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***Managing Innovation in Project-Based Startups:
A Case Study of the SuperMarco Project***

***How do Innovation Management Practices Influence the Development and Adoption of
Digital Educational Projects in Project-Based Startups?***

SUPERVISOR

Prof. Vicentini Francesca

Management

CANDIDATE

Trincone Sara

306771

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ABSTRACT

For centuries, learning processes have developed mainly through traditional methods, relying on direct interactions between children and educators. However, the evolution and growing diffusion of technology has forever changed the education sector, introducing innovative solutions, such as digital platforms, to offer more personalized, flexible and accessible learning experiences. For this reason, startups operating in environments influenced by exponential evolution, such as the digital learning platform market, constantly face challenges related to innovation management, user adoption and the development of innovative digital products. Only by understanding market needs, to experiment new solutions and quickly adapt them to their business models, can these organizations become successful.

The main objective of this research is to analyze how project-based startups manage innovation, to develop and adopt digital solutions in the education sector. The first chapter of the thesis provides a theoretical background, focusing on models such as the Lean Startup Framework, Project-Based Organizations (PBOs) and the Technology Acceptance Model (TAM). This part serves as a tool to better understand how these organizations are structured and how they operate to ensure users adopt their innovations. The research continues by providing a general industry analysis, considering the digital learning platform market and the tools used by these organizations for behavioral learning. Finally, the SuperMarco project, developed by Live Connection S.r.l through the People platform and aimed at using digital educational content to promote healthy behaviors in children, serves as a case study for the research. This was analyzed through an interview with Mary Rose Castillo, Chief Operations Officer (COO) at Live Connection S.r.l., and the administration of a quantitative survey to potential platform users.

The results obtained, highlight the way the project's approach was adopted, considering elements such as experimentation, feedback collection and incremental improvements. The case study demonstrated how a collaborative and lean organizational structure can encourage the implementation of innovative processes, even when resources are limited. The data collected further confirms the importance of key determinants, such as perceived usefulness, perceived ease of use and user trust, for the adoption of digital educational platforms. In particular, the survey is conducted to study attitudes towards digital tools that support educators in promoting positive habits in children. Parents usually tend to have an overall positive view

of such tools, provided that they are intuitive, reliable and consistent with their educational objectives.

The study is particularly useful to understand how innovation management works in startups, as it enhances the importance of having a strategic vision that can be integrated with user needs for continuous learning, rather than solely relying on technological tools and skills. The findings suggest that building a collaborative ecosystem, composed of several individuals with distinct skills, adopting iterative processes based on experimentation and leveraging feedback by systematically collecting data, are all crucial elements in supporting the development and diffusion of innovative projects in the digital education environment.

INTRODUCTION

In recent years, digital transformation has drastically changed the way people, organizations and institutions produce, perceive and share knowledge. The spread of the internet, as well as the evolution of technology and the growing usage of innovative and interactive tools, have slowly reshaped learning processes, making education more engaging, personalized and accessible to everyone. As a result, more educational digital platforms have begun to appear, creating a true and proper highly innovative market. With time, studies have proven that the success of platforms in environments characterized by high uncertainty and rapid change, does not only depend on the availability of technologies, but on the manager's capacity to design solutions that can generate value, by effectively adapting these technologies to users' needs. Given their organizational flexibility, startups can rapidly experiment with new ideas, creating new products, services and business models, and becoming the key drivers of innovation. This is especially relevant for organizations operating in evolving markets, such as the digital educational one, as they must overcome a strong competitive pressure, while facing a situation of high uncertainty and low resource availability. Under these conditions, innovation management allows for startups to learn from feedback and adapt to users' expectations, making it a crucial element of success in the field of digital education platforms. In this environment, adopting an innovative technology, to enhance a learning experience through personalized multimedia content and interactive tools, is fundamental, but it is not the most important element: success comes from a platform's reliability, usefulness and ease of use, and from a project's consistency with its target audience's needs. Given these considerations, the objective of the thesis is to analyze the relationship between project development, user adoption and innovation in digital educational startups. A case study, combining behavioral and educational objectives with traditional elements of digital innovation, is introduced to provide a concrete example for the theoretical frameworks that will be discussed. The case study is the SuperMarco project, developed through the People platform by Live Connection S.r.l., an Italian startup aimed at promoting the acquisition of healthy habits in children, using storytelling, educational and interactive content. Specifically, the project provides an understanding on how startups can effectively manage innovation during all its development phases, in order to create value that can influence user acceptance. In this regard, the research aims at giving an answer to a specific question: *"How do Innovation Management Practices Influence the Development and Adoption of Digital Educational Projects in Project-Based Startups?"*. To address this issue from a managerial point of view, the study integrates distinct theoretical contributions from studies on project management, innovation and entrepreneurship and it assumes that an organization can

gain success if it is able to develop effective learning and adaptation processes to its business model.

The first theoretical framework analyzed in the research is Eric Ries' Lean Startup Model, which provides a vision of innovation, based on hypothesis validation, through continuous experimentation and market interaction. The model suggests replacing traditional and rigid business models with the iterative Build-Measure-Learn cyclical approach. Especially in highly uncertain sectors, this approach allows organizations to slowly adapt their products or services to concrete user needs, which is relevant for analyzing innovative projects that startups develop, even when resource availability is scarce and market risk is high.

Additionally, Project-Based Organizations, also known as PBOs, aim at simultaneously achieving several specific objectives, by structuring their activities around temporary projects. This model is particularly relevant in innovative contexts, as it promotes interdisciplinary collaboration, ability to respond to change and, most importantly, flexibility. In order to interpret the case study, it is crucial to understand the influence these organizational structures have on the development and adoption of digital initiatives.

Studies on digital technology adoption further contribute to analysis of the theoretical background. The Technology Acceptance Model (TAM), discussed in the thesis, argues that perceived usefulness and perceived ease of use are both key factors in understanding users' propensity to adopt an innovative technology. These aspects are particularly relevant in the digital educational platforms sector, as they demonstrate that a project's success depends on the capacity of the team to foster engagement among users, while generating trust and creating value.

Through the use of the theoretical frameworks discussed, the thesis develops a detailed analysis based on two main parts. On one hand, the development and adoption of the SuperMarco project is analyzed by looking at the implemented innovation practices, its organizational structure and all strategic and managerial decisions taken since the early stages of its lifetime. On the other hand, the empirical study is used to understand user perception towards digital platforms dedicated to developing healthy habits in children, as well as the key elements influencing their adoption. The research is based on the combination of two distinct perspectives. Firstly, an interview with Mary Rose Castillo, Chief Operation Officer (COO) at

Live Connection S.r.l., was conducted to provide insight into the strategic, organizational and managerial dynamics of the projects. Consequently, empirical data on attitudes, perceptions and intentions to adopt a digital tool, such as SuperMarco, was collected through the administration of a survey to potential users. These two tools allow for a comparison between users and organizational perspectives, offering a clear view on the analyzed phenomenon. The case study is also relevant to provide an overview on how entrepreneurs, startupper and organizations effectively operate in the educational innovation sectors. In a market characterized by continuous technological evolution and increasing competition, it is fundamental to understand how new ventures are able to develop digital projects that can generate value through user acceptance.

The thesis is structured to align with this analytical approach. The first chapter aims at providing a theoretical background, discussing models related to innovation, such as the Lean Startup Framework, Project-Based Organizations (PBOs) and the Technology Acceptance Model (TAM). These allow the reader to interpret the phenomenon studied from a conceptual perspective. The research continues with the second chapter, analyzing the digital learning platforms market, the characteristics of innovative educational initiatives and the key elements influencing user adoption. Finally, the case study on the SuperMarco project, serves as a tool to analyze the development process, value proposition and organizational structure of this kind of organization. The main findings from the research are then summarized in the conclusion, highlighting the importance of combining managerial implications with theoretical concepts and proposing possible future research directions. Therefore, the thesis's objective is to clarify how different elements, such as organizational flexibility, experimentation, attention to user needs and digital transformation, can co-exist in a new venture, to create value and effectively communicate educational content to children and parents, redefining the way individuals communicate, learn and interact to create and share knowledge.

CHAPTER 1: THEORETICAL FRAMEWORK

1.1 Startups in the Business Life Cycle

According to Costa (2026), a startup is “a business at the initial stages of its life cycle, characterized by an innovative stance, a potential for rapid growth, external funding, and vulnerability”. Startups are generally open organizations which, in order to distinguish themselves from already existing companies, must engage in innovation processes (Spender et al., 2017).

To understand the concept of “startup”, it is necessary to first have familiarity with the Business Life Cycle. As shown in Figure 1, before being able to define a startup, there must be resourcing and conception. An entrepreneur, or a group of entrepreneurs, must have an original and innovative idea to fully develop, while researching the market opportunities. At this stage, an organization is already a startup, which can formulate a business model and launch it in a small market. Subsequently, there is the growth stage, which occurs thanks to the sudden rise in consumer’s curiosity after hearing about the innovation. The more innovative a startup is, the higher its growth in this phase will be. The next stage is maturity; here, there’s a stronger market positioning and higher return on investments (ROI). Finally, an entrepreneur must plan for the future, thinking about how to retire or make a transition away from this venture. Depending on how well he/she does this, the business can have a rebirth, thanks to the creation of a new venture, or it can fail and exit the market (Jenn Woodhull-Smith, 2024).

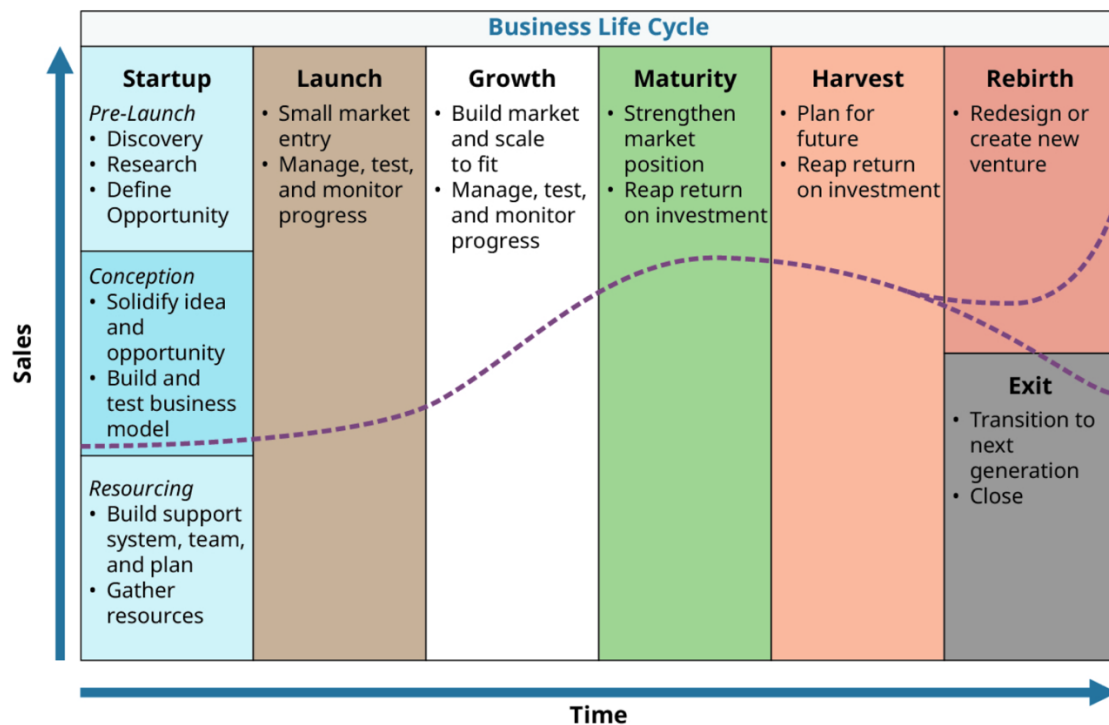


Figure 1: Business Life Cycle and Networking
(Jenn Woodhull-Smith 2024)

Figure 1 shows a more detailed version of the lifecycle of a business. In reality, as illustrated in Figure 2, the main phases are four: Introduction, which includes Startup Formulation and its Launch, Growth, Maturity and Decline. This research focuses on startups.

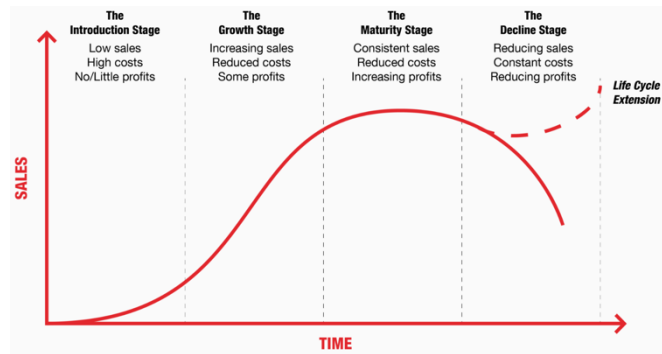


Figure 2: 4 Stages of a Business Life Cycle on the Way to Success
(Manraj Ubhi 2020)

According to Gomme et al. (2004), volatility can be applied to startups and the lifecycle of a business can be compared to the life cycle of a person. Young professionals tend to experience high volatility due to finite planning horizons and search frictions. Similarly, startups lack human capital and operate in a limited window, making them more sensitive to economic and market shifts than already matured and established companies. Because of this, startups have a higher rate of failure, as only one third of them turn into successful companies (Vesper, 1990). According to Salamzadeh and Kawamorita Kesim (2015), other reasons startups might fail are related to lack of finance or business knowledge, team management issues, but also the so-called Valley of Death (VoD). This is a transitional period before a new business reaches its breakeven point, in which total revenues are equal to total costs, but it is also a situation in which projects fail to achieve their goals (Al Natsheh et al., 2021). However, when startups survive, they most likely will turn into successful companies, or what are known as “success stories” (Salamzadeh and Kawamorita Kesim, 2015).

In the past few years, traditional firms have been struggling to ensure their long-term growth, due to the exponential rise in digitalization and innovation. As a consequence, also their overall competitiveness was negatively influenced, which resulted in firms being forced to speed up the identification process of new opportunities and the realization of their products and services, in order to gain competitive advantage by being the firsts in the market. Thus, already established firms often must rely on startups as a form of innovation (Springer, Michelis and Senges, 2018). Indeed, Lindemann, Venkataraman and Kim (2013) believed that innovation is fundamental for a company to gain long term success, since new ventures tend to create more innovation than traditional and already established firms.

1.2 Innovation Management in Startups

For centuries, companies have been adopting a traditional business model in order to maximize productivity and output. Traditional firms have well-defined roles and responsibilities, with managers taking decisions to then communicate them to their employees through formal channels and protocols, so that the hierarchy within the company is respected (DaxTan, 2023). As a matter of fact, when addressing “Business Management”, people often refer to it as a group of managers, employed and compensated by an enterprise, to direct a business for the benefit of owners and stockholders (Caples, 1965). In this view, employees have limited autonomy and empowerment and must execute the leader's directions. Most importantly, traditional management has very little space for innovation and creativity which is why, with time, companies started to evolve towards a more modern view of their management strategy (DaxTan, 2023). To do so, it is important for leaders to first understand that managing innovation doesn't only mean creating and developing an idea, by integrating the latest tools and techniques into a company's business strategy, but also commercializing it, by using it in an innovative way (Goffin and Mitchell, 2025). Moving beyond this misconception is a crucial step for managers to transition their business towards long-term and sustainable growth. Indeed, evidence shows that successful innovation doesn't only occur when a company has technological resources, but it also depends on the so-called “management innovation”, which, according to Volberda, Van Den Bosch and Heij (2013), is the practice of changing a firm's organizational form and processes so that they're new to the industry, which results in leveraging the firm's technological knowledge and its performance in terms of innovation, productivity and competitiveness.

Over the years, multiple frameworks have been established to implement a structured approach and standardize innovation practices. In 2017, the International Organization for Standardization (ISO) developed the ISO 50500 series, which was then replaced by the ISO 56000, consisting of 7 guidelines, useful to understand management innovation. These are:

1. Fundamentals and Vocabulary → ISO 56000:2020
2. Innovation Management System → ISO 56001 & 56002:2019
3. Innovative Partnerships (Tools and Methods) → ISO 56003:2019
4. Innovation Management Assessment → ISO 56004:2019
5. Intellectual Property Management (Tools and Methods) → ISO 56005:2020
6. Strategic Intelligence Management (Tools and methods) → ISO 56006
7. Operational or Executive Tools and Methods → ISO 56007 & ISO 56008

In the ISO outlines, particularly in guidelines 1 and 2, we find the Innovation Management Principles, which are essential to define the Innovation Management System (IMS) (Mendes, 2024). As a matter of fact, according to Babaeva and Grigorieva (2020), in economic systems' frameworks, there should be considered the features of the innovation process with its participants and the general principles of company management. As shown in Figure 3, the Innovation Management Principles are eight. Each of them is structured on 4 elements: the statement, which allows innovation managers to have a distinct purpose, the rational and the key benefits, which raise awareness and motivation in the interested parties, and finally the possible action plan to establish the foundations of a strong innovation management system (Gueorguiev, 2023).



Figure 3: Innovation Management Principles
(Zhou, J. 2025)

The following paragraphs provide a detailed analysis of the eight principles, emphasizing their contribution to a sturdy framework for organizational transformation.

Realization of Value

Value is realized through the process of identifying, deploying and adopting new solutions to satisfy interested parties' needs. The impact of these solutions is fundamental for the sustainability of the organization, therefore realizing further value (ISO, 2019). This notion draws the difference between innovation and invention, as value can be created, redistributed and destroyed for intermediaries, end-users and innovators, but not for inventors (De Casanove and Morel, 2018). Thanks to the creation of value, innovation leads to better economic, environmental and social performance organization of the business (Evans et al., 2017).

Exploiting Insights

The development of innovative solutions depends on the identification of insights that, if exploited correctly, can realize value in a business, leveraging on different sources of knowledge (ISO, 2019). According to Drucker (1981), businesses must constantly adapt themselves to changes in the external environment, by responding to disruptions that make it uncertain (Ansoff, 1975). This has had a negative impact on innovators who, in the past few years, have been struggling to make successful decisions for their businesses due to uncertainty in the market or a highly competitive ecosystem. However, through the exploitation of new research techniques for organizations and understanding of customer needs behaviors, managers may be able to accumulate knowledge quickly and make confident decisions (De Casanove and Morel, 2018).

