropdown list]

What is your gender?

- ☐ Woman
- ☐ Man
- ☐ Prefer not to say

Do you currently live alone, with a partner or with other people?

- ☐ Alone
- ☐ With a partner
- ☐ With roommates / friends
- ☐ With family

Do you share financial responsibilities with someone (e.g., partner or family)?

- ☐ Yes
- ☐ No

How confident do you feel managing your money? (*1 = Very little confidence; 5 = Total confidence*)

- 1 / 2 / 3 / 4 / 5

What is your approximate monthly income (after taxes)?

- Less than €1,000
- €1,000 – €1,499
- €1,500 – €1,999
- €2,000 – €2,499
- €2,500 or more
- Prefer not to say

Do you receive a stable monthly income?

- Yes
- No
- Other: _____

Do you keep track of your monthly expenses in any way?

- Yes, regularly
- Sometimes
- No, never

D.2 Hypothesis 1

D.2.1 A1 - Budget Allocation

Context:

You have just received your monthly salary of €1,000.

Prompt:

How would you divide it between expenses, savings and other uses?

D.2.2 A2 - Emergency Expense

Context:

Your car's clutch breaks unexpectedly, costing €1,000 to repair.

Prompt:

How would you handle this expense? Would you use savings, a loan or other methods?

D.2.3 A3 - Salary Increase

Context:

Your salary increases by €200/month starting next month.

Prompt:

What would you do with this extra money?

D.3 Hypothesis 2

D.3.1 B1 - Offer a financial product

Context:

You receive a €500 bonus at work. You don't need it urgently, but you're not sure what to do with it. You consider these options:

1. Save it in your regular bank account
2. Invest it in a fund suggested by your bank
3. Pay part of a loan that isn't urgent

Prompt:

What would you do with this money? (Options 1, 2 and 3 are just examples — feel free to propose any other option you can think of)

Extra-Prompt:

Did you feel confident when making that decision? Would you have appreciated guidance to help you decide with better criteria?

D.3.2 B2 – Complex investment product

Context:

You receive a notification from your bank app:

"Pre-approved personal loan of €1,500 at 1.5% monthly interest — just one click away."

Prompt:

How would you react to this message? Would you know if it's a good or bad option?

Extra-Prompt:

Did you find it easy to understand the terms? Would you have appreciated a simpler or more visual explanation to make a clearer decision?

D.3.3 B3 – High-yield savings account

Context:

You're offered to join a savings or investment plan through a new financial app.

You don't know anyone who uses it. You feel uncertain, but you're not sure who to ask for advice.

Prompt:

What would you do in this situation? Where would you look for help or references to decide?

Extra-Prompt:

Do you think it is easy nowadays to find clear explanations or recommendations for this kind of decision? Option: (i) Yes, it's usually easy, (ii) No, it's hard to find clear information

D.3.4 Trusted sources for financial decisions

Question shown to participant:

Who do you usually trust when you have to make a financial decision that you're not very familiar with?

(Check all the options you usually consult in these cases)

- ☐ Traditional bank
- ☐ A close friend
- ☐ A financial advisor
- ☐ Yourself (your own judgment)
- ☐ Personal finance blogs or YouTube channels
- ☐ Social media or forums
- ☐ Financial apps
- ☐ Family members with experience or who “understand money”
- ☐ Artificial Intelligence

D.4 Hypothesis 3

But today you're in luck! Meet Nilo, your companion who will be by your side to help you gain more clarity in whatever you need.

Let's dive into the situations!



Figure D.4 Nilo, app's personal assistant

D.4.1 C1 – Buying vs Renting

Context:

You're currently renting for €750/month. You're offered a similar place in the same area: you could rent it for €800/month or buy it for €150,000. The mortgage would have monthly payments of €900 over 25 years at a fixed interest rate of 3.5%.

Prompt:

What would you do? Would you rent or buy? And why?