Future-focused Leaders

Leaders must inspire employees and interested parties to be innovative, by pushing them to be curious and courageous and by making sure the business balances short-term performance with attention to innovation opportunities, in order to create future long-term value (ISO, 2019). These soft skills are highly emphasized in startup training groups, where innovation is the main pillar for success. Generally, profitable firms are managed by active, honest and resilient leaders who, thanks to their ability to develop ideas and capture new opportunities, can help the business grow towards a more future-focused organization (De Casanove and Morel, 2018). Indeed, according to Trifilova (2017), the main attributes for innovation leadership are trust, communication and ability to learn and change.

Strategic Direction

The purpose of direction in this context is to ensure that innovation efforts for organizations' visions align with the companies' overall objectives and business strategies. Strategic, or purposeful, direction prioritizes innovation activities, by evaluating the impact that their performance has on a company (ISO, 2019). By providing a purposeful direction, managers incentivize their employees to generate a shared view of the future of the business, ensuring alignment with organization's strategy, which is pivotal to achieve success. Moreover, strategic direction may assist leaders in developing transparent performance and evaluation criteria for innovation activities, project portfolios and for the company's management system, with the purpose of increasing its competitiveness in the market. Additionally, "monitoring the

contribution of operational innovation activities to the strategic direction, supports innovation in the return of investment of the partnerships” (De Casanove and Morel, 2018).

Systems approach

Innovation management is established on the so-called “system approach”, consisting of interrelated elements that, if managed efficiently, interact with each other to ensure the regular performance evaluation and constant system improvement of a firm. This interrelation of elements operates to fulfil the company’s main strategic objective, which is why it is crucial to understand the innovation performance of an organization (ISO, 2019).

Adaptable Structures

Innovation may require systematic changes in the structure, competences and processes used by a business. The ability to anticipate these changes and respond accordingly, by adapting or completely renewing the company, is a crucial capability for an organization to be considered innovative (ISO, 2019). As a matter of fact, innovation encourages companies to be more dynamic. This is something that already established firms often tend to fail at, which is why startups are the most innovative businesses (De Casanove and Morel, 2018).

Innovation Culture

Allowing cultures to establish a balance between creativity and effective execution is a crucial practice in innovation management. Through shared beliefs, values and behaviors, international cultures promote open-minded thinking and collaboration in companies, fundamental for organizational success (ISO, 2019). Innovation culture stimulates an entrepreneurial and administrative mindset especially in startup founders, who leave their comfort zone to inspire a more dynamic environment, driving continuous innovation in a company and ensuring its long-term competitiveness. To cultivate this culture, some businesses decide to establish “corporate incubators”, which serve as structures that provide established firms with new working dynamics and allow leaders of these organizations to navigate digital transformation more efficiently (De Casanove and Morel, 2018).

Managing Uncertainty

When an innovative startup enters a market or an established firm radically changes its structure due to an innovation, the business automatically faces some uncertainties and risks, which must be individuated, leveraged and managed confidently through a portfolio approach.

This combines experimentation and exploitation to create value and build resilience to manage uncertainties (ISO, 2019). Organizations have learnt how to manage risk, as they deal with it daily, but they may still struggle when facing uncertainty. The latter represents a risk for firms due to continuous evolution of customer desires from new technologies. According to De Casanove and Morel (2018), “managing this uncertainty, and turning it into risk which the company can deal with, is critical to a company’s future success.

Therefore, if leaders are able to apply all 8 Innovation Management Principles to their organization, they will most likely turn their business strategy into a successful one in the market in which they are competing, since, according Volberda, Van Den Bosch and Heij (2013), “innovation is the primary driving force of progress and prosperity”. This is applied especially to new firms; whether they spin-out from another business or startup, they require a well-defined set of competencies to enable innovation activity (Adams, Alexander and Öberg, 2014). If entrepreneurs implement these principles correctly, they can develop the dynamic capabilities necessary to create, deploy, and protect the intangible assets useful to support long-term success (Teece, 2007). Through the cultivation of this structured approach, new ventures can achieve ambidexterity, further increasing their chances of success and overall survival in a volatile environment (Raisch and Birkinshaw, 2008).

1.3 Eric Ries' Lean Startup Model

There are two main types of startups: Traditional Startups follow a plan-first approach, focusing on launching a product or service, only based on a previously conducted market research. On the other hand, Lean Startups follow an experiment-first approach, aiming at reducing costs and risks (Hurtado, 2025). This is also known as the "hypothesis-driven approach", since entrepreneurs formulate hypotheses to build their business model. Subsequently, they test them using Minimum Viable Products (MVP), a series of activities and features necessary to validate their concepts. Following testing, leaders may decide to carry on their business model, change some elements or abandon the startup and exit the market (Eisenmann, Ries and Dillard, 2012).

In his book *The Lean Startup: How Constant Innovation Creates Radically Successful Businesses*, Eric Ries, American entrepreneur and author, distinguished five principles on which the Lean Startup framework is based:

1. Entrepreneurs are everywhere, as long as they are a human institution with the ability of creating a product or service, even in uncertain market conditions.
2. Entrepreneurship is management. This is because startups are institutions just like established firms are, hence, they need a leader that manages the business.
3. Validated learning, which allows entrepreneurs to test their vision and build a sustainable business, by running frequent experiments.
4. Build-Measure-Learn. Startups' main objective is to turn an idea into something more concrete, by building a new business. Subsequently, a leader will measure customer's response and finally learn whether to persevere or pivot.
5. Innovation accounting, which highlights how to set up goals, prioritize work, but especially how to measure progress.

As shown in Figure 4, the Lean Startup Model is mainly known for its fourth principle, the "Build-Measure-Learn" feedback loop, which provides entrepreneurs with a set of practices useful for creating a successful business (Eisenmann, Ries and Dillard, 2012).

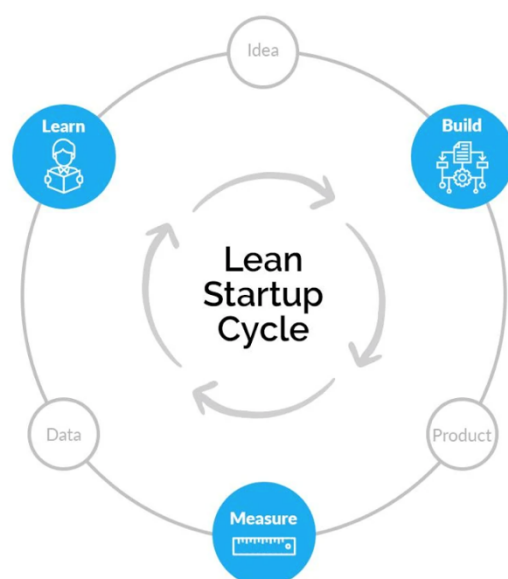


Figure 4: What Is a Lean Startup?
(Pereira, D. 2020)

According to this model, successful entrepreneurs develop their business following a cycle. They start with an idea and formulate a hypothesis. Consequently, they build a prototype, named the Minimum Viable Product (MVP), characterized by limited reliability and features, which serves as an intermediary between the entrepreneur and the customers, reducing information asymmetries (Blank and Eckhardt, 2023). At this stage, the hypotheses are tested through interviews and the data collected is assessed to help leaders make decisions. Entrepreneurs can pivot the business model, which can result in the exiting from the market or survival of their startup (Golovin, 2025).

The main issue with the traditional, or plan-first, approach is that it directs leaders to risk a higher-than-average amount of capital at the early stages of the company's business strategy, jeopardizing, in most cases, its long-term success. This is because the traditional approach assumes that to better evaluate the strength of an entrepreneur's idea, leaders are required to first establish their company and, only after, test their main hypotheses, to determine if the company is most likely to fail or work (Blank and Eckhardt, 2023). On the other hand, according to Blank and Dorf (2012), the Lean Startup Framework focuses on minimizing as much as possible the building of the organization, until the central business model's questions are resolved. This model, which aims at preventing failures, can work in any size company, by ensuring that "those who long to build the next big thing will have the tools we need to change the world" (Niculescu, Jinaru and Cojocaru, 2010). However, since systematic learning is fundamental to understand the Lean Startup Model, it will most likely affect entrepreneur's performances. Well-designed startups will generate reliable directions, whereas poorly designed ones will produce misleading information. However, in order to be successful, it is crucial that entrepreneurs find a balance between quality of research and speed in implementing the model (Blank and Eckhardt, 2023). The Lean Startup Framework is a continuous process, established to develop an innovative product or service, which is able to emphasize the entrepreneur's visions and ambitions, customers' needs and fast iteration. Thanks to the Build-Measure-Learn feedback loop and the use of innovation accounting, a new venture can estimate the degree of progress towards the perfect market fit, evaluating how close the business is to success (Niculescu, Jinaru and Cojocaru, 2010).

Therefore, the Lean Startup provides researchers and entrepreneurs with a structured framework revealing how ideas and hypotheses can become opportunities, once they are tested and finally turned into sustainable businesses (Golovin, 2025).

1.4 Startups as Project-Based Organizations (PBOs)

According to Constantinescu and Nistorescu (2008), organizations can distinguish themselves depending on their structure. There are four main types:

1. Hierarchical Structure, which offers a clear chain of command, with distinct roles in the business. This “top-down” layout can, however, reduce agility since decision making requires approval from multiple layers.
2. Functional Structure, which groups together employees with specific skills, allowing them to ensure specialized efficiency. The main disadvantage of this structure is the higher number of disagreements among the different functional departments.
3. Hierarchical-functional Structure. As shown in Figure 5, this combines the hierarchical structure with the functional one, trying to minimize the disadvantages of both structures.
4. Matrix Structure. This is mainly used in project-based organizations, which are going to be analyzed in the next chapters.

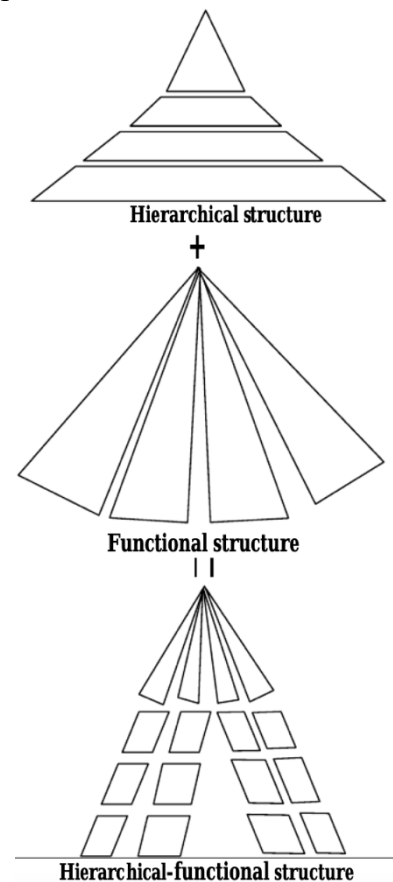


Figure 5: Project-Based Organization - an Integrated Approach
(Bocean, C.G. 2011)

Traditional businesses usually follow a team-based structure, meaning multiple teams within a venture, work on two or more projects at the same time. While this approach allows for a higher level of specialized workforce, since more employees contribute to the same initiative, it can often result in diluted focus. The lack of dedicated resources can become a huge limitation for the overall success of a business when its teams are forced to focus on various projects simultaneously. Because of this, a continuous increase of project-based organizing, or “projectification”, can be observed in functional areas, such as R&D, and in creative industries (Auschra et al., 2019). Project-based organizations are a form of business that involve the creation of temporary systems to produce project tasks. They efficiently organize knowledge resources and allow companies to launch low-cost experiments that may terminate, if unsuccessful, without a high loss of capital or investments (Sydow, Lindkvist and DeFillippi, 2004). An illustration of the distinction between project and team-based ventures is provided in Figure 6.

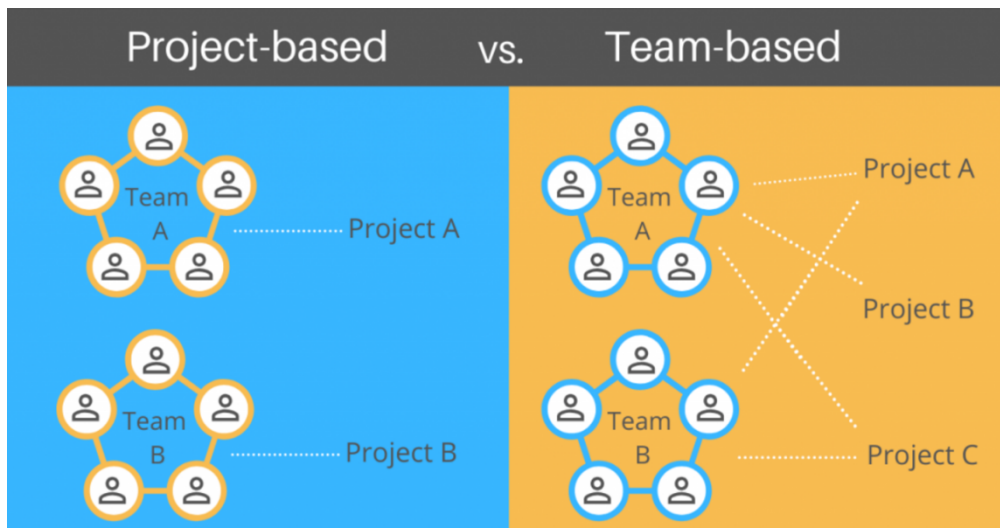


Figure 6: Software Development Organizational Structure: Team-based Vs Project-based
(Griffin, J. 2019)

In order for organizations to succeed through projects, the matrix structure, like the one provided in Figure 7, was established. This matrix “implies the existence of cross-functional teams for each project consisting of participants from different departments of the organization who cooperate to achieve a goal” (Bocean, 2011). The vertical lines are the “top-down” layout of the hierarchical structure, in which the General Manager directs the Production, Finance, Marketing, Development and Sales Managers who, in turn, lead their respective teams in each initiative. On the other hand, the horizontal lines represent project-oriented flow, in which the respective Project Managers supervise the execution of each project. All together they generate a network system known as the Project-Based Matrix Structure, in which the General Manager leads (Elezaj, Morina and Kuqi, 2020).

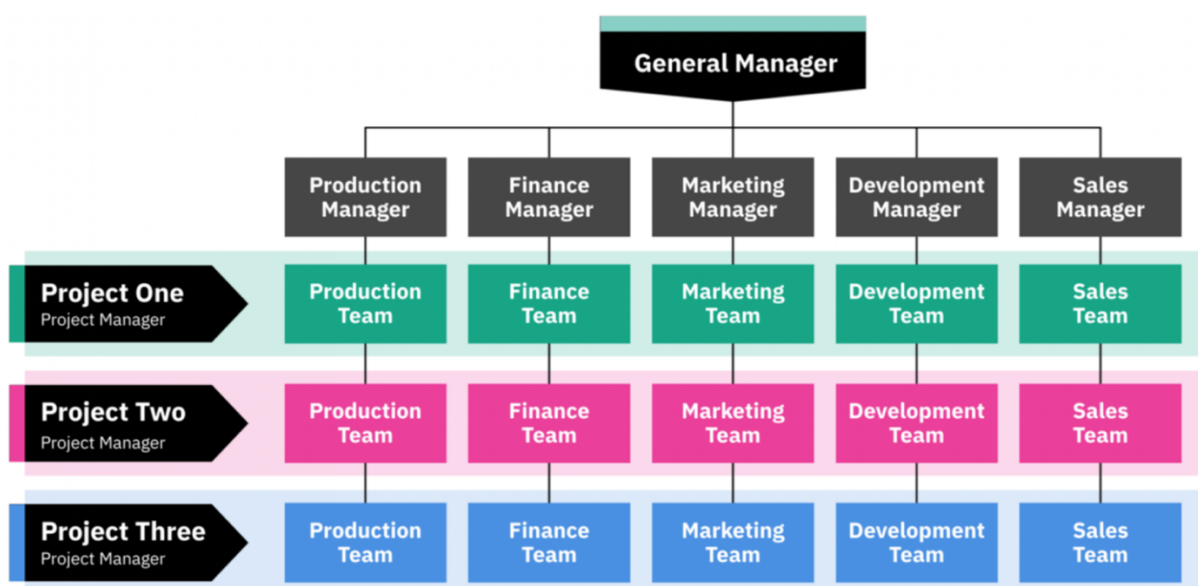


Figure 7: What Is Organizational Structure?
(Wong, V. 2024)

The purpose of this hybrid model is to find a balance between traditional stability and project-specific flexibility, which can only be done by attentively coordinating project managers with the ones from other departments, to ensure efficiency in the business. According to Elezaj, Morina and Kuqi (2020), like any other model, this structure has some advantages and disadvantages. The main benefit is a higher focus on the project, which can exploit the technologies and workforce's skills of all departments. Moreover, it allows for quicker and more flexible responses to specific customers' requests, improving the balance of resources to achieve the main goals. On the other hand, the main limitation is the shared power between the functional and project manager, which forces them to depend on one another. This can create a situation of conflict for the acquisition control, which could eventually break the balance and fail the project. Additionally, this structure violates the Unity of Command Rule, written by Fayol (1949), according to which "an employee should receive orders from one supervisor only". When a worker is forced to follow directions from two different managers, it can lead to role ambiguity, which results in a stressful and unsustainable work environment. Thus, the matrix structure can positively or negatively impact the firm's leadership but, by being able to balance the powers among all managers, leaders can aim at achieving company success and project management efficiency (Elezaj, Morina and Kuqi, 2020). The latter is generally understood by all organizations today, but only the ones that can successfully implement the matrix structure will triumph in the market. Indeed, Project-Based Organizations are considered the most dynamic and innovative organizations, encouraging most startups to follow this structure, especially when wanting to implement a new technology in their firm (Bocean, 2011). This is because the tech sector tends to have a higher level of uncertainties, so by adopting a project-based structure, organizations shift their strategy, allowing projects to become the main engine for competitive survival and organizational design (Miterev, Mancini and Turner, 2017; Indria Handoko and Tjaturpriono, 2023).