Nilo's intervention:

“Over 5 years, buying would cost around €54,000 (including interest and usual costs), while renting would cost around €48,000.

Buying allows you to start building equity, but also requires more initial commitment.

Renting gives you more flexibility.

Which of the two options aligns better with your current life goals?”

Follow-up:

Has this message helped clarify your decision? Why?

D.4.2 C2 – Subscription Management

Context:

You currently pay for Netflix, Spotify, HBO, Amazon and a meditation app. In total, it costs you €48/month. You don't usually track how much you use them.

Prompt:

What would you do in this situation?

Nilo's intervention:

"Your current subscriptions total about €576 per year.

Based on your recent spending habits, this is equivalent to 10–15% of what you normally spend on food each year.

If you don't use all of them regularly, you might consider whether this is the best way to use that part of your budget."

Follow-up:

Does this way of explaining it help you make a decision?

D.4.3 C3 – Response to Market hype

Context:

A friend tells you he doubled his money in just two months by investing in a new cryptocurrency through an app.

You have some savings — around €2,000 — just sitting in your bank account. You're not sure what to do with it, but you feel like you're missing an opportunity.

Prompt:

With just this information, how do you think you would decide what to do with your money? Do you feel confident making a decision on your own?

Nilo's intervention:

“During the last decade (2014–2024), average inflation in Europe has been about 2.3% per year, with peaks reaching 10% in 2022. This means that if you leave your money sitting in a bank account, each year it loses part of its value — even if you don’t use it.

Historically, savings accounts have offered close to zero interest. Investing in diversified funds, like a global index fund, can yield 5–7% annually over the long term. Cryptocurrencies, on the other hand, can double in weeks... or lose 80% of their value in days.

Before making a decision, ask yourself this key question: how would you feel if that money dropped to half its value next week? Or if you needed it within the next three months? Understanding your tolerance for risk is more important than knowing how much you might earn.”

Follow-up:

Would you keep talking to Nilo to resolve this doubt and gain clearer criteria before acting?

D.5 Hypothesis 4

D.5.1 D1 - Willingness to pay for premium plan

Context:

Imagine you've been using the app for a few weeks for free. Thanks to Nilo's messages, you've avoided two impulse purchases and spotted a subscription you weren't using. In total, you estimate that you've saved about €40, without much effort.

From now on, to continue receiving personalized recommendations, financial simulations and full access to the assistant, the app offers you a plan for €2.99/month.

Prompt:

Would you pay to keep using it? Does the price seem fair to you?

D.5.2 D2 - Accepting ads in exchange for free access

Context:

You prefer not to pay the €2.99/month, but you don't want to stop using the app. Nilo offers you an alternative: you can still access most of the app's features for free, under some conditions.

Each time you interact with the assistant, short ads will appear. Also, some advanced features (like simulators or savings challenges) will only be available if you view sponsored content.

Prompt:

Would you accept this free version with ads? To what extent would the ads affect your experience or trust in the assistant?

D.5.3 D3 – Shared subscription plan

Context:

You have been using the app regularly and are happy with what it offers. Nilo now suggests a new plan: you can share the subscription with your partner, friend or family member.

For €3.99/month (just €1 more than before), both of you get full access, including joint features to compare habits, set shared challenges or define common savings goals.

Prompt:

Would this shared plan seem interesting to you? Who would you use it with and why? Do you think these types of features make it worth paying more?

D.6 Conclusion and Call-To-Action

The closing chapter served three purposes:

Contextual data – Noting whether the participant used a phone, tablet or computer, helping to understand how the device might have influenced responses.

Final reflection – Asking if scenarios influenced participants’ thinking about money, to capture spontaneous insights not covered earlier.

Optional follow-up (Call-To-Action) – Offering a 20–30 min 1:1 session to discuss financial decisions, reinforcing engagement while ensuring confidentiality and no pressure.

This structure provided a respectful ending, encouraged deeper post-interview dialogue and added context for interpreting results.