The increase of digital startups as Project-Based Organization in the market, constitutes a crucial shift in organizational theory from the traditional hierarchical structure to a more fluid and project-based composition. According to Miterev, Mancini and Turner (2017), projects are the main tool for both organizational selection and value creation, which is why PBOs have become a necessity for digital new ventures. Indria Handoko and Tjaturpriono (2023) argue that, as digital startups develop, entrepreneurs must go through a single project organizational design at first, in order to enter more easily in the market. Only after, they can diversify their portfolio into one with multiple interconnected activities. This evolutionary process aligns with

the concept of “Project-Based Entrepreneurial Learning” (PBEL), drafted by Santoso et al. (2023). According to him, at the early stages of their life cycle, startups function as experimental and educational projects, whose value creation’s central device is called "learning by doing". PBOs allow startups to formulate hypotheses and test them. By gathering results, they can decide if they want to carry on the project or not, by learning how customer groups might react to new innovations. This aligns with what Auschra et al. (2019) described as the rigidities of traditional organizational forms. She believed that startups seize innovative opportunities through the use of digital projects and by maintaining the necessary boundaries, with partners and early adopters, to accelerate the innovation cycle. However, to achieve long-term success, PBOs require a pristine intersection between quality management and project management systems (Orwig and Brennan, 2000). This is a concept highly connected to the ISO 56000 principles, which aim at ensuring that the project itself doesn't interfere with the Lean Startups’ “Build-Measure-Learn” structure. Moreover, the success of digital projects is often a consequence of the firm’s ability to manage specific team member’s competences, which are at the base of the startup’s competitive advantage (Guerrero et. al, 2017). Project-Based Organizations allow managers to create a matrix-like environment, by allocating specific resources to their innovation sector, providing dynamic capabilities that act as a bridge to navigate the Build-Measure-Learn cycle and eventually lead to permanent success.

1.5 Technology Acceptance Model (TAM)

The world we live in is currently undergoing rapid digital innovation, forcing firms to adopt new technologies in their business, which require a thorough information system research and managerial excellence. Understanding what influences customer groups to either accept or reject an innovation is crucial for companies that introduce new digital tools and solutions in their business strategy. To address this issue, in 1989 Fred Davis proposed the Technology Acceptance Model (TAM), which, to this day, remains one of the most used by new and established ventures. TAM was initially developed to understand user acceptance through some key cognitive factors that influence behavioral intention for system use. According to Fishbein and Ajzed (1975), this model is at the base of the “Theory of Reasoned Action”, which proposes that the use of a new platform or innovation depends on the behavioral intentions of the users, which are shaped by culture, beliefs and attitude. On this foundation, as shown in Figure 8, the TAM suggests that the adoption process focuses mainly on two factors: Perceived Usefulness and Perceived Ease of Use (Davis, 1989).

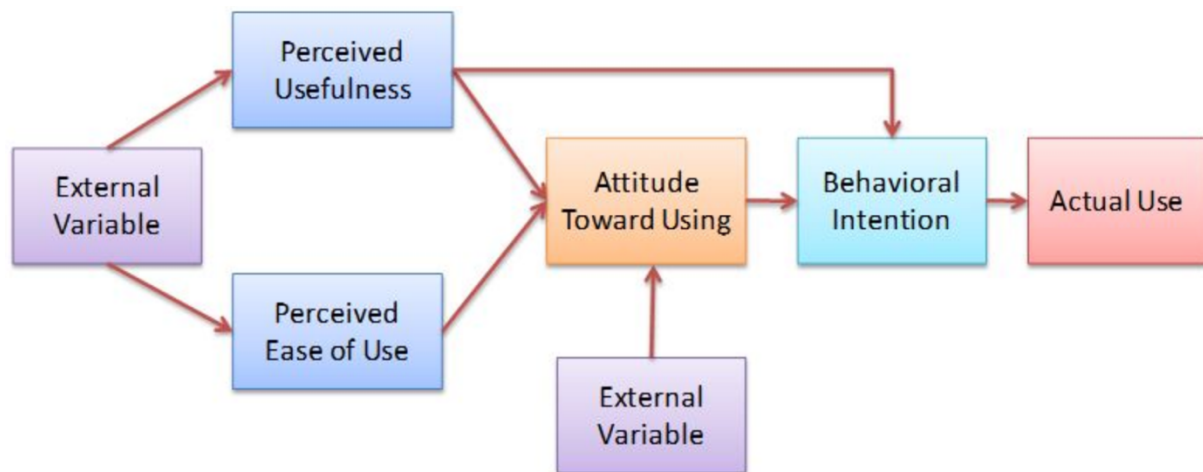


*Figure 8: Exploring Technology Acceptance for Mobile Services
(Phan, K. and Daim, T. 2011)*

Perceived Usefulness

Perceived usefulness is the degree to which an individual decides to use a specific system or technology depending on whether this will enhance their performance or outcomes. This factor indicates the value that users associate to a new technology, which is the main driver of adoption decision. Perceived usefulness of digital platforms is the extent to which a system may or may not facilitate learning, improve efficiency, or help individuals achieve their goals (Davis, 1989). Evidence-based studies have proven that perceived usefulness is the central

driver of behavioral intention, since users are more likely to adopt technologies, they believe to be relevant and beneficial with respect to their specific needs (Venkatesh and Davis, 2000).

Perceived Ease of Use

On the other hand, perceived ease of use is the degree to which an individual decides to use a new system, depending on whether it will be free of effort or hard to utilize. This factor emphasizes accessibility, usability and clarity, representing how complex technology can be from the user's perspective. When technologies are easy to use, the likelihood of them being adopted, especially from users with limited technical expertise, increases, as cognitive effort decreases (Davis, 1989; Venkatesh and Davis, 2000).

As it can also be seen in Figure 8, the interaction between these two elements, may positively or negatively influence attitude towards using, behavioral intention and actual use.

Attitude Towards Using

Perceived usefulness and perceived ease of use are crucial in defying individuals' attitudes towards technological innovation. Users evaluate systems depending on how they perceive them; the more useful and easier to use they are, the more positive the attitude towards using them is, which results in managers being more favorable to adopting them (Davis, 1989).

Behavioral Intention

The two main key factors of the TAM, also influence behavioral intention to use, which represents the likelihood of an individual to engage with the technology in the immediate future. Although external constraints, such as access or resources, may influence this relationship, according to Venkatesh and Davis (2000), a compelling positive intention often leads to system adoption. Usually, behavioral intention is used by leaders to predict real-world adoption, especially when analyzing emerging innovations.

Actual Use

The outcome is the actual use, which represents the effective operation of the system by individuals. Even though the TAM assume a strict relationship between intention and behavior, it has been proven that additional variables, such as prior experience or social influence, must enter in practice to moderate the model, which is why, with time, extensions such as the TAM2 or TAM3 have been developed (Venkatesh and Davis, 2000). Indeed, these include a wider set

of determinants, in order to better interpret user behavior in complex environments (Venkatesh and Bala, 2008).

The Technology Acceptance Model has been validated across e-learning systems, digital platforms and mobile applications, as it provides a strong explanation to technology adoption, making it an exceptional tool for analyzing digital innovation in new ventures (King and He, 2006). As a matter of fact, the TAM provides a framework that allows researchers to evaluate the two key factors previously mentioned, with the purpose of understanding how users examine and adopt new technologies. These factors are also relevant when targeting non-expert users, such as children and parents, who may be less trustful. Despite its positive impact, the TAM has been criticized by scholars, who believe that the model ignores cultural, social and emotional dimensions that may influence users (Bagozzi, 2007). It mainly focuses on cognitive evaluation, without considering that there may exist external barriers that have a negative impact of behavioral intention.

Therefore, despite its limitations, by focusing on perceived use and perceived ease of use, the Technology Acceptance Model provides a strategic framework for understanding the main determinants of technology adoption in businesses and digital platforms, highlighting the importance of functional value and usability as tools to shape customers' behaviors.

1.6 Conceptual Framework of the Study

The theoretical framework provided in this chapter represents a clear and strategic foundation to understand how innovation must be developed and managed by leaders in the early stages of a new venture, in order to obtain long-term success. The first step was identifying where startups are placed in the business life cycle, focusing also on their characteristic of potential rapid growth and uncertainty, in order to highlight the importance of innovation as the main driver of survival and success. The analysis continued by exploring the shift from the traditional hierarchical approach towards a more dynamic and flexible model. Through the ISO 56000 innovation management principles, it was demonstrated how businesses strategically and systematically structure their innovation processes, in order to combine external opportunities with internal capabilities. Building on this, Eric Ries' Lean Startup Model was included by introducing a practical approach to innovation, called the Build-Measure-Learn cycle. Through this feedback loop, it was discussed how startups draft their hypotheses, to then test them, gather results and adapt their strategies in highly uncertain external environments. This model contributed to the analysis of the theoretical framework by highlighting the importance of decision-making, experimentation and continuous learning for the development of innovative products and services. Moreover, a strategic view on how innovation is operationalized, was provided to the reader through an analysis of startups as Project-Based Organizations (PBOs). Indeed, startups are most likely to gain long-term success, by improving resource allocation and collaboration across distinct functional areas, as well as by enhancing flexibility. This can be done by structuring a business around multiple projects, to reinforce dynamicity of innovation in new ventures and implement iterative processes, such as the Lean Startup approach. Finally, the Technology Acceptance Model was presented to provide a user-centered perspective, by focusing on perceived usefulness and perceived ease of use, which are the two main factors that influence the adoption of innovative technologies. This model underlines the importance of merging user needs and expectations with technology, essential to provide solutions for customer groups and successfully implement digital innovation.

Overall, this chapter allows the reader to understand how startups combine organizational, strategic and user-oriented dimensions to integrate innovation in their business. This will provide the necessary tools to examine how innovative digital platforms are developed, managed and adopted in the real world to provide customers with solutions to their needs.

CHAPTER 2: GENERAL CONTEXT & INDUSTRY ANALYSIS

2.1 Digital Learning Platforms Market

Digital learning platforms are systems designed, thanks to the use of technology, to deliver educational content that could help students, parents, teachers and people who seek personal development, to learn and grow. Digital channels, such as virtual meetings, classrooms and mobile applications are all communication tools used in these platforms to support a stronger learning experience (Liu and Wang, 2009). Additionally, Learning Management Systems (LMS) are at the core of this structure, which helps organizations to efficiently manage education by tracking user progress (Moore and Kearsley, 2007). With the rapid growth of technology throughout the years, especially during the COVID-19 global pandemic, more digital platforms started to emerge, leading to the creation of a real and proper market, also known as the EdTech or e-learning market. As shown in Figure 9, this market's size in 2026 is nearly three times its 2020 level and it is expected to continue growing in the coming years.

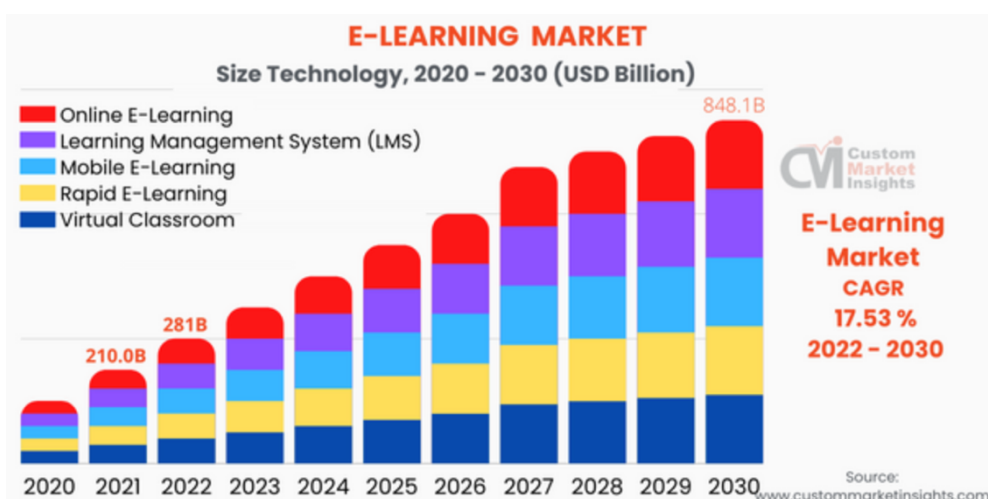


Figure 9: Global E-Learning Market Size/Share
(MARKET, C. 2022)

According to Al-Fraihat et al. (2020), the widespread use of digital devices and access to the Internet has exponentially increased the creation of online platforms, especially in the learning sector. The worldwide diffusion of high-speed internet, during a time in which everyone was forced to stay home for their own safety, helped individuals build and grow their confidence in using digital tools and devices, such as smartphones, laptops and tablets. The world was facing an emergency, so humans had to adapt in order to continue living their lives in the easiest way possible. This meant finding a solution for all those jobs and activities that required being physically present. The educational sector faced the biggest challenge, since children could not go to school anymore, leading to a shift from the traditional system to a

digitalized one. Indeed, already established educational organizations and institutions had to quickly transition to remote learning ecosystems which, in turn, led to a boost in online platforms usage, created to provide educational content anywhere at any time, removing geographical learning barriers. Eventually, also people coming from a diverse socio-economic background had the opportunity to access learning content that was previously unavailable for them, as long as they had one digital device. This transition was the first step to a long-term integration of digital learning tools into education systems. Indeed, according to Dhawan (2020), the pandemic was a fundamental trigger for digital transformation in education, growing people's trust into e-learning platforms. Although this sudden shift towards online learning revealed also some limitations, Hodges et al. (2020) believed that it is now crucial for organizations to strategically invest in digital infrastructure for pedagogical design, in order for them to become more successful in the market. For this reason, digital learning platforms are now considered an essential element of contemporary educational strategies, rather than a temporary alternative. Moreover, the adoption of cloud service technologies, strengthened the efficiency and scalability of digital platforms, enabling all organizations to deliver real-time content while managing considerable volumes of data and reducing infrastructure and service costs. This expansion was so significant especially because it enabled individuals to understand how resilient online education systems really are (Bond et al., 2020). Although the change in consumers' needs were a key driver, it was the technological advancements that allowed such a market to be born and to grow so fast. Today, this is one of the sectors in the digital economy that is growing the fastest, making it extremely dynamic and globally used (Basak, Wotto and Bélanger, 2018). From a managerial point of view, digital platforms are a strategic tool, used by organizations to provide consumers with flexible, but analytical learning solutions. As emphasized by Singh (2021), "the integration of digital technologies into education has transformed the creation, distribution and consumption of knowledge, making e-learning a central component of modern education systems". Indeed, knowledge is no longer perceived as a static asset in a traditional environment, but more as a dynamic resource in a digital ecosystem. The exponential growth of the e-learning market demonstrates how crucial it is to leverage technology in order to identify a scalable business, especially in such a competitive sector. Additionally, digital learning platforms became a fundamental strategic tool in modern organizations, enhancing cost effectiveness, since they allow knowledge to be spread more efficiently, and accessibility, since they are open to everyone and easy to use (Means et al, 2014).

Digital learning platforms continue to grow thanks to the contribution of technological development in the market. There are several innovative factors that allowed this diffusion in the past, which will keep expanding in the coming years, the main one being the integration of Artificial Intelligence (AI) in people's daily lives. AI is able to analyze user behavior and accordingly adapt it to different contexts, in order to provide individuals personalized learning experiences. They can identify knowledge gaps and integrate them with new recommended learning paths, so that users can receive real-time feedback which enhances their engagement and improves overall learning outcomes (Zawacki-Richter et al., 2019). Moreover, data analytics are tools useful to organizations to interpret data, allowing them to make decisions depending on user engagement. Thanks to these, companies are able to improve platform effectiveness, creating productive strategies through the monitoring of user performance, making this tool a key driver to success. Indeed, learning analytics provide insights into learner performance and behavior, enhancing decision making in the digital education market (Ifenthaler and Yau, 2020). The rise of interactive learning and "gamification", especially among younger audiences, further contributes to the expansion of the digital learning platforms market, by focusing on behavioral development. In order to motivate the latest generations to approach a new learning environment, organizations have implemented elements, such as challenges and rewards, to transform their platforms into an engaging technological tool for education. By doing so, learning becomes a fun experience for individuals of all age ranges, from young children to university students, to adults and old people. According to Deterding et al. (2011), this "gamification" improves platform retention and user engagement, especially when organizations aim at providing a learning experience through repetitive activities, reinforcing habit formation. Furthermore, the increased usage of mobile digital devices has extended accessibility to a higher volume of customers, making digital education more effective. This type of education resource, focused on a greater access to technology through tablets, smartphones and laptops, is called "mobile learning". By using these devices, customers are also able to learn through the so-called "microlearning", which is an approach focused on creating and uploading short videos on the Internet, with the purpose of teaching specific contents in an easy way. This aligns with the cognitive learning theories, as it provides information in small and manageable units, helping users to retain knowledge more effectively (Hug, 2005). This methodology is especially applicable in environments in which customers have a lower attention span and less time, making it extremely relevant to modern digital platforms operating in increasingly fast-paced contexts. Finally, the integration of new technologies, such as Augmented Reality (AR) or Virtual Reality (VR), into digital learning

platforms, creates innovative and immersive learning experiences by simulating real world scenarios through 3D technological models, useful for practical training. VR and AR are still at the early stages of their adoption; however, they are expected to improve knowledge retention by increasing user engagement, considerably strengthening the effectiveness of digital learning platforms.

Although technological innovation can be considered one of the key drivers of the digital learning market expansion, an increase in demand for a more flexible and personalized learning experience remains the primary factor behind this development. Individuals look for digital platforms that can enable them to engage and learn at their own pace, allowing them to receive an educational experience tailored to their needs and preferences. This is because personalization in digital learning environments helps strengthen user engagement, underlining the importance of adaptive learning systems in improving customers' outcomes (Kizilcec et al., 2017). This flexibility becomes crucial especially in environments in which, in order to boost their professional development, people must continuously revise and upgrade their skills following the changes in market demand. An example of this kind of environment is indeed the educational one. Organizations in this industry try to enhance skills through employee training, making their business more scalable and cost effective, which in turn, allows for it to be applied to multiple distinct contexts (Bond et. al, 2020). As a consequence, today the corporate segment is considered one of the main factors of overall market growth.

Despite all the advantages that contributed to the expansion of the digital learning platform market, some limitations and challenges must be mentioned, as they could affect the long-term success of this fast-growing industry. The first disadvantage is the digital divide, creating barriers to accessibility and inclusivity. Not everyone has equal access to digital devices, making it harder for individuals in poorer geographic areas and socio-economic groups to implement online learning in their lives and daily habits. According to Al-Fraihet et al. (2020), another concern relates to design and content quality which, if too poor, may fail to effectively distribute knowledge and learning outcomes, leading to lower user retention rates. This is because the effectiveness of a tool, in this case digital platforms, often mainly depends on the content delivery and the quality of pedagogical design, rather than solely relying on the technology itself (Selwyn, 2016). Two other important challenges to consider are data privacy and security, since organizations must make sure to apply data protection measures to maintain user trust, especially for platforms targeting families and children. This is because digital

platforms collect and process great amounts of user data, so it is crucial for managers to respect all ethical considerations, while ensuring compliance with regulatory frameworks.

In conclusion, it can be said that the creation and expansion of the digital learning platform market demonstrates how important decision-making is for managers in this environment, especially in technology adoption, innovation management and user engagement contexts. Thanks to technological developments, this market evolution has made learning more accessible, personalized and flexible, transforming forever the processes of creating, delivering and consuming education and knowledge. Understanding the way market trends continuously innovate and adapt in response to changing user expectations is key to contextualizing the development of digital learning solutions and to analyze specific organizations in this fast-evolving sector.

2.2 Digital Tools for Behavioral Learning

The expansion of the learning ecosystem can be explained through the progression of technological tools, which have permanently altered the way knowledge is delivered globally. Over the last few years, more digital tools have started to emerge, reinforcing behavioral learning. This theory focuses on developing routines, habits and behavioral changes, rather than solely emphasizing the relevance of knowledge acquisition. According to Skinner (1953), behavioral learning allows individuals to acquire or modify habits through repeated practice, reinforcement mechanisms and other external factors. Managers use this as a strategic tool to create value by intersecting education, technology and psychology with sustainability, in order to assess consumer behavior. Behavioral learning aims at emphasizing measurable outcomes and observable actions, rather than only focusing on cognitive understanding, which is at the base of any traditional educational approach. This theory is put in practice especially in digital environments implementing feedback loops, structured interactions and reinforcement systems into a platform. As a consequence, more and more digital tools are designed with the purpose of increasing productivity by improving daily routines through the adoption of healthy habits, guiding users towards particular behavioral goals.

The most important theoretical concept digital behavioral tools are designed on is the so-called “behaviorism”, according to which behavior is shaped by repetition and reinforcement, through features like feedback systems, progress tracking, rewards and reminders. (Watson, 1913; Skinner, 1953). Being mostly effective when integrated into a user-friendly digital environment, these tools facilitate a continuous interaction between a user and a platform, making the latter more accessible to everyone. Additionally, valuable data is collected by tracking user behavior, which is then used to upgrade organization’s services and improve their engagement with customers. Habit formation further enhances the development of these tools since, thanks to digital platforms, users are able to more easily integrate new behaviors into their daily lives. As highlighted by Lally et al. (2010), habits are actions characterized by the repetition of behaviors in consistent contexts, making them automatic responses. A crucial element for user retention and long-term engagement is habit formation, which can be improved thanks to the use of structured routines and prompts, such as daily notifications, progress visualization and goal setting features. Similarly, as already mentioned in 2.1, gamification has become one of the most adopted strategies by organizations, as it increases engagement and motivation, especially in digital learning contexts. This was defined, by Deterding et al. (2011), as the use of game design elements in non-game environments. Users are encouraged to continuously interact with

platforms through the use of elements that can make their experience more enjoyable. Among these, there are badges, points, leaderboards and rewards, which create in individuals a sense of progression and achievement and they are essential to understand gamification frameworks. An example is the Octalysis Framework developed by Yu-Kai Chou in 2003. As shown in Figure 10, the framework distinguishes eight drivers of human motivation:

1. Epic meaning and calling
2. Development and accomplishment
3. Empowerment of creativity and feedback
4. Ownership and possession
5. Social influence and relatedness
6. Scarcity and impatience
7. Unpredictability and curiosity
8. Loss and avoidance

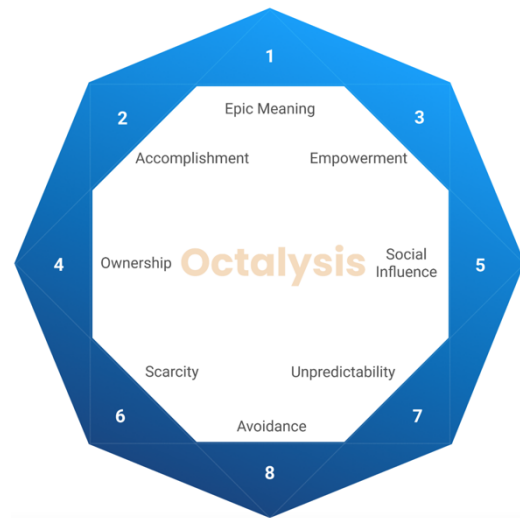


*Figure 10: The Octalysis Framework for Gamification & Behavioral Design
(Chou, Y.K. 2025)*

All the above drivers serve as a theoretical foundation to understand user behavior in games-based platforms, in order for managers to strategically alter their organizations to create more engaging and behavioral-oriented digital experiences. Indeed, according to Hamari, Kivisto and Sarsa (2014), gamification has the power to enhance behavioral outcomes through user engagement analysis, especially in educational environments in which individuals aim at improving their knowledge. Related to gamification, “nudging” serves as a strategic tool to build a successful platform, providing an understanding of user behavior. This is another behavioral concept, but this time it’s based on economic theories. According to Thaler and Sunstein (2008), “nudges are subtle design interventions guiding users towards desired behaviors, without restricting their choices”. In digital environments, this concept translates into visual cues, reminders and default options that aim at encouraging users to take certain actions. Some examples are platforms providing reminders to complete tasks or spotlighting recommended activities by using bolder or bigger font character and size. Nudging is extremely valuable for managers, as it allows them to achieve desired outcomes while enhancing user experience by influencing behavior in a non-intrusive way. Moreover, the personalization of digital tools is crucial to understand user behavior and to tailor interactions and contents based on individuals’ preferences (Kulik and Fletcher, 2016). This factor ensures behavioral

interventions to be more effective, through the use of recommendations that are specific to a certain context and relevant to the environment. By customizing their platforms, organizations are able to improve user satisfaction and enhance the likelihood of a continued and habitual customer usage. An example of customization is platforms gathering information on past activities and offering new routines, or learning systems adapting the difficulty of content depending on how well a user is performing. Furthermore, the proper operation of data analytics is fundamental for the efficient functioning of digital tools for behavioral learning. As also already mentioned in 2.1, platforms control huge amounts of data, which must be protected to ensure the maintenance of user trust. These allow managers to make highly strategic decisions depending on the tracked user behavior data and they are useful for measuring progress, identifying consumer patterns and optimizing interventions (Siemens and Baker, 2012). The capability of properly analyzing and managing these data reinforces the long-term success of a company by sustaining development approaches, such as the Lean Startup model described in Chapter 1.3.

All the theoretical concepts mentioned above serve as a foundation for the correct creation and evolution of digital platforms, whose market has been growing especially in educational contexts. Indeed, digital tools are often used for behavioral learning, targeting families and children. Ethical considerations and educational objectives are balanced in order to provide efficient learning platforms to those who seek to educate or grow. The greatest example of this balance is trying to avoid excessive screen usage, while still efficiently leveraging digital tools, so that technology can become a helpful tool to follow healthy habits, rather than being a distraction used in an unsustainable way. Successful platforms for behavioral learning are the ones that target families, providing parents with the necessary tools to indirectly change their children's mannerisms to healthier ones. Indeed, according to Plowman, McPake and Stephen (2010), parental involvement is fundamental for the success of digital learning for children, making parents the primary users. Additionally, to the psychological and technological components previously mentioned, it is important to remember that a platform could not exist without users, making their engagement a key driver to success. This is influenced by several variables, such as emotional connection, usability, perceived value and trust (O'Brien and Toms, 2008). Regardless of how sophisticated organizations' technologies are, those who fail to implement these variables in their platforms will be less likely to achieve their behavioral goals. Thus, managers must try to align their businesses to their user needs, by carefully designing platforms in an intuitive and motivating way. From a broader managerial point of

view, incorporating behavioral learning tools into digital platforms represents a shift towards an outcome-oriented education, focused mostly on behavioral impact, user centered designs and real word application, rather than solely relying on knowledge acquisition. In order to ensure their platforms are scalable, effective and successful, new ventures operating in this environment must be able to first gain a deep understanding of human behavior and then combine it with technological innovation.

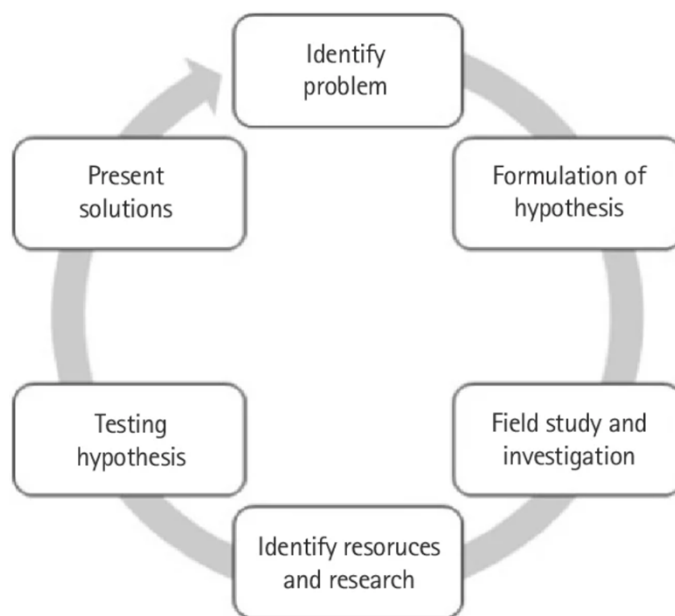
Although digital behavioral learning tools present many benefits, some disadvantages must be considered, the main one being the risk of usage fatigue, where an overly complex system or an excessive number of daily notifications can eventually lead to disengagement (Mark et al., 2016). Another challenge is the improper management of sensitive user information and data security. Organizations must ensure privacy, trust and transparency and all times, balancing data-driven insights with ethical considerations. A final concern is the effectiveness and efficiency of technology as a key tool in changing users' daily routines. This concept relates to the Technology Acceptance Model, which highlights that, in order to be successful, platforms must satisfy two conditions: perceived usefulness and perceived ease of use (Davis, 1989).

In conclusion, organizations can increase consumers' long-term engagement with their platforms by aligning user capabilities and expectations with digital behavioral tools. By combining technology and psychology with a proper management of resources, these can influence human behavior, representing a key feature of modern digital learning ecosystems. The increase in demand for solutions that support behavioral development allow for the educational sector to grow exponentially, leading to the creation of more platforms targeted to children and families. Because the user base includes so many individuals seeking personal development through educational contents, managers must find a balance between usability and innovation, keeping in mind ethical consideration. As discussed, habit formation, gamification, nudging, customization and data analysis, are all mechanisms that can enhance the effectiveness of these tools, increasing the competitiveness of these platforms in the digital learning market.

2.3 Educational Digital Platforms and Learning Innovation

Thanks to learning innovation, digital platforms were able to evolve from simple content delivery virtual spaces into more complex environments, which combine technology, psychology, user interaction and pedagogy to provide effective educational contents for children and families. This represents a strategic shift from passive knowledge to active, user-centered and experimental learning systems. In the educational platforms' context, innovation is a crucial tool to emphasize adaptability and experimentation approaches for the continuous learning of users and organizations (Selwyn, 2016; Laurillard, 2012).

This evolution can be understood by studying and analyzing the concept of learning startups, which combine innovation with entrepreneurial and educational thinking. They can be defined as project-based educational strategies which, by applying startup methodologies, such as iteration, experimentation and user feedback, can better develop new learning tools and processes (Strutynska and Umryk, 2019). These kinds of startups continuously evolve with the help of refinements and testing, making them dynamic systems suitable for digital environments, as opposed to the rigid and curricular-driven traditional educational models. Strutynska and Umryk (2019) further emphasize the strict relationship between learning startups and project-based learning (PBL), an approach based on the circular diagram provided on Figure 11. Thanks to this approach, users are able to learn and acquire the necessary skills to improve their knowledge through simulated and real-world project engagement. According



to the authors, learning is the outcome of experimentation, collaboration and active problem-solving, rather than the result of passive instruction. The PBL cycle perfectly aligns with the modern digital world, in which users are expected to actively engage with platforms for a better personal development and for more accurate feedback.

Figure 11: Project Based Learning to Enhance Environmental Education through Automobile Mechanics (Vazquez Vargas et al. 2019)

From a managerial point of view, integrating PBL principles into digital platforms demonstrates how platforms have shifted from informational environments to deeper learning experiences, which gives a clear insight into organizations' new approach to create and deliver value. Structural activities, interactive features and feedback mechanisms are, in fact, at the base of any successful digital learning platform. For this reason, in order for managers to develop and increase the usage of their platforms, they must adopt a user-centered and flexible approach, which aligns with what can be found in startups environments (Klopfer, Osterwil and Salen, 2009).

Given the fact that behavioral intentions develop and grow thanks to the use of digital tools, it can be said that the concept of learning startups extends beyond education, towards a specific educational platform design. Indeed, organizations must aim at changing decision-making processes by influencing individuals' routines and habits, rather than solely focusing on superficial knowledge transfer. This is particularly relevant in environments in which platforms target families and children, as managers must think of designing them in such a way that allows users to consistently interact, instead of passively learning through formal instruction. This can be achieved by structuring the platform in a flexible and dynamic way in order to obtain gradual behavioral changes (Deterding et al., 2011). Additionally, similarly to project-based organizations, learning startups operate as temporary experimental systems, meaning each business can work on multiple projects, with different resources, objectives and evaluation criteria at the same time. By doing so, entrepreneurs and leaders can assess the effectiveness of several learning strategies within the same organization. This focus on experimenting and obtaining feedback from users, reinforces the close relationship between entrepreneurial practices and educational innovation, further enhancing the Lean Startup methodology principles discussed in Chapter 1.3. Furthermore, project-based learning startups consider problem-solving skills as a crucial factor in entrepreneurial environments, since it's believed they help create value in modern educational systems.

The combination of learning startups and project-based learning originates from STEM education, acronym for Science, Technology, Engineering and Mathematics. This learning approach focuses primarily on the so-called "learning by doing" according to which students, or generic learners, must test hypotheses, build prototypes and refine their understanding through a cyclical process. This concept is strictly related to the logic behind successful startups, according to which ideas must constantly be developed, tested and improved

depending on the feedback received by customers. These principles such as user engagement and iterative improvement expand beyond technological learning contexts, since they are also applicable to habit formation and behavioral learning environments, thanks to the use of digital tools for active participation. Hence, the relevance of this framework within the present study does not lie in its original disciplinary focus on STEM education, but rather in its methodological approach to learning and innovation.

As already mentioned, other fundamental aspects of digital learning innovation are the role of customer engagement and the strategic collection of user data. In highly competitive markets, such as the digital one, platforms must be able to capture and retain user attention. They do so by enhancing the learning experience, through features that encourage active engagement, such as gamification and storytelling (Hamari, Koivisto and Sarsa, 2014). At the same time, by collecting and analyzing user data, platforms are able to continuously improve by identifying users' behavioral patterns and creating personalized experiences (Siemens and Baker, 2012). This creates a continuous feedback loop, which has become a fundamental mechanism for the learning startup framework, since it takes into consideration user outcomes and innovation for the improvement of digital platforms. An illustration of this cycle is provided in Figure 12.

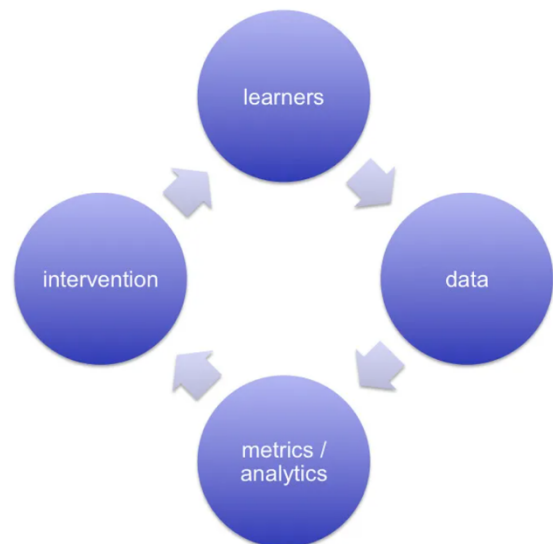


*Figure 12: The Learning Analytics Cycle
(Clow, D. 2011)*

From an organization's perspective, in order to adapt a learning startup, some elements, such as innovative ideas, managerial flexibility, pedagogical and psychological understanding and technological capabilities are required. Leaders must design a first prototype, to then test and analyze for user feedback. Once this is done, they can adapt their strategy to the results received and repeat this process for long-term success. According to Klopfer, Osterweil and Salen (2009), cross-functional collaborations between managers, designers, developers and educators are often needed, highlighting the interdisciplinary nature of digital learning innovation. Moreover, the ability of educational platforms to align user expectations and needs with the organization's learning objectives, represents a key element for the success of the

business. More specifically, for platforms targeting children and families, it is important to have a strategic design, which can be easy to integrate into daily routines, trustworthy, intuitive and overall effective. As a consequence, the learning startup approach aims at prioritizing users by putting them at the core of the development process, continuously adapting the platform to their needs, thanks to their feedback.

In conclusion, integrating learning startup principles and project-based learning into digital platforms is fundamental in order to understand how the educational innovation market has evolved over time. Elements such as experimentation, user engagement analysis, and iterative improvements are at the base of an effective and successful platform, which constantly aims at adapting itself to create better learning solutions. Although this approach was created with the development of STEM education, the application of these elements extends to several distinct contexts, such as digital habit formation and behavioral learning. For this reason, they are essential for the analysis of modern digital platforms, where learning is personalized, interactive and embedded in everyone's lives.

2.4 Implications for Digital Platform Development and Adoption

The development and expansion of digital learning platforms represents a shift from simple tools for content and knowledge delivery to more complex systems, in which the interaction between user behavior, innovation and technological development play a key role. This evolution requires a strategic managerial approach that extends beyond just responsiveness, flexibility and the implementation of technological innovation. A manager must design a platform so that it functions effectively and it's dynamic, meaning it can adapt to changes in competitive digital environments, by the analysis of user feedback. This last element represents a crucial aspect for the success of a platform. The increasing complexity in user needs forces organizations to implement experimental approaches in their platforms. Their ability to develop an idea, refine it through continuous testing and improve it through feedback is fundamental to ensure the results of these experiments remain relevant, while also reducing market uncertainty. This strengthens the idea behind implementing feedback-driven and project-based processes into learning startups, which allow them to quickly adapt to market changes and build a valuable product or service over time.

Concurrently, educational platforms provide valuable and clear content that fits with users' routines, making behavioral learning and user engagement the two main elements of success. Platforms also must be dynamic, meaning they adapt over time depending on customers' needs by balancing trust, simplicity and effectiveness. This underlines the cruciality of user perception and interaction in platforms, which is significantly more important than a design solely focused on technological quality and innovation.

Finally, it can be said that the development and adoption of digital platforms follow interdependent processes, based on integrating technological innovation with a user-centered design that can provide continuous improvements. Indeed, if a platform is well designed but hard to use and engage with, it will most likely not succeed in the market. This is mainly because even when users have a strong interest in the content provided, they require a high level of usability and functionality. This standpoint represents the key managerial foundation for the development and examination of the SuperMarco case study, whose empirical analysis will be provided in the following chapter.

CHAPTER 3: EMPIRICAL ANALYSIS ON THE SUPERMARCO PROJECT

3.1 Case Context: Live Connection S.r.l. and the SuperMarco Project

When looking at the evolution of digital transformation, it can be noticed that innovative startups have been playing a crucial role for the development of new solutions, focused at integrating technology with learning tools to better involve users into platforms. In particular, digital education and online learning has been exponentially growing in the past few years, pushing multiple businesses to adopt experimental approaches aimed at continuous innovation (Bond et al., 2018).

In this context, it is possible to find Live Connection S.r.l., an Italian innovative startup operating in the digital formation sector and based on an educational platform, whose objective is to make learning processes more accessible, engaging and personalized (People, 2025). Founded in 2021, this startup develops digital solutions focused on the development of professional competences, educational formation and e-learning. It operates through “People” a platform used as a tool for recruiting, based on innovative digital methodologies, aimed at the creation of flexible and interactive educational experiences (People, 2025). This new venture uses an approach that reflects the evolution of the digital education market, in which platforms no longer represent simple tools of content distribution, but they are real digital ecosystems able to integrate knowledge and learning with user involvement (Selwyn, 2016).

“People” was created on the idea that formation doesn’t only represent a traditional educational activity, but also a strategic tool to encourage innovation, prevention and development of competences in different social and professional contexts. Through the use of digital contents and interactive tools, Live Connection S.r.l. focuses on creating learning experiences that can adapt to the needs of a variety of different users, by taking advantage of the opportunities offered by digital technologies (People, 2025). This vision is coherent with the evolution of contemporary educational platforms, characterized by a growing attention on personalization, accessibility and continuous learning (Khan, 2005).

Within the People platform, it is possible to find several projects, focused on several different aspects of digital learning. Among these, it is possible to find “SuperMarco”, the latest initiative conceived and designed by Live Connection S.r.l., with the scope of assisting families and parents to educate and raise their children. Indeed, its objective is to support the development of healthy habits in children through the use of digital tools and online contents,

strengthening user awareness on topics related to children's wellbeing, hygiene and daily routines (People, 2025). On the contrary of many traditional educational platforms solely focused on school learning, by using audiovisual content, social media and other communicative tools with a simple language, SuperMarco is able to highlight the importance of behavioral learning, making the platform closer to the current digital world. The project is named after the superhero "Super-Marco", a digital character designed to represent a positive role model and engagement tool for children. Through the use of videos, songs, storytelling and digital contents diffused through the People platform and social media, the project aims at reinforcing healthy behavior and correcting daily habits in an accessible and engaging way. The first example that launched the project is "Lava Lava", an educational video that, through a catchy song, teaches children how to properly brush their teeth, combining entertainment and behavioral learning (People, 2025). This approach reflects the typical dynamics that can be found in modern digital platform, in which short contents, such as videos of this kind, that can be easily shared to a vast variety of people, become crucial tools to gather user attention and stimulate continuous engagement (Hamari, Koivisto and Sarsa, 2014).

From a managerial perspective, SuperMarco represents a significant example of digital innovation applied to the educational sector. The project combines several elements, such as iterative development, digital tools and a user-centered approach with a particular attention on user involvement and engagement. In particular, there's a focus on building a solution that can enter families' daily routines, exploiting intuitive and easily accessible communication tools. This point of view is exceptionally relevant in contexts in which user's attention span has become more and more limited, which forces platforms to constantly adapt to user needs in order to maintain a standard level of interest and a continuous usage (Siemens, 2005). Furthermore, the project presents the typical characteristics of innovative startups and Project-Based Organizations (PBOs). Indeed, SuperMarco is developed through an approach that is flexible and oriented to experimentation. In environments characterized by a high level of uncertainty, such as the educational digital platforms sector, startups tend to adopt iterative structures, aimed at reducing risks and progressively adapt the service to the market and customers' needs (Auschra et al., 2019). This approach perfectly aligns with the Lean Startup Model analyzed in Chapter 1.3, according to which the development of an innovative product requires continuous experimental processes, feedback gathering and progressive improvement (Ries, 2011).

Another relevant element relates to the role of digital communication within the project. SuperMarco uses contemporary technological tools such as social media, short video and storytelling, with the main purpose of increasing the project's visibility and encouraging users' engagement. Using an easily recognizable digital superhero represents a strategic tool to create familiarity and continuous emotional connection with the user-base. This aspect is especially important when the main targets are families and children, since the communicative effectiveness directly influences the project's ability to be perceived as useful and easy to use. This strictly relates to the Technology Acceptance Model (TAM), discussed in Chapter 1.5, making SuperMarco an extremely relevant case for this analysis. Being the project mainly aimed at parents, its success strongly depends on the perception users have on utility, simplicity and reliability. In other words, in order for the project to be adopted in the long-term, parents must find the platform easy to use and in line with their educational needs, so that its real value can be perceived by all users (Davis, 1989).

Overall, Live Connection S.r.l., the platform People and the project SuperMarco represent a case study coherent with the main dynamics that characterize the contemporary market of educational digital platforms. The integration of innovation, digital learning, engagement and iterative development, make the project particularly relevant for the analysis of how a project-based startup can design, develop and promote an innovative digital platform in a highly competitive and dynamic context. Moreover, the case study allows the reader to observe how theoretical frameworks, such as the Lean Startup Framework, Project-Based Organizations (PBOs) and Technology Acceptance Model (TAM) can be applied for the development and analysis of a concrete project in the real world.

3.2 Development of the Platform: applied Lean Startup Framework

The development of the platform “People” and of the SuperMarco project can be interpreted through the Lean Startup Model formulated by Eric Ries (2011) and analyzed in Chapter 1.3. This approach is based on the idea that startups operate under high uncertainty conditions, where risk of failure can be reduced by providing products and services that are created through iterative processes of experimentation, feedback gathering and continuous learning. For this reason, the case of Live Connection S.r.l. represents a significant example for the application of the Lean Framework within a digital educational platform aimed at behavioral learning.

One of the main elements of the Lean Startup Framework is the use of a Minimum Viable Product (MVP), which is a first prototype developed only with the essential features needed to test market hypotheses and collect data from real users (Ries, 2011). In the case of the People platform, Mary Rose Castillo, Chief Operations Officer (COO) at Live Connection S.r.l., stated:

“The first version of the platform was defined through the contribution of training experts and psychologists, who recognized that traditional training models were no longer sufficient to fully engage users or support effective learning outcomes. The MVP was therefore conceived as a more interactive, user-centered environment, designed to make learning more engaging, practical and accessible. The idea was not to simply digitize content, but to create a training experience that responded to new educational needs and to the growing demand for more dynamic and participatory learning paths” (Mary Rose Castillo, personal communication).

This statement highlights the importance of starting from a concrete problem and building a flexible solution around users’ real needs. According to Blank and Dorf (2012), successful startups do not begin with complete and perfect products, but with hypotheses to be validated through direct contact with the market. In the case of SuperMarco, the main concern was the difficulty in communicating messages related to healthy habits and routines to children, only using traditional methods. For this reason, the project's innovation consists in transforming this content into an interactive experience, based on storytelling, symbolic characters, and active participation. The Lean approach was also crucial for the initial definition of the platform’s features, which were “usability, interactivity and accessibility for both sides of the experience”

(Castillo, Personal communication). Indeed, instead of developing a complex system from the early stages, the project focused more on implementing strategically relevant elements. In this regard, focusing on usability and interactivity underlines the desire of the startup to maximize user-perceived value since the beginning of the project, while simultaneously reducing unnecessary investments. This aligns with what Eisenmann, Ries, and Dillard (2012) believed, that is startups should focus limited resources on features that generate the greatest learning.

Another key element of the Lean Startup Framework concerns the feature prioritization process. Ries (2011) argues that startups must constantly decide what to include and what to postpone, so that the business can balance innovation, economic sustainability, and development speed. Even in the cases of People and SuperMarco, strategic decisions were strongly influenced by the availability of financial and organizational resources. Indeed, Castillo (Personal communication) affirms that the first focus was placed on the elements that would most likely generate a more immediate return on investment, in order for the project to create the necessary conditions for further development. This perspective demonstrates how the Lean Startup Framework represents not only a model for technological innovation, but also a managerial approach geared towards sustainability and risk management. In particular, the case study considered, highlights the importance of balancing educational objectives and financial constraints in a new venture, in order to gradually develop a project based on the available resources. In this regard, Castillo (Personal communication) explained that “the project faces several constraints, especially in terms of budget and team size. To manage costs more effectively, Live Connection activated partnerships, including collaborations with ECM providers, which helped distribute part of the investment”. This strategy reflects a typical characteristic of Lean startups: the use of external partnerships to compensate for the lack of internal resources and accelerate the development process (Blank and Eckhardt, 2023). Outsourcing the software component to a specialized company also allowed the internal team to focus on the strategic, educational, and creative aspects of the platform.

The second phase of the Lean Startup Framework is Measure, which takes into consideration the systematic collection of feedback and data, useful for the evaluation of the product’s effectiveness. Ries (2011) defines this process as “validated learning”, as it allows entrepreneurs to understand whether their initial hypotheses are correct. In the case of People, feedback collection represents a structural component of the entire platform. Castillo (Personal communication) stated:

“Feedback collection is an integrated part of the platform experience. The platform automatically sends surveys at different stages of the learning journey: during the course, immediately after the course, three months after completion, one year later, and again after three years. This structured feedback system allows us to collect insights not only on the immediate user experience, but also on the medium- and long-term perceived effectiveness of the training”.

What Castillo remarked, perfectly aligns with the Build-Measure-Learn logic, as it allows the platform to gather data on user experience both in the short and long-run. The combination of quantitative and qualitative data allows the startup to better understand user behavior, as well as the platform’s effectiveness. As highlighted in the interview, Live Connection S.r.l. looks at survey responses, participation patterns and measurable indicators related to training experience for quantitative data, while, on the qualitative side, they examine written feedback, comments and more descriptive evaluations provided by users (Castillo, Personal communication). The integration of different kinds of data represents a fundamental aspect of digital educational projects, as elements like engagement, motivation and value perception cannot be measured exclusively through numerical indicators (Siemens and Baker, 2012).

The third phase of the Lean Startup Framework is “Learn”, which relates to the startup's ability to learn from the results obtained and modify its strategy based on the gathered feedback. This process can lead to small, incremental adjustments or significant strategic “pivots” (Ries, 2011). In the case of People, the project implemented numerous progressive improvements based on user experience. Some examples include creating integrated guides within the platform, making important buttons more visible and adding clearer description under specific features (Castillo, personal communication). Beyond these small adjustments, which demonstrate a strong focus on user experience and ease of use, the project also underwent a significant strategic evolution in its market positioning. Castillo (Personal communication) observed that, looking back, the SuperMarco team would have probably chosen to “work directly with training institutions and universities, instead of spending about a year trying to involve freelance professionals as course providers”. This shift represents a concrete example of entrepreneurial learning, where contact with the market allowed the team to understand the most effective channels for ensuring growth and sustainability. According to Blank and

Eckhardt (2023), this type of learning is at the heart of the Lean Startup Framework, as it allows startups to progressively adapt to real market dynamics.

The relationship between innovation and risk is an additional concern in digital startups, which operate in a highly unstable and competitive environment, where the success of an idea depends not only on the quality of the technology but also on the market's ability to accept it. Castillo was able to experience this element while working on the SuperMarco project. “One of the biggest lessons we learned is that the market is often not immediately ready for innovation, even when the solution itself is valid”, she declared (Castillo, personal communication). This reflection confirms the theory suggested by Ries (2011), according to which the main risk for a startup doesn't solely lie in the technical development of the product, but in the lack of market validation, which is why the Lean Startup Framework plays a crucial role in reducing uncertainty through continuous experimentation and rapid learning.

Overall, the SuperMarco case study demonstrates how the Lean Startup Framework can be effectively applied to digital education and behavioral prevention. Given the use of continuous feedback, progressive adaptations and constant learning, the iterative approach adopted by Live Connection S.r.l. enabled the development of a project that was fully focused on user needs and expectations. Rather than developing a rigid and definitive platform from the beginning, the company chose to gradually build its educational ecosystem, adapting to the market by maintaining high strategic flexibility. As a result, the project represents an empirical example of how the Lean Startup model can support the sustainable development of innovative digital platforms in contexts characterized by high uncertainty and continuous technological evolution.

3.3 Organizational Structure

The organizational structure of an innovative digital startup is one of the key elements for understanding its development and functioning. As already analyzed in Chapter 1.4, the majority of new ventures operate through a Project-Based Organization (PBO) model, characterized by flexible, interdisciplinary and project-focused teams, which substitute the traditional hierarchical structure. This organizational model is especially common in digital and innovative environments, in which rapid adaptation, collaboration and risk management become the most important factors for the success of the business (Sydow, Lindkvist, and DeFilippi, 2004). The case of Live Connection S.r.l and its SuperMarco project demonstrate how a startup can adopt a collaborative organizational structure, by building a multidisciplinary team composed of members with different but complementary skills, in order to develop a highly innovative digital education project, perfectly reflecting the PBOs' dynamics. As Castillo (Personal communication) stated:

“The project is managed by a small multidisciplinary team with clearly defined roles. A psychologist is involved both in the educational development of the project and in the creation of the songs, helping ensure that the content is engaging and appropriate for children. The art director oversees the visual identity and creative direction of the project, while the COO manages and coordinates the overall activities, ensuring that the operational side runs smoothly”.

This organizational structure perfectly aligns with the theory proposed by Bocean (2011), according to which PBOs tend to integrate different professional skills within small and highly specialized teams, aiming at developing innovative projects in a more dynamic and efficient way. In the case of SuperMarco, the presence of psychological, creative, educational, and managerial skills allows the project to be approached from different perspectives at the same time, improving the overall quality of the educational experience. Additionally, it is important to consider that multidisciplinary is especially relevant in digital educational projects, such as the considered one, as these platforms require a combination of technological, pedagogical, and communication skills. Indeed, according to Guerrero et al. (2017) the competitive advantage of innovative startups often depends on the ability to integrate diverse knowledge within a single organizational ecosystem. In the SuperMarco case, this integration is exceptionally relevant, considering that the project combines interactive digital tools with educational content, storytelling and health prevention.

The way operational activities are coordinated within the team further connects the case study with the Project-Based Organizations theory. As Miterev, Mancini, and Turner (2017) highlighted, PBOs are characterized by organizational structures that are less rigid than traditional business models, which allows for continuous communication and cross-functional collaboration among team members. In this regard, Castillo (Personal communication) emphasized:

“We coordinate tasks and responsibilities through a combination of regular meetings and daily communication tools. Every two weeks, the team meets to compare progress, review analytics, and define new strategies. In addition, we use a WhatsApp group for ongoing communication and Google Drive to manage shared documents and project materials. This allows us to keep the workflow flexible while maintaining alignment across the team”.

This organizational structure further emphasizes the key elements of digital startups, which are rapid decision-making and a strong focus on flexibility. Unlike traditional businesses which follow a hierarchical structure with a top-down communication flow and formalized paths, startups like Live Connection S.r.l. favor immediate and continuous collaboration tools, which allow for user feedback and rapid adaptation to market changes (Auschra et al., 2019). Moreover, the operation through instant messaging apps, such as WhatsApp, and collaborative digital platforms, such as Google Drive, demonstrate how technology is not solely the end product of an innovation, but also a fundamental managerial tool. This is relevant especially in startups with limited resources, in which the effective coordination of activities and the rapid information sharing can have an enormous impact on the firm’s innovative growth. In the case of SuperMarco, Castillo (Personal conversation) highlighted that “decisions are made collaboratively, and the project is developed through team discussion and shared evaluation, rather than through a purely top-down management model”. This aligns with the argument made by Elazaj, Morina, and Kuqi (2020), according to which, in order to encourage discussion and sharing of expertise, PBOs distribute decision-making power among several individuals. As a result, more innovative solutions, consistent with the project’s goals, are developed. In the case of SuperMarco, the involvement of several professionals, with distinct skills, in the decision-making process creates a balance between all the different crucial dimensions: strategic sustainability, effective communication and educational quality.

Another essential characteristic found often in PBOs is the flexibility the projects offer. In the case of SuperMarco, the project is not managed as an isolated identity, but as a part of a broader educational ecosystem. Indeed, Castillo stated: “The project is integrated with other activities rather than being managed as a completely standalone unit. [...] This makes it a cross-functional project that combines content creation, prevention, education and community engagement”. This aligns with what Santoso et al. (2023) believed about innovative startups. According to him, projects are not only used as operational tools but, in these contexts, they become true environments for entrepreneurial learning and continuous experimentation.

The SuperMarco project is also consistent with the theory analyzed in Chapter 1.4 about Project-Based Entrepreneurial Learning (PBEL). Here, projects extend over a purely economic-focused model, generating organizational learning through experimentation, feedback and continuous adaption for improvement. As Castillo explained: “The project is generally reviewed and updated every three months. This regular revision cycle allows the team to monitor results, assess what is working well and introduce adjustments or new ideas in a structured way”. This practice relates to the Build-Measure-Learn cycle of the Lean Startup Framework, highlighting the close connection between organizational structure and development methodology. Indeed, PBOs attempt to foster continuous learning processes to maintain organizational flexibility and rapid adaptation from feedback.

Despite the project-based structure providing many advantages, there are some challenges to consider, the first one being the difficulty in managing a large number of activities with a limited number of people (Castillo, personal communication). This is a common issue in digital startups, especially in the early stages of their life cycle, when the team is still small and the financial resources limited (Salamzadeh and Kawamorita Kesim, 2015). In these contexts, the risk of operational overload can negatively impact both the productivity and organizational sustainability of the project. However, the case proves that it is possible for new technological innovations, such as artificial intelligence, to support the management of these difficulties. “The use of AI tools has helped us handle pressure in terms of time, coordination and workload distribution more effectively, supporting both productivity and organization and making it easier for a small team to manage a broader range of activities” (Castillo, personal communication).. This represents a particularly interesting element, as it highlights how innovative startups do not exclusively use technology to create external value, but also to

optimize the team's internal processes. In this context, AI becomes a strategic tool to strengthen productivity, efficiency and management capacity within small teams.

Overall, SuperMarco's organizational structure emphasizes the attention modern digital startups place on collaborative, flexible and project-oriented structures, rather than following a traditional hierarchical model. This approach allows new ventures to integrate multidisciplinary skills to quickly adapt to market changes and continuously improve through iterative learning processes. In the case of Live Connection S.r.l. and the SuperMarco project, this structure is not just an operational choice, but it's an integrated element of the project's innovation strategy, supporting the growth of a digital educational environment focused on prevention, participation and active user engagement.

3.4 Strategic Configuration and Value Proposition

In the context of innovative digital startups, one of the key elements for building a competitive advantage over the competitors and to differentiate in the market is the definition of a clear value proposition. As previously highlighted, digital educational platforms operate in a dynamic and highly competitive environment, characterized by constant changes in user needs, technology and a growing focus on engaging and personalized learning experiences. For this reason, the SuperMarco project, developed by Live Connection S.r.l. aims at creating an innovative educational ecosystem for children and the educators who support them, through the combination of digital interaction, education, storytelling and health prevention.

One of the main elements of the project's strategic configuration is the educational mission. SuperMarco was not only conceived as a traditional digital tool, but as a project aimed at promoting positive and healthy behaviors through engaging communication methods. As emphasized by Castillo (Personal communication), “the idea of SuperMarco originated primarily from an identified educational need: finding a more effective way to help children recognize and overcome unhealthy habits through engaging, age-appropriate content”. This statement perfectly aligns with what analyzed in Chapter 2, that is the gradual shift the educational platform market is facing towards more interactive, experimental and personalized learning models. For this reason, SuperMarco aims at addressing complex topics related to prevention, health and daily habits, in a way that is meaningful to families and children.

Building an integrated educational ecosystem, characterized by the combination of different user groups, rather than an isolated digital product is another element of the project's strategic configuration that SuperMarco tries to focus on. Children are the primary audience of SuperMarco, but parents, schools and educational professionals play a key role as intermediaries and facilitators (Castillo, personal communication). As a matter of fact, the project reinforces the idea that educational value cannot be generated solely through digital content, but the support of adults is needed to facilitate the transmission of educational messages in children's everyday lives. Therefore, SuperMarco is an ecosystem connecting different individuals to a common goal of prevention and well-being, which perfectly relates to theories of educational innovation. According to Siemens (2005), the value of digital platforms depends on their ability to create participatory communities and collaborative networks. This integrated ecosystem approach, is also reflected in the growth strategy which, in the case of SuperMarco, “is based on strengthening the project as a multiplatform educational initiative:

not only comics and songs, but also in-person events, prevention campaigns, training for parents, and collaborations with schools and specialized partners” (Castillo, personal communication). Given this statement, it can be said that SuperMarco is currently adopting a horizontal expansion strategy, by developing content and activities that are different, but consistent, with the project core mission. Combining physical activities with digital tools supports the team by enhancing the perceived user value, strengthening the project’s positioning in the educational and preventive market. This strategic configuration positively influences managerial decisions, as it increases the project’s flexibility and growth potential by reducing dependence on a single product or distribution channel. Indeed, in order for innovative startups to succeed, they must be able to develop dynamic or organizational capabilities that allow them to quickly adapt to market changes and seize new strategic opportunities.

From a value proposition standpoint, the project stands out for its capacity of transforming preventative and educational content into engaging and accessible narrative experiences. Indeed, SuperMarco transforms “invisible or routine problems into concrete, memorable characters and situations so that bad habits become ‘monsters’, while healthy choices become ‘superpowers’” (Castillo, personal communication). This element represents one of the key differentiation factors of the project. Rather than solely focusing on transmitting information, SuperMarco uses symbolism, storytelling and active participation to facilitate learning and emotional engagement in children. This can be done through the use of gamified dynamics, which significantly increase motivation and user participation, especially in digital educational contexts. The use of storytelling further simplifies and concretizes abstract concepts, so that they can be more easily recognizable by children. This strategy aligns with the argument made by Gee (2003), according to which learning is more effective when users are actively involved in meaningful and immersive experiences.

An additional crucial element for the value proposition in digital startups is the participatory nature of the educational experience. Indeed, in the SuperMarco project, “a very strong feature is interactivity: the coloring pages and empty speech bubbles do not position the child as a passive consumer, but as a cocreator of the story”, highlighted Castillo (Personal communication). This statement enhances the importance in the shift from passive learning models to collaborative experiences, which is one of the most important transformation characteristics in modern digital education platforms. In the example of SuperMarco, children are directly involved in the creative process through imagination, drawing, storytelling and

interactive activities, an approach that is consistent with what Piaget (1970) believed about educational constructivism: learning occurs more effectively when individuals actively participate in the construction of knowledge. From a strategic point of view, active user engagement also represents a fundamental tool for competitive differentiation in the educational platform sector. In an environment with high volume of content, but short user attention span, creating engaging and memorable experiences is essential to foster loyalty and participation (Kapp, 2012).

The combination between education and engagement further enhances the value proposition of the SuperMarco project, as it represents one of the key elements of success in the EdTech sector. As a matter of fact, modern educational platforms must be able to maintain high user participation without compromising the educational quality of the content and, in the case of SuperMarco, this is achieved through the integration of music, symbolic character and interactive activities into the project. The case's strategy is also highly focused on building user trust, which is a crucial element especially when the business operates in a highly uncertain sector and the target audience involves families and children. Castillo (Personal communication) affirmed:

“Users tend to trust digital tools for behavioral learning when they feel that the tool is well designed, easy to use, and backed by a credible educational vision. In the case of SuperMarco, trust is strengthened by the fact that the project is not based only on technology, but on a broader educational framework that involves creativity, prevention, and support from adults such as parents, educators, and professional partners”.

This statement highlights a crucial aspect that concerns digital startups and their projects. Technology is not enough to ensure the adoption of educational platforms for minors, as other elements, such as credibility, safety, involvement of qualified professionals and family support are crucial to build user trust and encourage the engagement with the project.

A final element to be considered is the role of artificial intelligence in the development of the project and its future phases. In the case of SuperMarco, Castillo declared that “AI is not seen as a substitute for human creativity, but as a tool that enhances productivity, speeds up content development, and makes it easier for a small team to produce high-quality educational materials”. Therefore, AI allows the project's team to develop innovative educational content

more efficiently, contributing to its scalability and sustainability. This use of AI as a tool for enhancement and creative support is consistent with the current industry's expectations. In the past few years, emerging technologies have become part of companies' business models to increase productivity and innovation capacity without replacing human input and their creativity.

Overall, the strategic configuration of the SuperMarco project is a perfect example in demonstrating how digital startups can create value through the combination of educational prevention, emotional engagement, active user participation and technological innovation. Live Connection S.r.l. has decided not to develop a traditional content platform, but build an educational ecosystem aimed at creating meaningful and easily accessible experiences. Indeed, the project's value proposition focuses on managing the capacity to transform learning into a relational and participatory experience, able to create educational value for children and the adults involved in their upbringing.

3.5 User Adoption Analysis

In order to understand how potential users perceive digital platforms aimed at the development of healthy habits in children, a survey was conducted, based on the Technology Acceptance Model (TAM) proposed by Davis (1989). The main objective was to analyze the two key factors of this model, which are perceived usefulness and perceived ease of use, as well as other crucial elements, such as user trust and behavioral intention towards the SuperMarco project. The survey serves as a tool to connect the theoretical frameworks analyzed in Chapter 1 with the empirical results from the case study proposed in Chapter 3. The survey was created on Google Forms, structured in six main sections and then distributed online. The questions were formulated using a multiple-choice selection for the demographic profile and a 1–5 Likert scale, 1 being “strongly disagree” and 5 being “strongly agree”, for all remaining sections: digital habits, perceived usefulness, perceived ease of use, trust and attitude towards technology and finally behavioral intention. Likert scales appropriately measure users’ behavioral intentions and attitudes towards technology innovations, making it a perfect tool for the analysis of the SuperMarco project (Venkatesh et al., 2003). The majority of participants were in the 25–34 and 35–44 age groups, each accounting for 45.5% of the total, while the remaining 9.1% was above 55 years old. Of all respondents, 90.9% declared to have children, which is an essential data given the primary target of the SuperMarco projects is parents. As shown in Figure 13, among those children, the majority is below 5 years old, followed by 6–10 and 15+ years, which each account for 23.1% of the total. This indicates how important it is for parents of infants and preschool-aged children to implement daily routines and behavioral training from the early stages of their life, proving this is an extremely significant period for the consolidation of healthy habits.

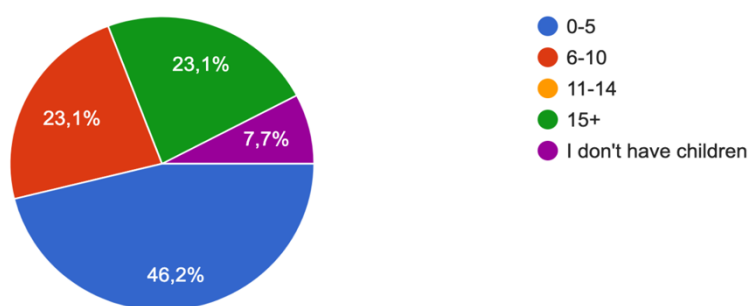


Figure 13: Survey Demographic Profile: Children's age
(Author's own 2026)

In the “digital habits” section, when asked if they believed that children use digital devices excessively, 27.4% of participants agreed, while 54.5% responded with “strongly agree”, meaning over 80% of the considered sample judged the excessive use of digital devices as a real issue, aligning this case with the literature findings of Livingstone and Helsper (2008),

who believed that, in recent years, there has been an increase in parents' concerns about children's digital time management. However, the survey demonstrates conflicting opinions among parents about the difficulty level in managing their children's daily habits, such as routines or screen time. Although the results show that the majority of respondents neither agrees nor disagrees with the statement, there is a general inclination towards believing that managing daily educational activities has become a concrete challenge for new parents. This is relevant as it enhances one of the key prerequisites for the adoption of a new digital platform. Indeed, according to Davis (1989) and its Technology Acceptance Model, users are most likely to adopt a technology or use a platform when it can improve their daily activities and solve concrete problems.

The "Perceived Usefulness" section reveals a high level of openness towards training children's behavior through digital tools. 63.6% of respondents agreed that digital platforms can support parents and educators in developing better daily habits in children, while 27.3% strongly agreed. The majority of participants also agreed with the fact that the SuperMarco project could concretely help parents to manage children's behaviors, through the use of the People platform. This aligns with the perceived usefulness concept explained by Davis (1989), according to which users are more likely to adopt a technology if they believe it can facilitate the satisfaction of their needs or if it can improve their performance. In the SuperMarco case, the value mainly concerns the platform's ability to transform complex educational topics into interactive and engaging experiences. This also emerged in the interview with Live Connection S.r.l.'s COO, who highlighted that the project's main strength is to "turn prevention into a child-centered narrative system" (Castillo, personal communication), making topics such as sleep, kindness and oral hygiene more accessible to children.

The section on "Perceived Ease of Use", shows very clear results, with 90.9% of users strongly agreeing that, for a platform to work, it needs to be simple, intuitive to use and it needs to require minimal effort to understand. These findings perfectly align with the TAM theory, according to which one of the key factors influencing technology adoption is the ease of use (Venkatesh and Davis, 2000). Being SuperMarco's main target audience mainly composed of parents with more limited digital capacities, it becomes crucial for the project to be perceived as simple and easily navigable. Indeed, Castillo (Personal communication) highlighted that the team aimed at keeping the platform "intuitive, visual and highly accessible", favoring easily

understandable content, with storytelling and visual elements, and avoiding overly technical language, an approach that confirms the importance of ease of use in a project's adoption.

Without user's trust in digital tools, platforms like People could not exist. The survey showed a general inclination towards trusting digital tools to support children's development, although some participants were indifferent or in disaccord. These findings are consistent with the conducted interview, in which Castillo (Personal communication) stated that "users tend to trust digital tools for behavioral learning when they feel that the tool is well designed, easy to use, and backed by a credible educational vision". Therefore, trust is a crucial factor that could influence the growth of digital educational platforms in the future. Additionally, users' propensity to adopt new digital tools can be influenced by the perceived quality of the platform's content, its credibility and the presence of reliable professional or educational partners (Bagozzi, 2007). As already mentioned, collaboration with healthcare professionals, psychologists and educational partners contribute to the SuperMarco project to strengthen this perception of trustworthiness.

Finally, regarding Behavioral Intention, 54.5% of the sample agreed they would consider using a platform like SuperMarco, while 27.3% strongly agreed. Of these respondents, over half would recommend this type of platform to others, suggesting a concrete openness towards the use of digital educational tools for supporting parents in developing healthy habits in their children. This is a fundamental element for understanding the TAM, according to which behavioral intention is one of the main predictors of actual usage of a technology in the future (Venkatesh et al., 2003). However, as already discussed, such adoption depends on the platform's ability to provide a simple and reliable platform for real educational value.

Overall, the survey's results demonstrate how the Technology Acceptance Model principles are perfectly applied in the case of SuperMarco, highlighting the relevance of the theoretical frameworks discussed in Chapter 1. Perceived Usefulness, perceived ease of use and user trust appear to be crucial elements for the adoption of a digital educational platform. From the data, it can be seen a growing openness to digital solutions in the market, provided that teams maintain a sustainable balance between accessibility, technology and educational value, making the SuperMarco case extremely relevant for this analysis.

3.6 Managerial Implications for Innovation in Startups

The SuperMarco case study underlines the importance of a developing innovative digital startup to balance organizational skills and strategic vision with a continuous attention to user needs. Both the interview with Mary Rose Castillo, Chief Operations Officer at Live Connection S.r.l., and the quantitative survey conducted online, confirm the theoretical elements analyzed in Chapter 1, proving that success in startups does not necessarily come from an innovative technology implemented into the business strategies, but it is crucial for organizations to create value, through experimentation adaptation to new learning processes.

For a digital startup to be successful, a first element to consider, from a managerial point of view, is the adoption of an iterative approach for innovation development, which is exactly the approach SuperMarco followed. The project is in fact characterized by experimentation, continuous feedback collection, followed by platform modifications. This strategy allowed the team to adapt their original idea to users' expectations and needs and reduce market uncertainty, which can be significantly high in environments with limited resources like the digital education sector.

Additionally, SuperMarco's organizational structure proves that it is not necessary for a team to be large to develop innovative projects; small teams can also do so by following a flexible management approach and strong collaboration. Several strategic aspects can be simultaneously addressed to foster a more integrated vision of the project, through the presence of professionals from different fields with distinct skills, such as psychological, educational and managerial. This kind of structure is consistent with the Project-Based Organizations (PBOs) principles, in which sharing knowledge and collaborating can benefit innovative startups, by becoming a key element of the innovation process.

The need to build a clear and differentiated value proposition further influences the analysis done on SuperMarco. In this case, value does not solely come from technology and digital tools, but from the capacity of managers to use these effectively in order to respond to real users' needs and transform complex educational issues into accessible, engaging and meaningful experiences for families with young children.

Moreover, the responses gathered from the survey allows the reader to carefully observe the importance given to perceived usefulness, perceived ease of use and user trust. These factors

are crucial for the evaluation of a platform like People and a project like SuperMarco, as they can influence the adoption of digital innovations. In these sectors, managers must pay attention to the product or service's technical development, but most importantly they should focus on its clarity of communication, accessibility and credibility. As a matter of fact, trust is a crucial strategic tool for encouraging a continuous use of a platform, especially in educational and child-welfare environments.

Finally, the SuperMarco case study enhances the impact that a proper balance between creativity and pragmatism has on sustainable innovation. Indeed, being able to maintain economic stability, while effectively managing the available resources and market needs, is a crucial element in digital startups. Developing an original and differentiated idea is only the first step, which will consolidate overtime through the strategic use of technology, collaborations with external partners and the capacity of building support networks that can help the organization to grow in the future. For this reason, SuperMarco proves that following an integrated approach that combines flexible organization, experimentation, user focus and a strong value proposition, is fundamental in innovative and educational digital startups, which operate in highly uncertain markets, characterized by rapid technological change and digital solutions aimed at behavioral learning.

REMARKS AND CONCLUSIONS

The objective of this thesis was to analyze how innovation management practices can influence the development and adoption of digital educational projects in Project-Based startups. In such an environment, characterized by exponential technology growth and higher user expectations, it is crucial to identify and effectively manage the factors that influence the success of innovative initiatives. Through the use of the SuperMarco project as a case study, developed on the People platform by the Italian startup Live Connection S.r.l., it is possible to understand how user adoption dynamics, innovation practices and flexible organization structures can create value in the digital learning platforms sector. The theoretical framework developed in the thesis demonstrated how the increasing demand for personalized and flexible training courses and the spread of digital technologies, have helped individuals to become more familiar with online learning tools, leading to a significant growth of this sector in the past few years. However, in highly uncertain industries, in which technology and users' educational needs are constantly changing, the sole presence of an innovative technology is not enough to guarantee the success of a project. Indeed, organizations must be able to gather feedback from users in order to quickly adapt to their needs, through continuous experimentation.

The Lean Startup Framework served as a fundamental tool for interpreting the process innovative startups follow to develop digital initiatives. Experimentation, hypothesis validation and iterative learning are all key principles for understanding how projects evolve under high uncertainty conditions. The analysis of the empirical data on the SuperMarco case, ranging from an interview with a leading expert to primary data collection, prove that the development of such projects is usually characterized by a gradual process, consisting of initial observations, collection of feedback, experimentation of solutions and finally adjustment. This is a cyclical process, providing a more flexible structure than traditional organizations, confirming that innovation is not an isolated event, but it must be considered as an iterative learning process. For this reason, the role of organizational structure is a strong concern for Project-Based Organizations (PBOs), as innovative projects require the coordination of skills within interdisciplinary collaboration, in order to reach higher levels of flexibility. Being the SuperMarco project developed by integrating creative, psychological, educational and managerial skills, the concept of following a lean organizational structure becomes even more relevant. As a matter of fact, the case demonstrates that a startup's innovative capacity mainly depends on its ability to leverage diverse, but complementary, skills and encourage

collaborative decision-making processes, making availability of financial resources a secondary concern.

The concept of value creation was also analyzed, proving that value is not a sole reflection of the contents offered, but it is created depending on the kind of experience the organization can offer to users. In the case of SuperMarco, the effectiveness of an educational solution depends on the capacity of the team to integrate active participation and emotional engagement into traditional learning processes, in order for them to become more flexible. The project aims at transforming themes related to positive habits and presentation, which are usually perceived as too complex by children, into meaningful and understandable experiences for them. This is achieved thanks to the use of multimedia content, recognizable animated characters, storytelling elements and interactive activities. Simultaneously, the involvements of educators and schools enhances the project value, placing it as a broader educational ecosystem within the sector. Moreover, it must be considered that although SuperMarco uses digital tools to share its contents and create value, its goal is not to promote a greater use of technology. The digital component is only used as a support to strengthen the educational role of parents, helping them properly teach their children to acquire healthy habits. This element is what distinguishes SuperMarco from other digital projects aimed at educating children, suggesting that technological innovation in contemporary educational processes can generate value if properly integrated with human relationships and concrete user needs.

All the mentioned considerations were further strengthened by the survey conducted online. The responses demonstrated an overall openness towards digital tools as a support for parents to manage their children's daily habits. However, individuals are more drawn to useful and easy to use digital tools, as they believe these elements can enhance their experience with the platform, facilitating the educational process. The findings confirm the main principles of the Technology Acceptance Model (TAM), suggesting that the adoption of digital educational platforms highly depends on the benefits it can offer, depending on user perception. Simultaneously, trust was proven to be a crucial element in the adoption process. When considering initiatives aimed at children, it is fundamental for the project to be credible and the content to be of high quality, in order for parents to be more willing to adopt it. This means that digital startups should not only invest on the development of their products, but also on building trust with its consumers.

From a managerial point of view, these findings prove that having a multidisciplinary organizational structure, which can facilitate rapid decision-making by integrating different perspectives and skills, is an extremely valuable resource of competitive advantage. Additionally, the research highlights how important it is for organizations, operating in highly dynamic sectors, to adopt a continuous innovation approach. These ventures cannot only rely on traditional strategy plans, but they must be able to adapt their business model to customers' needs by learning from experience. As a matter of fact, placing users at the center of the innovation process is a crucial element to respond more easily to real and perceived needs, usually leading to a platform's success. Moreover, the findings on the Live Connection S.r.l. startup demonstrates that innovation should not only be considered as the introduction of new technologies into a business model, but it should be perceived as the ability of managers to use these tools effectively for value creation. Therefore, developing strategic partnerships, adapting to market evolution and maintaining coherence between original mission, objectives and operational activities, are all influential factors for a project's future growth. This ability to collaborate for building a long-lasting relationship with its ecosystem and to learn from users' feedback are essential to maintain a high level of sustainable innovation within an organization.

Although the research provided an insightful analysis on innovation management practices in digital educational project-based organizations, there are some limitations to consider, the first one being the use of only one startup as a case study. This can limit the generalizability of the findings to other contexts, which could lead to biased responses. Similarly, being the survey administered on a small number of participants, it did not provide statistically representative of the entire population, which is why expanding the sample in the future and including additional organizations as case studies, would improve the quality of the overall research. Additionally, considering the research mainly analyzed the development and adoption process of a project like SuperMarco, further research could focus on evaluating the long-term effects a digital tool like this could have on families and it could explore how such initiatives would be capable of generating lasting behavioral changes. Additionally, it is important to consider the effects artificial intelligence will have on the educational sector. This digital tool has exponentially grown in the past few years, but it is still uncertain what it could become in the future. Expanding the research on understanding the effects it could have on personalized learning and content creation, would help reduce market uncertainty, while analyzing the ethical implications associated with the use of such technologies.

In conclusion, the thesis has proven that innovation management is a crucial element for the success of digital educational project-based organizations, as it can influence their development and adoption. The analysis of theoretical frameworks and models, such as the Lean Startup Framework, Project-Based Organizations and the Technology Acceptance Model, combined with a case study on the Live Connection S.r.l. startup, the People platform and the SuperMarco project, were able to highlight the importance of a constant balance between interdisciplinary collaboration, experimentation, organizational learning and attention to user needs, for the successful development of innovative initiatives. The case study provided revealed that, when it comes to innovation, value creation doesn't only depend on the technology used, but on the capacity of transforming it into a tool that can positively impact people, by adapting to users' needs and building trust. In order for a digital startup to be successful in an environment characterized by continuous technological transformation, it is fundamental for managers to strategically leverage the combination of organizational sustainability, educational value and innovation, in order to contribute to the development of long-term solutions that can generate lasting value for children, families and communities.

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APPENDIX

Interview: Mary Rose Castillo – Chief Operations Officer at Live Connection S.r.l.,

Interviewed 27 April 2026.

A) PROJECT ORIGINS & STRATEGY

How did the idea of SuperMarco originate? Was it based on a market need, personal experience, or client demand?

The idea of SuperMarco originated primarily from an identified educational need: finding a more effective way to help children recognize and overcome unhealthy habits through engaging, age-appropriate content. Rather than using a traditional instructional format, the project was designed to translate prevention, health, and wellbeing into a narrative experience that felt playful, relatable, and non-judgmental. Based on the available materials, it appears to be rooted more in mission-driven educational design than in a single client request, and it is strongly aligned with Live Connection's broader vision of creating original, experiential, and interactive learning tools for children, families, and schools.

Did you conduct any form of market research or informal testing?

Yes. We carried out preliminary market research and informal validation in different real-world contexts. In particular, we observed and gathered feedback from schools, from a dental practice environment, and through direct discussions with psychologists and pediatricians in the Lazio region. This helped us better understand children's behavioral habits, the educational needs perceived by families and professionals, and the kinds of preventive messages that could be communicated more effectively. Rather than relying only on internal assumptions, we used this multi-perspective comparison to shape SuperMarco as a project that would be both educationally relevant and practically useful.

What problems were you trying to solve initially and how did you think your idea could help solve them?

Initially, the project was trying to solve a communication problem: many important messages about prevention and healthy habits are difficult to make meaningful for children when they are presented in an abstract or corrective way. SuperMarco addresses this by transforming invisible or routine problems into concrete, memorable characters and situations. Bad habits become "monsters," while healthy choices become "superpowers." This makes topics such as oral hygiene, sleep, posture, kindness, and sustainability easier to understand, less intimidating, and more actionable in everyday life. The goal was to inform children and help them internalize positive behaviors through identification, imagination, and repetition.

How did you identify the target users at first?

The initial target users were clearly children, especially those in the age range that responds well to visual storytelling, symbolic characters, and guided play. This is evident from the language, the comic format, the interactive design, and the focus on everyday habits. At the same time, the project also recognizes a secondary audience made up of parents, schools, and educators, since the materials explicitly place SuperMarco within a wider educational framework developed for schools, families, and professionals. In other words, children were the primary users, but adults were seen as facilitators of the learning experience.

What were the strategic objectives of the project at the beginning? Are they still the same now? What about the future?

At the beginning, the strategic objectives were to promote prevention and wellbeing in a way that children could engage with, to encourage better daily habits and to create an educational tool that supported growth, autonomy, confidence, and participation. These objectives still appear to remain central today, although the project now seems even more clearly positioned around prevention as a broader educational mission, not only oral hygiene but also emotional, behavioral, and environmental wellbeing. Looking ahead, the most coherent future direction would be to expand SuperMarco into a broader educational ecosystem: more stories, more preventive themes, stronger school-family involvement, and more participatory experiences that allow children to become active contributors rather than passive readers. The invitation to join the “Amici di Super Marco” community already points to that.

What would you say it's the most successful feature of this platform?

The most successful feature of SuperMarco is its ability to turn prevention into a child-centered narrative system. In particular, the use of “monsters” to represent negative habits and SuperMarco as a positive role model is a very effective innovation feature, because it simplifies complex messages without trivializing them. It gives children a concrete emotional and visual framework for understanding cause and effect. A second very strong feature is interactivity: the coloring pages and empty speech bubbles do not position the child as a passive consumer, but as a co-creator of the story. That combination of storytelling, symbolic design, and participation is probably the project's strongest distinguishing element.

B) LEAN STARTUP

How did you define the first version of the platform (MVP)?

The first version of the platform was defined through the contribution of training experts and psychologists, who recognized that traditional training models were no longer sufficient to fully engage users or support effective learning outcomes. The MVP was therefore conceived as a more interactive, user-centered environment, designed to make learning more engaging,

practical, and accessible. The idea was not simply to digitize content, but to create a training experience that responded to new educational needs and to the growing demand for more dynamic and participatory learning paths.

Which features were considered essential at the beginning?

At the beginning, the essential features were usability, interactivity, and accessibility for both sides of the experience. The platform needed to be user-friendly for those designing and managing the learning process, but also intuitive and engaging for learners accessing the content. Interactivity was considered crucial from the start, because the goal was to move beyond passive content delivery and create a learning environment in which users could participate actively and feel more involved in the educational journey.

How did you prioritize what to include and what to exclude?

We prioritized features by balancing educational value with business sustainability. In practical terms, we focused first on the elements that could generate a more immediate return on investment, so that the project could become economically sustainable and create the conditions for further development. Budget considerations played an important role in deciding what to include in the first release and what to postpone. This meant concentrating on the most strategic and impactful functionalities first, while leaving more advanced or non-essential features for later phases once additional resources became available.

During the development, did you face any constraints?

Yes, the project faced several constraints, especially in terms of budget and team size. To manage costs more effectively, we activated partnerships, including collaborations with ECM providers, which helped distribute part of the investment. From an organizational point of view, the internal team at Live Connection was very lean, with two main figures coordinating the project, while the software development of the People platform was outsourced to a specialized software company. In terms of timing, however, the work was completed successfully thanks to a clear timeline and careful planning. The overall process combined a strong internal strategic vision with external technical support, allowing the platform to be developed efficiently despite limited initial resources. People itself is officially presented as an interactive, intuitive, user-centered platform developed by Live Connection to innovate the fields of training and work.

How do you currently evaluate the effectiveness of the platform?

We currently evaluate the effectiveness of the platform mainly through user reviews and digital surveys. These tools allow us to monitor how the learning experience is perceived by both participants and trainers, and to understand whether the platform is achieving its educational objectives in terms of engagement, usability, and learning impact.

Do you collect feedback from users? How?

Yes, feedback collection is an integrated part of the platform experience. The platform automatically sends surveys at different stages of the learning journey: during the course, immediately after the course, three months after completion, one year later, and again after three years. This applies both to learners and to trainers. This structured feedback system allows us to collect insights not only on the immediate user experience, but also on the medium- and long-term perceived effectiveness of the training.

What kind of data (qualitative vs quantitative) do you analyze? How?

We analyze both qualitative and quantitative data. On the quantitative side, we look at survey responses, participation patterns, and measurable indicators related to the training experience. On the qualitative side, we examine written feedback, comments, and more descriptive evaluations provided by users and trainers. The combination of these two dimensions helps us build a more complete understanding of how the platform performs, both in terms of measurable outcomes and perceived value.

Have you conducted any tests or experiments after the launch? If yes, what kind and what were the main results?

Yes, after the launch we carried out further testing, particularly in collaboration with universities. These experiences showed very positive results: higher engagement, greater interactivity, and a more effective training experience overall. The post-launch feedback confirmed that the platform's interactive approach was better able to support participation and learning compared to more traditional training methods.

Given the feedback, have you made pivots or adjustments to your business strategy?

Yes, we have made several adjustments based on collected feedback, especially in relation to the Restart project, where we acted as providers for UIL and ENFAP. In that case, we supplied the People platform to support both training and staff onboarding, reaching more than 1,800 users across five regions in Southern Italy. The feedback we received led us to improve the user experience in practical ways: we created integrated guides within the platform, made key buttons more visible, and added clearer descriptions under specific features. These were not radical changes, but they were important refinements that made the platform more intuitive and effective for large-scale use.

What about significant changes? Have you ever thought of changing direction significantly? If yes, what triggered that decision?

No, we have never considered a significant change of direction in terms of our core business, because we have always remained within the field of training and education. What has evolved

over time is the range of sectors we have worked with: from tech and soft skills to ECM training for healthcare professionals, and also hosting master's programs for some universities. At an earlier stage, we initially thought about directly involving individual professionals and having them deliver their own training courses through the platform. However, when that approach did not allow us to enter the market as effectively as expected, we shifted toward collaborating more closely with training institutions and universities. So the adjustment was more about market positioning than about changing our core mission.

What have been the biggest mistakes or lessons learned?

One of the biggest lessons we learned is that the market is often not immediately ready for innovation, even when the solution itself is valid. Having an innovative product is not always enough on its own: timing, adoption culture, and the credibility of distribution channels are equally important. This taught us that innovation must also be accompanied by the right partnerships and by a strong understanding of how the market is prepared to receive change.

Going back, would you have used a different approach since the beginning?

Yes. Looking back, we would probably have chosen from the beginning to work directly with training institutions and universities, instead of spending about a year trying to involve freelance professionals as course providers. That initial phase was useful in helping us understand the market better, but in hindsight, starting earlier with institutional partners would likely have accelerated growth, improved positioning, and made market entry more efficient.

C) PROJECT-BASED ORGANIZATION

How is the team working on the project structured? How many people are involved, what are their main roles?

The project is managed by a small multidisciplinary team with clearly defined roles. A psychologist is involved both in the educational development of the project and in the creation of the songs, helping ensure that the content is engaging and appropriate for children. The art director oversees the visual identity and creative direction of the project, while the COO manages and coordinates the overall activities, ensuring that the operational side runs smoothly. In addition, we collaborate with Dental Bios for the oral prevention and hygiene component, which strengthens the scientific and educational credibility of that area.

How do you coordinate tasks and responsibilities?

We coordinate tasks and responsibilities through a combination of regular meetings and daily communication tools. Every two weeks, the team meets to compare progress, review analytics, and define new strategies. In addition, we use a WhatsApp group for ongoing communication

and Google Drive to manage shared documents and project materials. This allows us to keep the workflow flexible while maintaining alignment across the team.

How are decisions made? Are they centralized or collaborative?

Decisions are made collaboratively. The project is developed through team discussion and shared evaluation, rather than through a purely top-down management model. This collaborative approach is particularly important because SuperMarco combines educational, creative, and strategic dimensions, so different perspectives are needed in order to make effective decisions.

Is the project managed as a standalone unit or is it integrated with other activities?

The project is integrated with other activities rather than being managed as a completely standalone unit. SuperMarco is not limited to songs, comics, or live events, but is also connected to broader educational initiatives, including training activities aimed at parents. This makes it a cross-functional project that combines content creation, prevention, education, and community engagement.

How frequently do you update or revise the project?

The project is generally reviewed and updated every three months. This regular revision cycle allows the team to monitor results, assess what is working well, and introduce adjustments or new ideas in a structured way.

What are the main challenges in managing a small, project-based team?

The main challenge is that there are often many tasks to manage with a limited number of people. In a small project-based team, this can create pressure in terms of time, coordination, and workload distribution. However, the use of AI tools has helped us handle these demands more effectively, supporting both productivity and organization and making it easier for a small team to manage a broader range of activities.

D) RESOURCES & MANAGERIAL DECISION-MAKING

What is the core value proposition of SuperMarco and what makes it different from other digital learning tools?

The core value proposition of SuperMarco is its ability to turn prevention and healthy habits into an engaging educational experience for children. Instead of teaching through a purely traditional or corrective approach, SuperMarco uses storytelling, music, visual identity, and interactive content to help children understand important topics such as oral hygiene, sleep, posture, sustainability, and kindness in a way that feels playful, accessible, and emotionally engaging. What makes it different from other digital learning tools is that it is not based only on content delivery, but on participation: children are invited to interact, imagine, color, and

identify with the character, becoming active participants in the learning process rather than passive users. This makes the project more experiential, memorable, and inclusive.

What are now your target users and how do you plan on reaching them?

Today, the target users of SuperMarco are children as the primary audience, but also parents, schools, and educational professionals as key intermediaries and facilitators. Children are at the center of the project because the content is designed in a language and format that is suitable for them, while parents and schools are essential because they support the adoption and reinforcement of the educational messages in everyday life. We plan to reach them through an integrated strategy that combines educational content, songs, comics, live events, prevention activities, and parent-oriented training. In this sense, SuperMarco is not just a children's project, but a broader educational ecosystem that creates connections between families, schools, and preventive education.

How do you envision the project generating value in the future?

In the future, we envision SuperMarco generating value by expanding both its educational impact and its network of collaborations. The growth strategy is based on strengthening the project as a multiplatform educational initiative: not only comics and songs, but also in-person events, prevention campaigns, training for parents, and collaborations with schools and specialized partners. Its future value lies in becoming a recognizable educational brand in the field of prevention and child wellbeing, capable of combining entertainment, training, and social impact. The long-term objective is to scale the project through partnerships, broader community involvement, and the development of new content and learning experiences that respond to the evolving needs of children, families, and educators.

E) USER ADOPTION & MARKET (TAM MODEL)

What do you think are the main factors that would encourage users to adopt the platform? What are the main barriers to adoption?

The main factors that encourage adoption are usefulness, simplicity, trust, and engagement. SuperMarco is useful because it translates important topics such as oral hygiene, sleep, posture, kindness, and sustainability into concrete, everyday learning experiences for children. Simplicity is another key factor, because the project uses clear language, recognizable characters, and interactive elements that make it easy to understand and use. Trust is also essential: parents, schools, and educators are more likely to adopt the project when they perceive it as educationally sound, child-friendly, and supported by qualified professionals. Finally, engagement plays a major role, because SuperMarco does not rely on passive learning but on participation, imagination, and emotional involvement. The main barriers to adoption

are lack of awareness, initial skepticism, and the risk of being perceived as “just entertainment” rather than as a serious educational tool. In some cases, people may also be cautious about digital tools aimed at behavioral learning, especially when they concern children, because they want reassurance about quality, ease of use, and real educational value. For this reason, credibility, clarity, and communication are crucial in supporting adoption.

Do you think users trust digital tools for behavioral learning? Why or why not?

Yes, but trust is not automatic. Users tend to trust digital tools for behavioral learning when they feel that the tool is well designed, easy to use, and backed by a credible educational vision. In the case of SuperMarco, trust is strengthened by the fact that the project is not based only on technology, but on a broader educational framework that involves creativity, prevention, and support from adults such as parents, educators, and professional partners. In other words, digital tools are trusted more when they are perceived not as replacements for human guidance, but as supportive and well-structured learning environments. At the same time, some users may still be hesitant, especially in areas related to behavior and habit formation, because these are sensitive topics. Trust therefore depends on whether the digital tool is seen as meaningful, accessible, and connected to real educational outcomes rather than as a superficial or purely promotional product.

How do you ensure that the platform is easy to use for non-expert users? What could help an easier adoption?

We ensure ease of use for non-expert users by keeping the experience intuitive, visual, and highly accessible. SuperMarco is built around simple messages, familiar situations, and interactive content that children and adults can immediately understand. The project avoids overly technical language and instead uses storytelling, songs, illustrations, and participation to make learning natural and enjoyable. The fact that children can color, imagine, and actively contribute to the experience makes the tool easier to approach, even for users with no specific educational or digital expertise. What could support easier adoption even further is clear onboarding, integrated guidance, stronger communication toward parents and schools, and visible endorsement from trusted educational and health-related partners. The easier it is for users to understand the purpose, the benefits, and the practical way to use the project, the more likely they are to adopt it.

What do users value the most in the platform?

What users value most is the combination of educational value and engagement. SuperMarco makes important topics easier to understand without making them feel heavy or judgmental. Users appreciate that it helps children learn through stories, characters, and interactive activities

rather than through a purely traditional instructional model. Another highly valued aspect is that the project is participatory: children are not just receiving content, but are invited to become active contributors through coloring, imagination, and interaction. This makes the experience more memorable, inclusive, and emotionally effective. In addition, parents and educators are likely to value the fact that SuperMarco connects learning with daily life, helping children develop positive habits in a way that is meaningful and enjoyable.

F) FUTURE DEVELOPMENT

What are the next steps for SuperMarco? New features? Expansion?

The next steps for SuperMarco include the release of a new song and a new comic, which will be developed in two different versions: one for children aged 3–6 and another for children aged 6–10. This is an important step because it allows the project to become more age-sensitive and better tailored to different developmental stages. In addition, we are already organizing a summer event for children and their families, once again centered on the theme of prevention in healthcare. So, the project is expanding not only through new content, but also through more direct educational and community-based experiences.

Are you planning on scaling the platform beyond Italy?

At the moment, the project is focused on Italy. The priority is to strengthen its positioning, partnerships, and impact at the national level before considering international expansion.

What role do you see technology, such as AI, playing in the future? Do you think it would impact this project?

Yes, definitely. AI already plays a fundamental role in the project and is expected to become even more important in the future. Combined with human expertise, it supports the creation of educational content such as coloring materials, early creative drafts, and the musical bases for the songs. In this sense, AI is not seen as a substitute for human creativity, but as a tool that enhances productivity, speeds up content development, and makes it easier for a small team to produce high-quality educational materials. For a project like SuperMarco, this can have a significant impact by making innovation more accessible, scalable, and sustainable over time.

G) FINAL QUESTIONS

In your opinion, what is more important in early-stage projects: speed of execution or quality of development? Why?

Quality of development is more important than speed of execution, especially in the early stages of a project. If you take the time to understand the target users properly and build a high-quality solution around their real needs, you are much more likely to achieve meaningful and

sustainable results. Speed can be useful, but if the development process is rushed, there is a risk of overlooking essential elements that are fundamental to the success of the project.

How do you balance innovation and risk in such an uncertain environment?

We balance innovation and risk through continuous market analysis. This means constantly monitoring industry news, innovative training platforms, specialized portals, and relevant articles in order to stay updated on trends, emerging needs, and potential changes in the market. This ongoing observation helps us make more informed decisions and reduce uncertainty while still maintaining an innovative approach.

What is the biggest challenge for startups developing digital platforms today?

One of the biggest challenges for startups developing digital platforms today is access to financial resources. Having a strong idea is not enough on its own: building, improving, and scaling a digital platform requires funding, and limited financial resources can slow down development, reduce experimentation, and make growth more difficult. In many cases, the real challenge is not innovation itself but having the economic means to support it over time.

If another startup wanted to develop a similar digital platform, what would you recommend they do differently or focus on more?

We would recommend focusing very carefully on building the right team and choosing partner companies that truly share the same vision. A digital platform is not developed only through technical execution, but through alignment between strategy, values, and long-term goals. Having the right people and the right partners from the beginning can make a major difference in terms of coherence, efficiency, and the overall strength of the project.

Survey

User Perception of Digital Platforms for Children's Habit Development

This survey is part of a university research project that analyses how digital platforms can support parents in fostering positive habits in children, such as reducing excessive screen time and improving daily routines. The study is based on "SuperMarco", a project within the peopleweb.it platform, designed and developed specifically for parents. The project features a digital superhero who, through videos and social media content, acts as a role model to reinforce the development of healthier habits in children. For example, in the launch video "Lava Lava", a playful SuperMarco teaches children how to brush their teeth properly, through an engaging song. The objective of the survey is to better understand how potential users perceive this type of solution, what aspects they value the most, and whether they would be willing to adopt it in their daily lives. All responses are anonymous and will be used exclusively for academic purposes. The survey takes approximately 3 – 4 minutes to complete.

A) PROFILE (SHORT & DEMOGRAPHIC)

- *How old are you?*

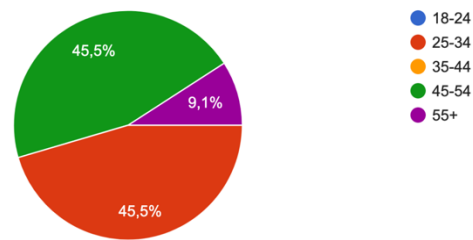
18 – 24

25 – 34

35 – 44

45 – 54

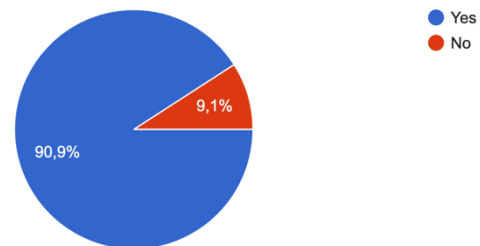
55+



- *Are you a parent?*

Yes

No



- *If yes, how old are your children?*

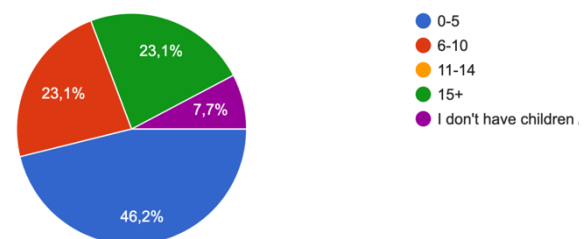
0 – 5

6 – 10

11 – 14

15+

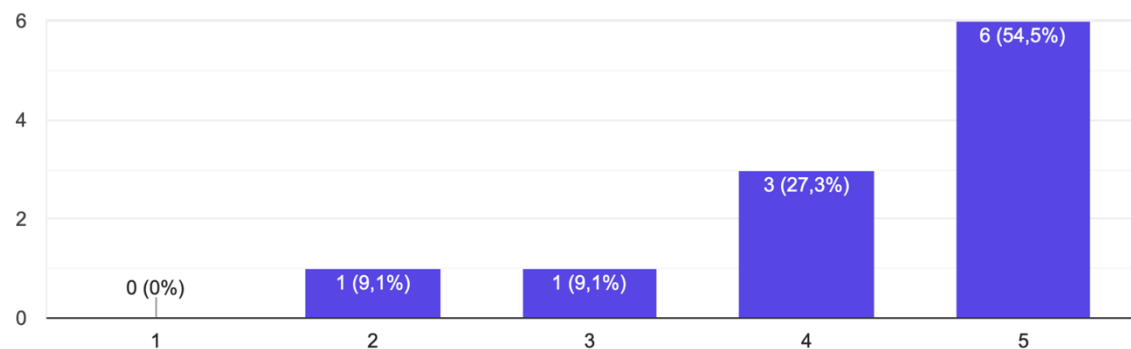
I don't have children



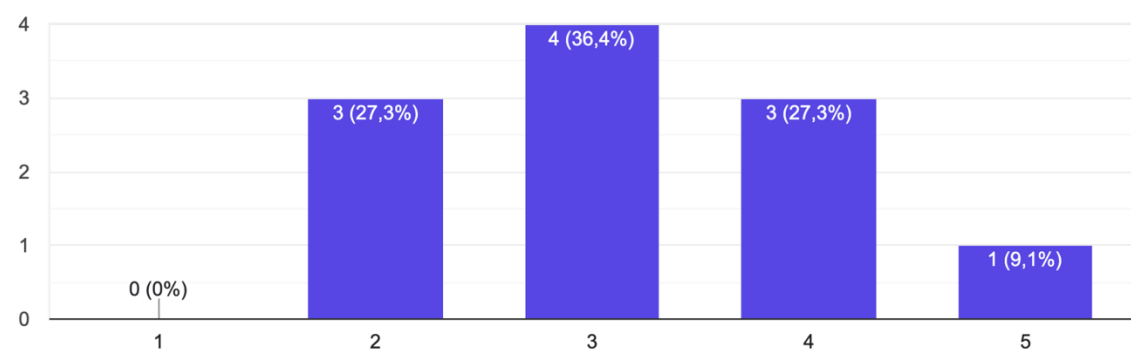
For the next questions: use of a 1-5 Likert scale: (1) Strongly disagree → (5) Strongly agree

B) DIGITAL HABITS

- *Children today use digital devices excessively.*

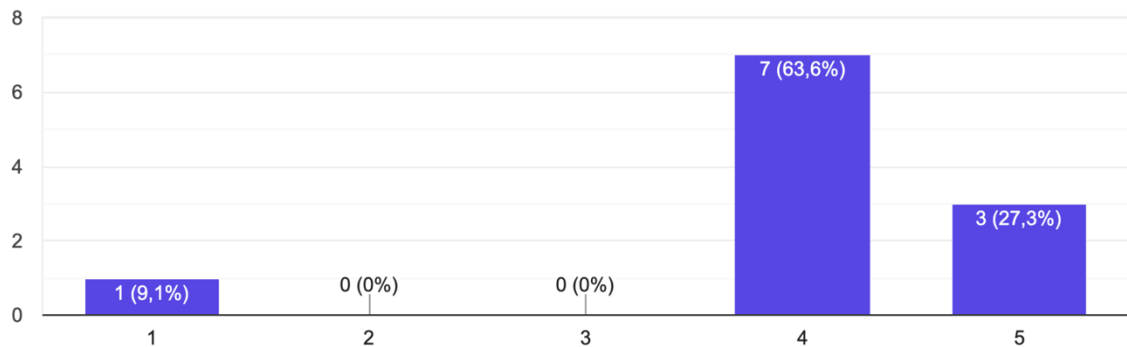


- *It is difficult for parents to manage children's daily habits (e.g. screen time, routines).*

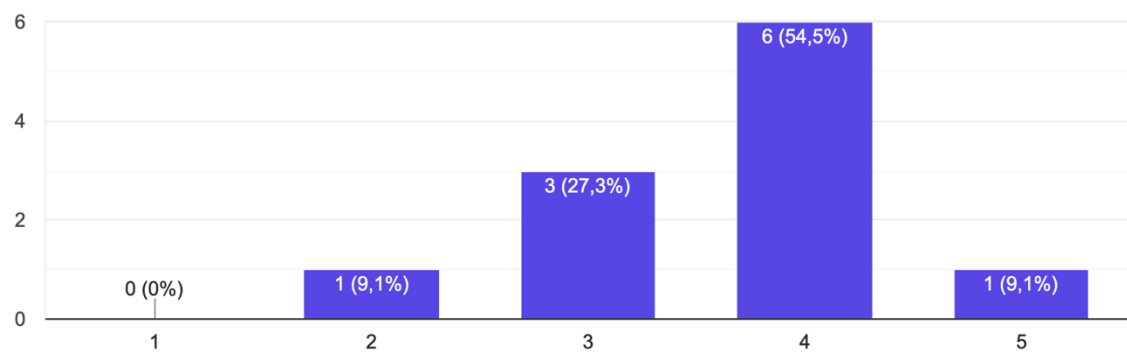


C) PERCEIVED USEFULNESS

- A digital platform could help parents teach children to develop better daily habits.*

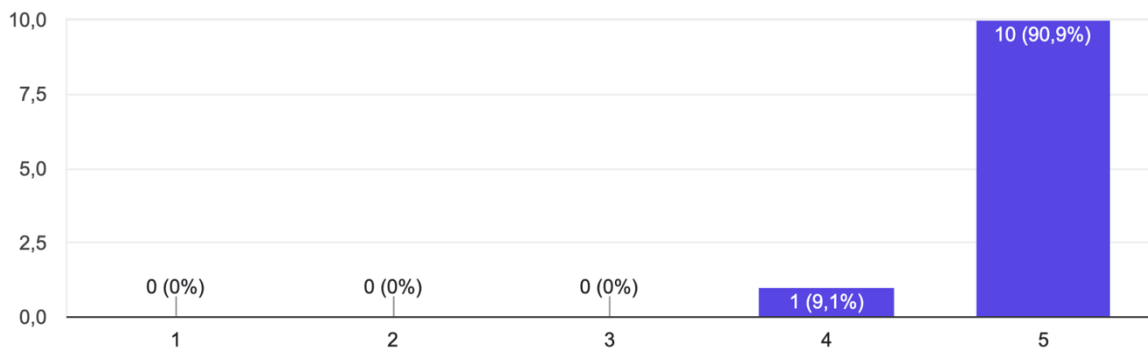


- A platform like this could support parents in managing their children's behavior.*

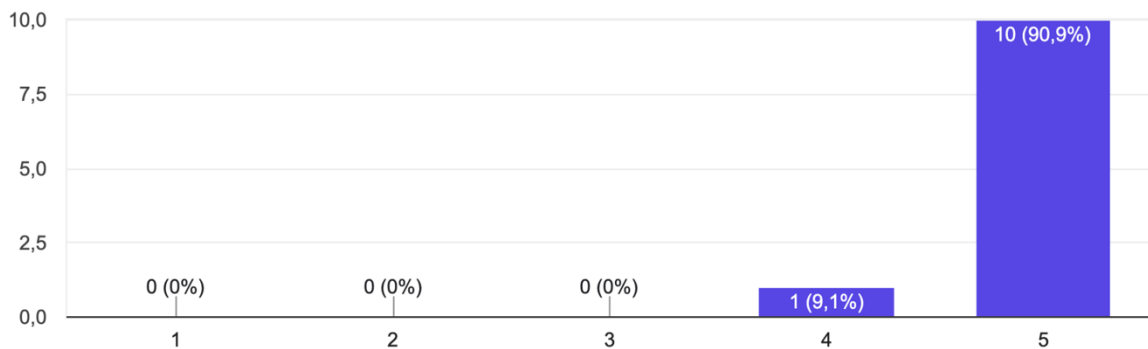


D) PERCEIVED EASE OF USE

- It is important that such a platform is simple and intuitive to use.*

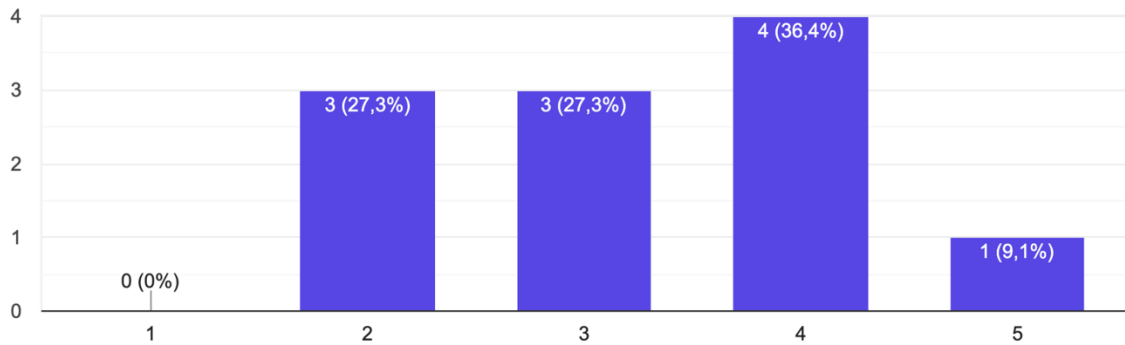


- I would prefer a platform that requires minimal effort to understand.*

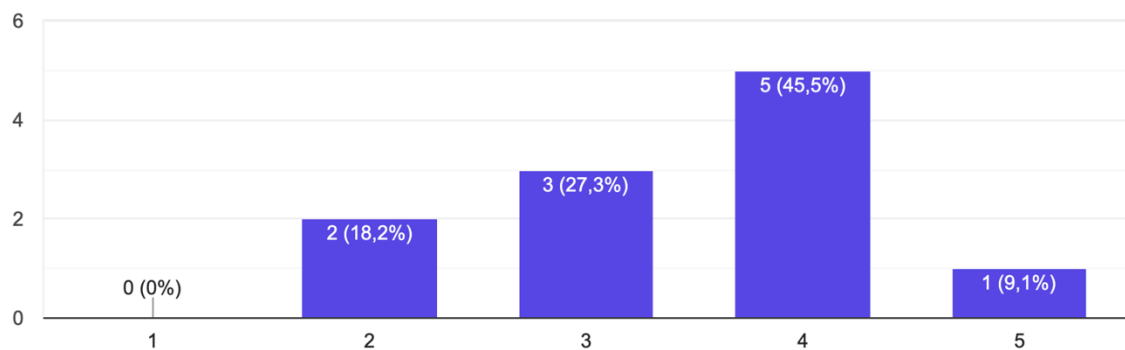


E) TRUST & ATTITUDE (TAM)

- I trust digital tools designed to support children's growth.*

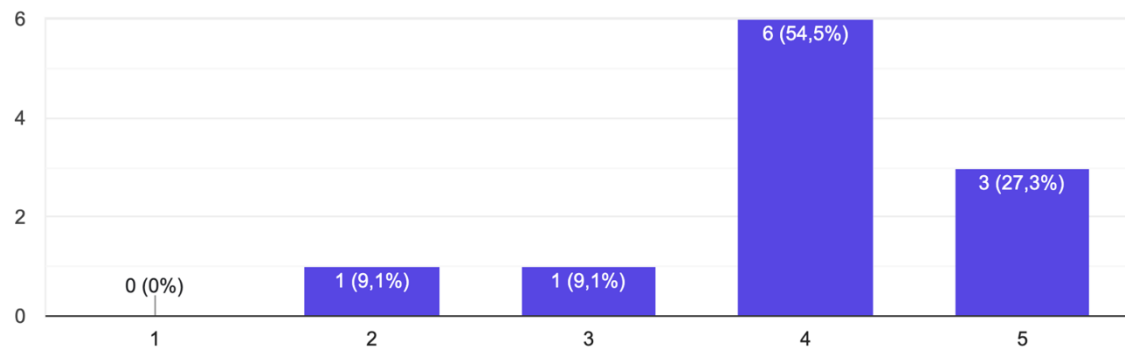


- I would feel comfortable using a digital platform to better manage my children's habits.*



F) BEHAVIORAL INTENTION

- I would consider using a digital platform such as SuperMarco.*



- I would recommend this type of platform to others.*

